

**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	March 19-22, 2018		
Media:	RCRA		
Regulatory Program(s)	Hazardous Waste		
Company Name:	US Department of the Army		
Facility Name:	White Sands Missile Range		
Facility Physical Location:	100 Headquarters Ave		
(city, state, zip code)	White Sands, NM 88002		
Mailing address:	100 Headquarters Ave		
(city, state, zip code)	White Sands, NM 88002		
County/Parish:	Dona Ana, County three others		
Facility Contact:	Susan Harrington		
FRS Number:			
Identification/Permit Number:	NM2750211235		
Media Number:			
NAICS:	928110		
SIC:			
Personnel participating in inspection:			
David Robertson	6EN-H1	Environmental Scientist	214 665 7363
Joyce Johnson	6EN-H1	Environmental Scientist	214 665 7363
Jaime Rodriguez	NMED	Environmental Specialist	505 222 9560
Aaron Coffman	NMED	Environmental Specialist	505 476 6019
Alex Mora	NMED	Environmental Specialist	505 222 9503
EPA Lead Inspector Signature/Date	David Robertson	<i>David Robertson</i>	
	{Inspector name}	Date	
Supervisor Signature/Date	<i>Dale Thrush</i>	<i>5-9-18</i>	
	Dale Thrush	Date	

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors David Robertson, and Joyce Johnson accompanied by NMED inspectors Jaime Rodriguez, Aaron Coffman, and Alex Mora arrived at the White Sands Missile Range for an unannounced inspection on May 19, 2018. The team met with [REDACTED] and all of the DPW-ENV department (See Appendix 3). I, David Robertson, presented my credentials to the White Sands Missile Range representatives and informed them that this was an EPA lead joint inspection to determine compliance with the Resource Conservation and Recovery Act. The scope of the inspection was a compliance evaluation inspection (CEI).

Due to security and safety protocols, White Sands Missile Range personnel took all photos and developed the photo log (Appendix 1) and no requested document copies were provided during the inspection. White Sands Missile Range sent copies of the documents after the inspection and after following their declassification protocol (Appendix 2).

FACILITY DESCRIPTION

White Sands Missile Range (WSMR) has been an active federal military installation since 1945. The facility covers over 3,200 square miles. The installation currently conducts missile testing and range recovery, provides the Army, Navy, Air Force and DoD with services for experimentation, testing, research, and training.

Section II - OBSERVATIONS

During site tours the EPA team was accompanied by [REDACTED] Other personnel accompanied the NMED teams visiting satellite accumulation areas.

Satellite Accumulation

The inspection team observed 75% of all satellite accumulation areas, 155 in total. No areas of concern were observed satellite accumulation areas.

Less Than 90 Day Storage Areas

The inspection team observed the two less than 90-day storage areas for hazardous waste on the facility. Access to these areas were managed with locked fences. The units were marked with appropriate signage (Appendix 1, Photographs 5 and 11).

Hazardous waste was accumulated in drums in the 10K less than 90-day storage area. A double row of drums was separated by an aisle space of approximately 10" (Appendix 1, Photographs 7-9). Movement of emergency equipment would require at least 36" of aisle space. While inspectors were present, the facility moved drums in order to create adequate aisle space (Appendix 1, Photograph 10; AOC Resolved 1). The inspection team observed the weekly inspection log for this less than 90-day storage area. The inspection log noted that there was adequate aisle space between containers at the unit. The inspection team suggested updated training for the unit manager that completed the inspection log. According to [REDACTED] the unit manager received new training on adequate aisle space before the inspection team completed the inspection.

Both less than 90-day accumulation areas were equipped with appropriate emergency communication equipment (cell phone and radio in the case of the 10k less than 90-day area). The units had emergency evacuation maps posted as required by Annex L of the Hazmat Incident Control Plan. Those evacuation maps included phone numbers for emergency responders (Appendix 1, Photograph 12). However, those phone numbers did not include area codes, which are required for non-local cell phones to call the number. Updated maps with area codes were posted with area codes during the inspection (AOC Resolved 2).

Other than the missing area codes on the evacuation maps which were added during the inspection, no areas of concern were noted at the second less than 90-day storage area.

On-site Generators

Personal Protective Equipment (PPE) from Stallion Range

PPE generated from sampling wastewater at the Stallion Range was observed at the hazardous waste storage facility. The spent PPE was managed as F003 and F005, listed hazardous waste. The waste profile, PW 17 271 02 (Appendix 2, pp 113-118) stated that the waste PPE was generated from sampling a septic system, however, facility personnel stated that the PPE was actually generated when sampling the wastewater lagoon. According to facility personnel, the F003 and F005 listing was applied because the laboratory results indicated the presence of acetone. Facility personnel also stated that acetone is a common laboratory contaminant. Following the inspection, the facility provided an email indicating that a review of operations at the Stallion Range determined that only domestic sewage is discharged to the lagoon and a new profile indicating that the spent PPE is non-regulated was generated (PW 18 106 02; not provided). (AOC Resolved 3)

GTO Wash Rack Sump

The facility operates a vehicle/equipment wash bay at Ground Target Operations (GTO). The spent water from the wash bay drains via a trough to an in ground sump (Appendix 1, Photographs 29-37). According to waste profile #MT 18 030 01 (Appendix 2 pp 134-137), the spent wastewater meets the listing F003 and exhibits the hazardous waste characteristics D006 and D008. The sludge removed from the unit, profile #MT 18 029 07, was found only to meet the F003 listing (Appendix 2 pp 138-159). Spent wastewater from the sump is pumped to an adjacent RCRA exempt wastewater reclamation unit. The initial sump managing the spent hazardous wastewater does not meet the requirements of a RCRA subpart J tank (no secondary containment, no spill and overfill protection, no engineering certification, etc.). The wastewater reclamation occurs in a RCRA exempt recycling unit. (AOC 1)

Raytheon

The inspection team toured Raytheon facilities supporting the Patriot and Hawk missile programs. Waste generation was not observed due to safety and security protocols, but several satellite accumulation areas were observed. No areas of concern were noted in these areas.

Following the tour of the Raytheon facilities, the inspection team randomly requested a tour of several buildings that were observed from the road. The fenced area the team requested to tour included Building 21785, 21780, a "Hawk" trailer, two empty mobile sheds, and one building that was inaccessible. All but one of the identified buildings are managed by Raytheon. The remaining building was unavailable to tour because on-site personnel could not gain access and were unaware of who controlled access. The toured buildings housed electronic equipment related to the Hawk program (Appendix 1, Photographs 24-28). Outside the buildings, electronic equipment, including a cathode ray tube (CRT) computer monitor, was stored exposed to the elements (Appendix 1, Photograph 25). In addition, a CRT was observed and visually confirmed by [REDACTED] in one labeled box indoors (Appendix 1, Photograph 27). The second labeled monitor box was not opened. Finally, spent fluorescent bulbs were observed in the Hawk trailer (Appendix 1, Photograph 28). According to Raytheon personnel, this material has not been on any inventory for over 20 years. This material is considered disposed by storage in lieu of disposal. The inspection team was unable to access the third building. [REDACTED] Environmental Officer, stated that he had previously requested a tour of this building and could not determine who controlled access and was unable to gain access. Both the CRTs and the florescent bulbs are generally considered to be hazardous waste when disposed (AOC 2).

On-Site Landfill

During the inspection, the inspection team observed the Construction and Demolition landfill at the main post. During that tour, the team observed two lamps, one of which was mercury containing hazardous waste. Facility removed both lamps and moved them to their Universal Waste Storage area for management as Universal Waste. In addition to the spent bulbs, the team observed concrete lined steel piping of unknown previous use. Subsequent sampling indicated that the piping exhibited no characteristics of hazardous waste (Profile # 18 101 01). The facility has corrected all OBSERVED areas of concern at the landfill, however, the inspection team is concerned that previous disposal was unobserved during the inspection. It is requested that the facility review and update their inspection process prior to disposal in on-site landfills and train personnel empowered to send waste to the landfill to recognize potential hazardous waste. (AOC 3)

Universal Waste

White Sands Missile Range is a Large Quantity Handler of Universal Waste. Appropriately packaged, labeled and dated universal waste was observed in Building 1870B. In addition to the universal waste, WSMR had accumulated approximately 40,000 lbs. of spent lead acid batteries managed under 40 CFR Part 266 regarding recyclable materials. The batteries were managed in a manner designed to prevent discharges (Appendix 1, Photographs 13-14). The inspectors provided verbal guidance regarding the requirement for a waste determination and LDR notice when shipping batteries managed under part 266 off-site.

In addition to the waste batteries managed under Part 266, the facility generates and accumulates waste batteries in multiple locations throughout the base. During the inspection, the team observed spent "core" lead acid batteries at GTO (Appendix 1, Photograph 18) and the Logistics Readiness Center Supply Support Activity area (Appendix 1, Photographs 15-17) the battery storage did not meet the requirements for storage of universal waste and the batteries previously shipped under this "core" program did not meet the standards for management of recyclable materials under part 266 (there was no LDR provided to the receiver). [REDACTED] confirmed via email on 4/26/18 that there was no LDR notice sent to waste (core) battery receivers. The inspection team explained the three methods the facility could choose from to manage their waste batteries: universal waste, recyclable material under Part 266, or hazardous waste. (AOC 4)

Manifesting Requirements

The inspection team reviewed three years of manifests for wastes shipped from the facility and found two errors. First, manifest 010663500 FLE incorrectly listed the DOT proper shipping

name as warfarin, however, profile # AAF1705901 (for that waste stream) indicated that the waste was actually nicotine and the proper shipping name is nicotine. The appropriate waste code, P075, was used on the manifest.

Second, manifest 008734253FLE incorrectly listed that date of the waste offering (1/29/17) three days after the date of pickup by the transporter (1/26/17). (AOC 5)

Section III – AREAS OF CONCERN NOTED AND RESOLVED DURING THE INSPECTION

1 40 CFR 262.34 (a)(4) [ref 265.35] – REQUIRED AISLE SPACE

During the inspection, it was noted that drums marked “hazardous waste” were accumulated in the 10k less than 90-day storage area without adequate aisle space. Facility personnel moved drums creating adequate aisle space during the inspection resolving this AOC.

2 40 CFR 262.34 (a)(4) [ref 265.52] – CONTINGENCY PLAN

During the inspection, it was noted that the posted evacuation plans did not include area codes with the emergency responder phone numbers as required by Annex L of the Hazmat Incident Control plan. The documents were updated and reposted during the inspection resolving this AOC.

3 40 CFR 270.1 – PERMIT REQUIRED

The facility waste determination for spent PPE used in sampling wastewater from the Stallion influent to the sewage lagoon indicated that the PPE was contaminated with F003 and F005 hazardous waste from contact with the F003 and F005 containing waste in the lagoon. Disposal of F listed hazardous waste in a lagoon requires a RCRA permit for the operation of a surface impoundment. Following the inspection, the facility provided documentation indicating that there were no F listed solvents discharged into this sewer system. It was suggested that the facility review their waste determinations to ensure they are accurate.

Section IV – AREAS OF CONCERN

1 40 CFR 270.1 – PERMIT REQUIRED

The facility operates a vehicle/equipment wash bay at Ground Target Operations (GTO). The spent water from the wash bay drains via a trough to an in ground sump. The spent wastewater exhibits the hazardous waste characteristics of D006, D008, F003 and F005. Spent wastewater from the sump is pumped to a RCRA exempt wastewater reclamation unit. The initial sump managing the spent hazardous wastewater does not meet the requirements of a RCRA subpart J tank (no secondary containment, no spill and overfill protection, no engineering certification...). It was requested that the facility evaluate techniques to keep hazardous waste out of this unit or upgrade the unit to meet RCRA requirements.

2 40 CFR 270.1 – PERMIT REQUIRED DISPOSAL

During the inspection, the inspection team randomly requested to tour one specific fenced area containing several buildings. The area included Building 21785, 21780, a “Hawk” trailer, two empty mobile sheds, and one building that was inaccessible. The identified buildings are managed by Raytheon. The buildings housed electronic equipment related to the Hawk program. In addition, electronic equipment, including a cathode ray tube (CRT), was stored outdoors. CRTs were observed in one labeled box indoors, in addition, spent fluorescent bulbs were observed in the Hawk trailer. According to Raytheon personnel, this material has not been on any inventory for over 20 years. This material is considered disposed by storage in lieu of disposal. It was requested that the facility evaluate all material storage on site to determine whether hazardous materials are being properly stored.

3 40 CFR 270.1 – PERMIT REQUIRED DISPOSAL

During the inspection, the inspection team observed the Construction and Demolition landfill at the main post. During that tour, the team observed two lamps one of which was mercury containing hazardous waste. Facility removed both lamps and moved them to their Universal Waste Storage area for management as Universal Waste. In addition to the spent bulbs, the team observed concrete lined steel piping of unknown previous use. Subsequent sampling indicated that the piping exhibited no characteristics of hazardous waste. The facility has corrected all OBSERVED areas of concern at the landfill, however, the inspection team is concerned that previous disposal was unobserved during the inspection. It is requested that the facility review and update their inspection process prior to

disposal in on-site landfills and train personnel empowered to send waste to the landfill to recognize potential hazardous waste.

4 40 CFR 270.1 – PERMIT REQUIRED STORAGE

During the inspection, the team observed spent “core” lead acid batteries at GTO and SSA the battery storage did not meet the requirements for storage of universal waste and the batteries previously shipped under this program did not meet the standards for management of recyclable materials under part 266 (there was no LDR provided to the receiver). It was suggested that the facility either manage their used batteries as universal waste or provide a LDR notice to the receiver.

5 40 CFR 262.20 (a)(1) – MANIFESTING REQUIREMENTS

During the inspection, it was noted that two manifests had errors:

- Manifest 010663500 FLE incorrectly listed the DOT proper shipping name as warfarin, however, profile # AAF1705901 (for that waste stream) indicated that the waste was actually nicotine and the proper shipping name is nicotine. The appropriate waste code, P075, was used on the manifest.
- Manifest 008734253FLE incorrectly listed that date of the waste offering was on 1/29/17, three days prior to the date of pickup by the transporter on 1/26/17.

It was requested, that the facility review training on proper completion of manifests.

6 40 CFR 262.34 (ref 265.52 a-f) - CONTINGENCY PLAN

The Contingency Plan was not updated when changes were made to the permitted storage facility or when the primary and alternate emergency coordinators were replaced, neither were position descriptions and training certification for the Emergency Coordinators available for the inspectors. Documentation to show communication and coordination between the facility and local emergency response teams that may be called upon to provide emergency services did not exist. Local authorities had not agreed to the facility’s arrangements for emergencies. (One plan had not been revised since 2009.) The plan failed to list where emergency equipment is located and how to operate in the event of an emergency.

APPENDIX 1



Photo inside building 22903(A)
Showing broken lithium ion
batteries container 20180007



Photo showing Spill, Evacuation and
Emergency Plan without Area codes on the
Phone numbers



Photo of the inside of building 22905 (C)



Sign at the Hazardous Waste Storage Facility
building 22895



Sign at the 10-K 90 day Hazardous Waste Accumulation Site



Spill, Evacuation and Emergency Plan at the
10-K 90 day Hazardous Waste Accumulation
Site



Photo showing inadequate aisle space at the
10-K 90 day Hazardous Waste Accumulation
Site close up



Photo showing inadequate aisle space at the
10-K 90 day Hazardous Waste Accumulation
Site overall view



Photo showing inadequate aisle space at the 10-K 90 day Hazardous Waste Accumulation Site clipboard used for scale approximately 10 inches



Photo showing adequate aisle space after
corrective action at the 10-K 90 day Hazardous
Waste Accumulation Site



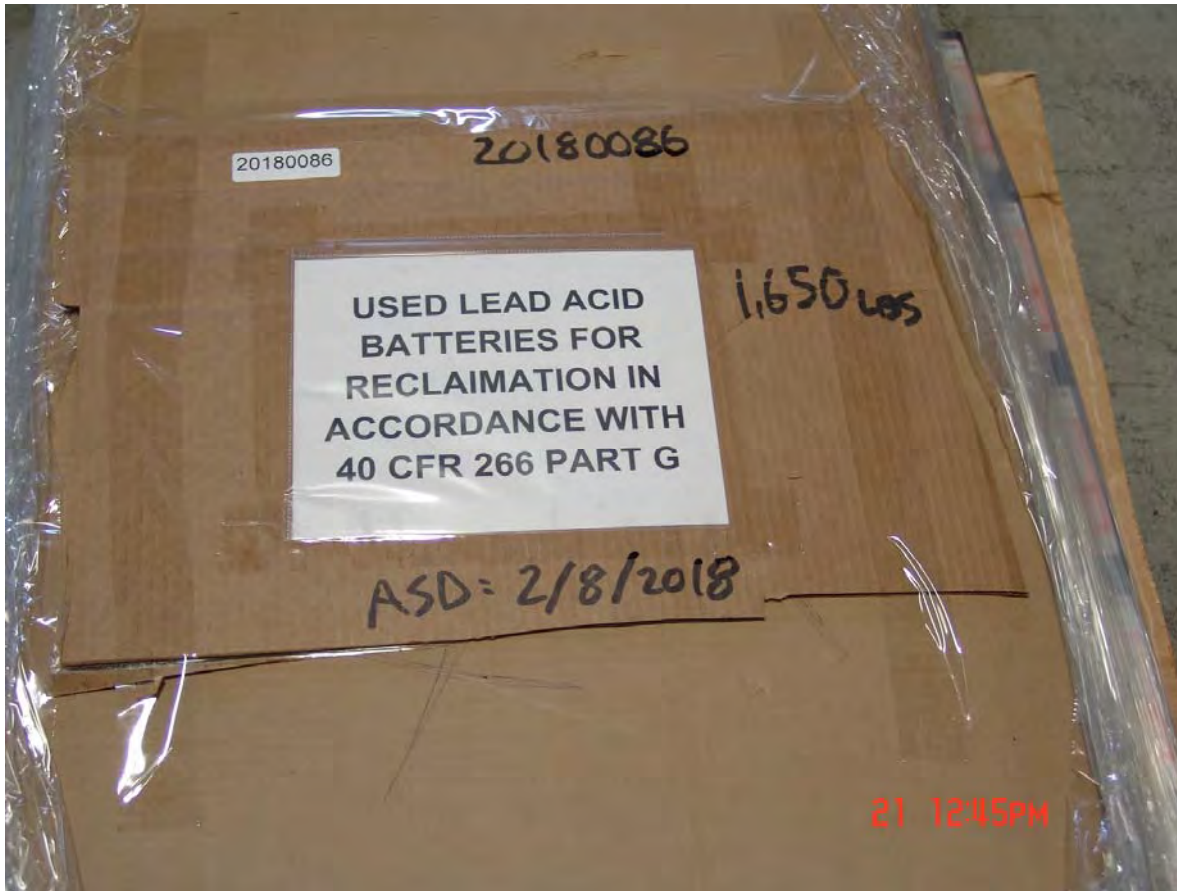
Sign at the Hazardous Waste Management
Center 90 Day Accumulation Site



Spill, Evacuation and Emergency Plan at the Hazardous Waste Management Center 90 Day Accumulation Site showing missing area codes.



Lead acid batteries managed under 40 CFR 266 part G at the Hazardous Waste Management Center showing neatly stacked and shrink wrapped batteries.



Lead acid batteries managed under 40 CFR 266 part G at the Hazardous Waste Management Center showing labeling



Lead acid batteries turned in as cores at the Logistics Readiness Center Supply Support Activity.



Lead acid batteries turned in as cores at the Logistics Readiness Center Supply Support Activity.



Lead acid batteries turned in as cores at the Logistics Readiness Center Supply Support Activity.



Lead acid batteries turned in as cores at the Materiel Test Directorate Ground Target Operations.



Used mercury vapor lamp found at the main post construction and demolition landfill.



Used mercury vapor lamp found at the main post construction and demolition landfill close up.



Light fixture of after the lamp had been removed for turn-in as universal waste.



Used halogen lamp found at the main post construction and demolition landfill.



Large pipe found at the main post construction and demolition landfill.



Used electronics stored outside of building
21780 by Raytheon.



Used cathode ray tube monitor stored outside of building 21780 by Raytheon.



Used electronics stored outside of building
21780 by Raytheon distant photo.



Used electronics stored inside of building 21785 by Raytheon.



Used fluorescent lamps stored inside of the Hawk Trailer north of building 21785 by Raytheon.



Wash rack at Material Test Directorate bldg.
2780 looking east.



Wash rack at Material Test Directorate bldg.
2780 drainage trough.



Wash rack at Material Test Directorate bldg.
2780 oily water sump.



Wash rack at Material Test Directorate bldg.
2780 cyclone filter.



Wash rack at Material Test Directorate bldg.
2780 cyclone filter solids removal drain.



Wash rack at Material Test Directorate bldg.
2780 sock filter.



Wash rack at Material Test Directorate bldg.
2780 main filtering unit and tank #2.



Wash rack at Material Test Directorate bldg.
2780 water heating unit and tank #3.



Wash rack at Material Test Directorate bldg.
2780 overall equipment view.



Drum of soil cuttings investigation derived waste from Solid Waste Management Unit 79.

**THIS CONTAINER
ON HOLD
PENDING ANALYSIS**

ON HOLD

CONTENTS Soil Cuttings
Investigation Derived Waste
SWMU 79 Investigation

ORIGIN OF MATERIALS SWMU 79

ADDRESS _____

CONTACT Benito Avalos 678-5359

**DO NOT TAMPER WITH CONTAINER
AUTHORIZED PERSONNEL ONLY**

03 21 2018

www.aicofarm.com • reorder # MHZW28

Label on drum of soil cuttings investigation derived waste from Solid Waste Management Unit 79.



Drums of investigation derived waste from
solid Waste Management Unit 62.

**THIS CONTAINER
ON HOLD
PENDING ANALYSIS**

ON HOLD

CONTENTS PPE Trash
Acetate Sleeves
IDW-SWMU Investigation

ORIGIN OF MATERIALS SWMU 62

ADDRESS _____

CONTACT Benito Avalos
575-678-5359

**DO NOT TAMPER WITH CONTAINER
AUTHORIZED PERSONNEL ONLY**

03 21 2018

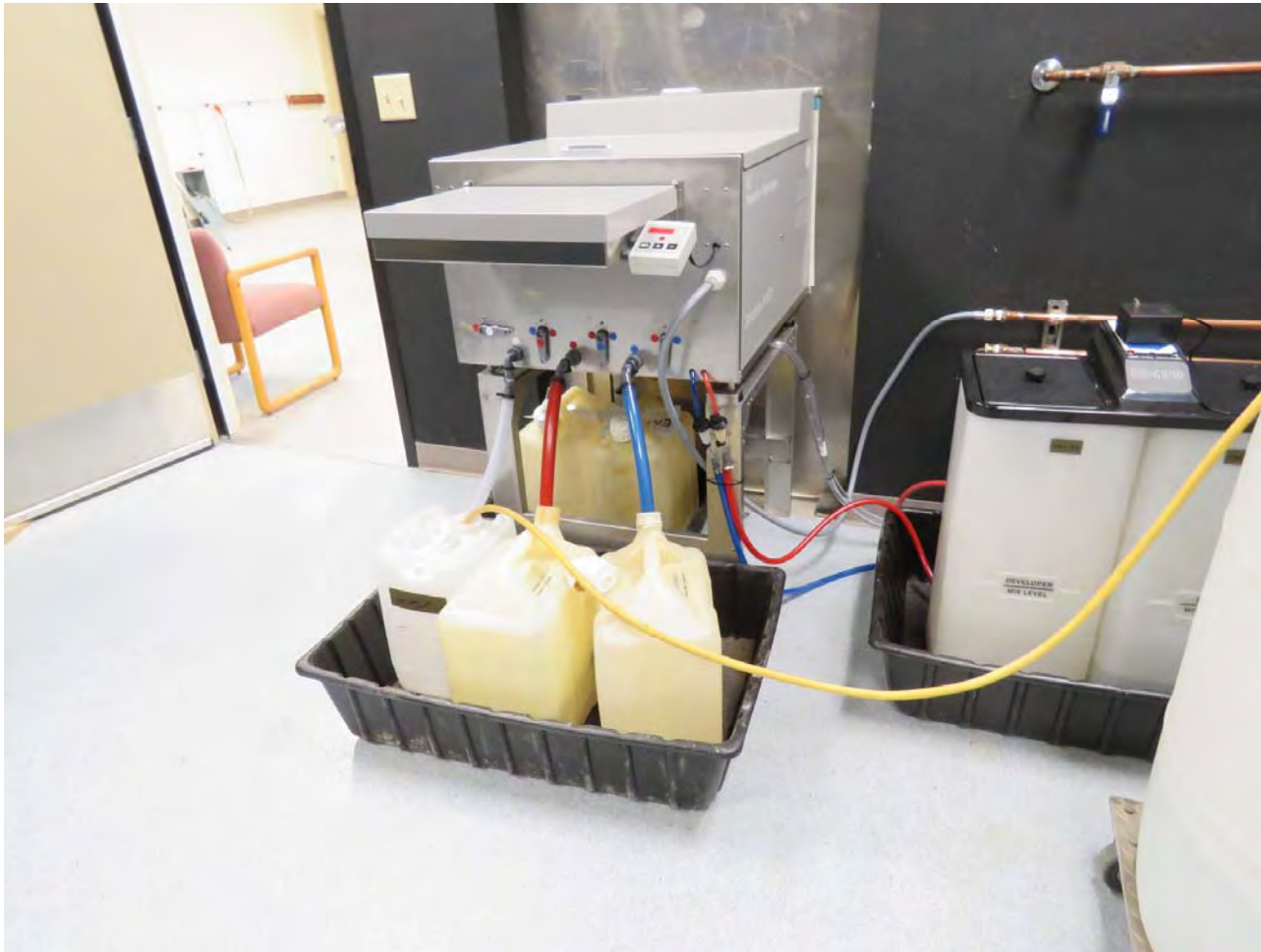
Label on drum of PPE trash acetate sleeves investigation derived waste from Solid Waste Management Unit 62.



Label on drum of soil cuttings investigation
derived waste from Solid Waste Management
Unit 62.



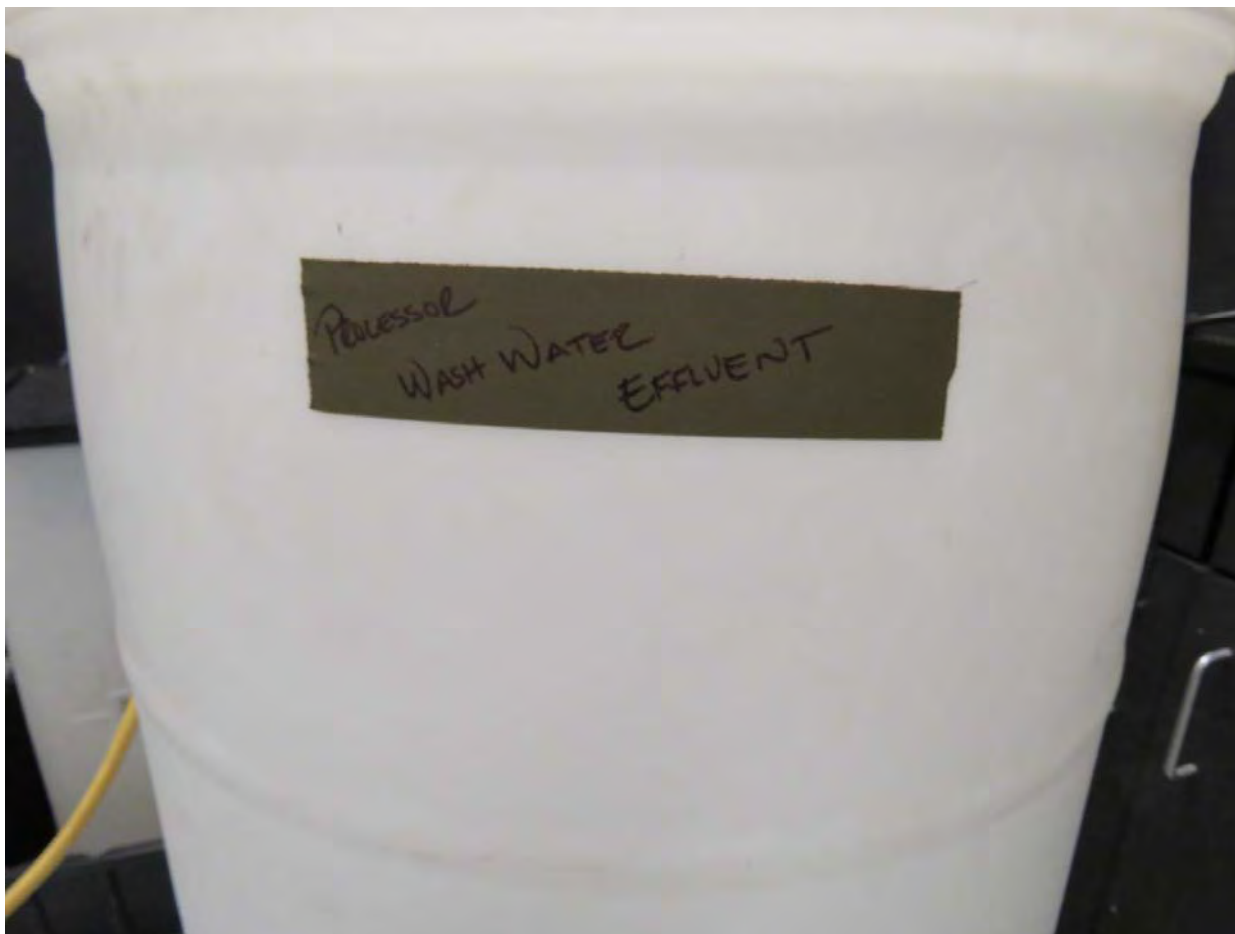
In-use lithium manganese dioxide batteries at building 1678.



Radiographic Test Facility photo developer machine building 21127.



Drum of processor wash water from old Photo developer machine building 21127.



Label on drum of processor wash water from old photo developer machine building 21127.



Satellite Accumulation Points at Building
21127



Satellite Accumulation Points at Building
21127 with containment open



Photo showing path from the dark room to the satellite accumulation points at building 21127



Photo showing path from the dark room to the satellite accumulation points at building 21127



Photo showing path from the dark room to the satellite accumulation points at building 21127



Photo showing path from the dark room to the satellite accumulation points at building 21127

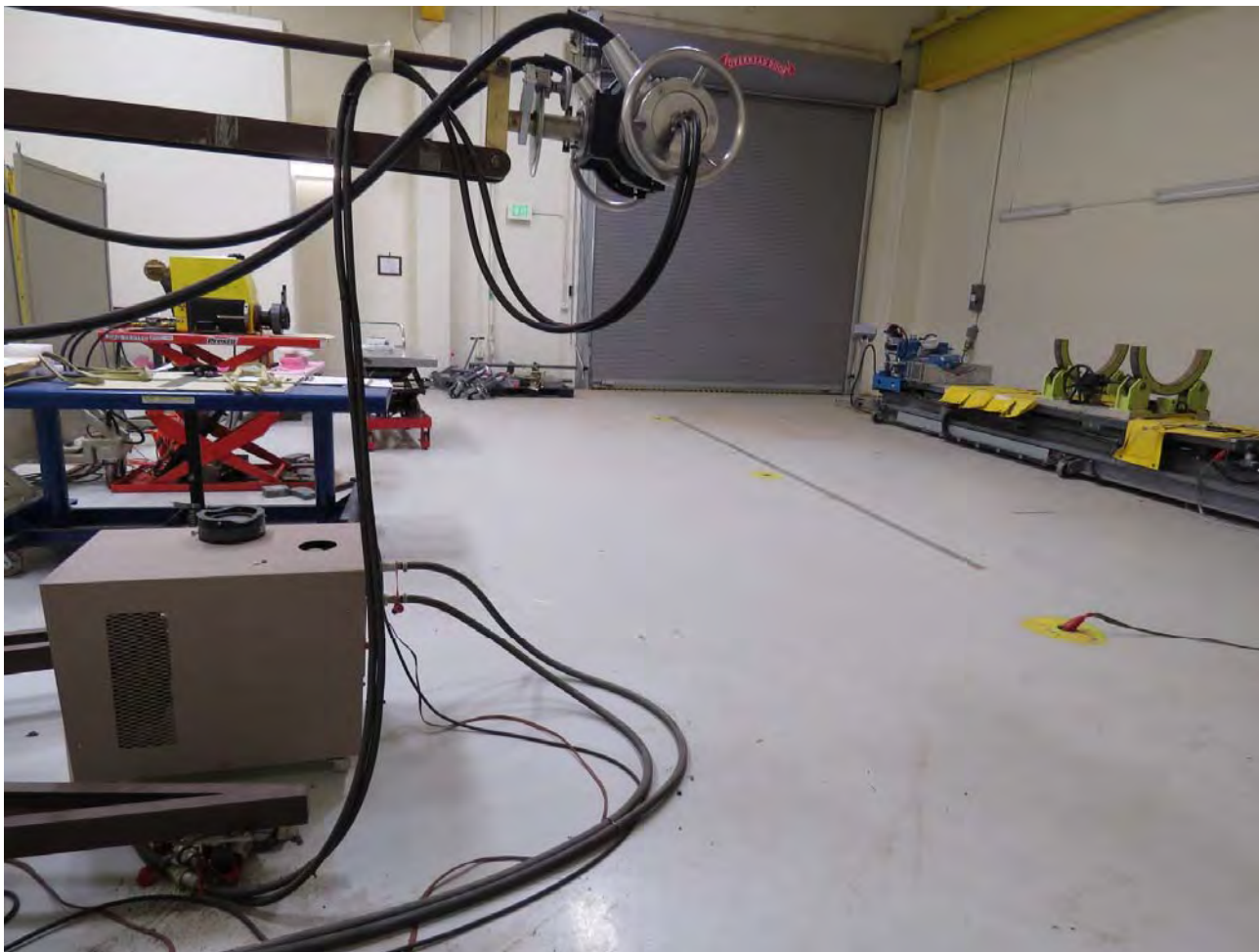


Photo showing path from the dark room to the satellite accumulation points at building 21127



Photo showing path from the dark room to the satellite accumulation points at building 21127

APPENDIX 2

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 28 Nov 2013		Name of HWMC Receiving Person: Hernandez			
Section A: Container Information					
Container No.(s): 2017-0872		Waste Profile ☒ Awaiting Analysis [] MSDS []	Waste Profile Number: NWS 17 276 01		
Accumulation Start Date: 28 Nov 2013					
Description/Nomenclature: Paint Removal And Rocket Debris	Liquid []	Solid ☒ Aerosol []	Cylinder [] Material to Waste []		
Type/Size of Container (DOT Code):	Gross Weight (Lbs): 14lbs				
DM [] Size:					
DF ☒ Size: 5 GAL					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []	Container Supplied by HWMC: Yes [] No ☒	Other [] (provide explanation in comments section below):			
Section B: Generator Information					
Organization/Contractor/Project: NWS/DPW/2031A					
Point of Contact: Nick Dimas	Signature: [Signature]	Telephone: (575) 647-4221			
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) ☒	1893 (5) []	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895# S-9	22895 PAD []
Container Moved To: S22895-S/9				Other:	
On (Date): 21 Feb 2014					
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs:	Min:	Container Cost:	
CLIN ID: NBDIC1	Cost Per Lb: \$25.75		Type:		Qty: \$
Total:	\$25.75		Type:		Qty: \$
1348 No.:		0186015			
Disposal Cost: \$25.75		Customer APC/JONO:			
Delivery Order No: 2819		Line Item No.: 17		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: North Wind
.... Missile Range Museum
Bldg. Number: 203
SAP ID: 203A
DODAAC: WM0M58

•Waste Profile•

NWS 17 276 01
Replaces: NWS 17 220 01
Contact: Aran Armstrong
Phone: 575-647-4221

1. Name of Waste: Paint Removal and Rocket Debris
2. Clin: NR01
3. Generating Process: Missile Restoration
4. Projected Volume: 500 lbs Mode of Collection: Drum
5. Comments: 2-Butanone was not used in this process and is suspected to be cross contaminated due to proximity of other activities.
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

•Chemical/Material Composition•

Physical State:

☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:

☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC ($\geq 10\%$) ☐ Low TOC ($<10\%$)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

Component

Concentration/Range

2-Butanone 2.5 mg/L

Cadmium 0.76 mg/L

Chromium 1.5 mg/L

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:

Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.:

PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached results for Test America Lab Report Sample ID: 680-141006-1.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Digitally signed by HARRISON.JON.EDWARD.14085
DN: cn=J.E. Harrison, o=U.S. Government, ou=DoD, email=j.e.harrison@usda.gov, c=US
Date: 2017.10.17 14:25:25 -0500

Date
03-Oct-17

H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: <u>30 Nov 2017</u>		Name of HWMC Receiving Person: <u>Hernandez</u>			
Section A: Container Information					
Container No. (s): <u>2017-1004</u>		Waste Profile ☒ Awaiting Analysis ☐	Waste Profile Number: <u>ES 17 023 01</u> <u>PW 17 019 01</u>		
Accumulation Start Date: <u>30 November 2017</u>		MSDS ☐			
Description/Nomenclature: <u>Oil RAAS & Related Material</u>	Liquid ☐	Solid ☒	Aerosol ☐ Cylinder ☐ Material to Waste ☐		
Type/Size of Container (DOT Code):	Gross Weight (Lbs): <u>12 LBS</u>				
DM ☐ Size:					
DF ☒ Size: <u>6.5 GAL</u>					
Other ☐ (state type & size):					
Container Received is Acceptable: Yes ☐ No ☒	Container Supplied by HWMC: Yes ☒ No ☐	Other ☐ (provide explanation in comments section below):			
Section B: Generator Information					
Organization/Contractor/Project: <u>DPW/ES/1870</u>					
Point of Contact: <u>John Hernandez</u>	Signature: <u>[Signature]</u>	Telephone: <u>575-678-4641</u>			
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) ☐	1891 (2) ☐	Cover (3) ☐	1892 (4) ☐	1893 (5) ☒	90 Day Yard Other ☐
22903 (A) ☐	22904 (B) ☐	22905 (C) ☐	22906 (D) ☐	S22895# <u>S-24</u>	22895 PAD ☐
Container Moved To: <u>S22895 S/24</u>				Other:	
On (Date): <u>21 Feb 18</u>					
Waste Disposal Cost:					
Time Req'd to Process Waste: Hrs: Min:		Container Cost:			
CLIN ID: <u>NOTE 2</u>		Cost Per Lb: <u>\$ 36.05</u>	Type:	Qty:	\$
Total: <u>FL022 116.80</u>		<u>\$ 36.05</u>	Type:	Qty:	\$
1348 No.: <u>0186008</u>					
Disposal Cost: <u>\$ 36.05</u>		Customer APC/JONO:			
Delivery Order No: <u>(2819) 116.80</u>		Line Item No.: <u>26</u>		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

●Generator●		●Waste Profile●	
Name: US Army, WSMR	Organization: Public Works Directorate	PW	17 019 01
Address: 100 Headquarters Ave.	Used oil storage for recycling (I)		
WSMR, NM 88002	Bldg. Number: 1870P	Replaces:	
US EPA ID: NM2750211235	SAP ID: N/A	Contact: Raymond Duran	
State ID: N/A	DODAAC: WM0M58	Phone: 575-878-4641	

1.	Name of Waste: Oily Rags and Related Material	
2.	Clin: 9504	
3.	Generating Process: Used Oil Operations	
4.	Projected Volume: 50 lbs	Mode of Collection: Drum
5.	Comments:	
6.	Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No	
7.	Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No Does waste meet applicable treatment standards already? ☒ Yes ☐ No	

●RCRA Characteristics●		●Chemical/Material Composition●	
Physical State: ☒ Solid ☐ Liquid ☐ SemiSolid ☐ Gas ☐ Other		Component	Concentration/Range
		Barium	0.223 mg/L
		Tetrachloroethene	0.0411 mg/L
Treatment Group: ☐ Wastewater ☐ Non-Wastewater ☐ Non-RCRA Waste (no other waste codes apply)			
☐ Ignitable (D001) Flash Point: N/A ☐ High TOC (>= 10%) ☐ Low TOC (<10%)			
☐ Corrosive (D002) pH: N/A			
☐ Reactive (D003) ☐ Water Reactive ☐ Cyanide Reactive ☐ Sulfide Reactive			
☐ Toxicity Characteristics:		●Shipping Information●	
☒ F- Listed Waste: F002		DOT Hazardous Material? ☒ Yes ☐ No	
☐ P - Listed Waste:		Shipping Name: Hazardous Waste, Solid, n.o.s. (Tetrachloroethene)	
☐ U - Listed Waste:		Waste Codes: F002	
		Hazard Class: 9 UN or NA No.: NA3077 PG: III	
		CERCLA Reportable Qty (RQ):	
		2008 Emergency Response Guidebook EM Resp No.: 171	

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See Alamo Analytical Laboratories Lab ID: 1611017-05

Generator Certification		
I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.		
WSMR HWMC Representative Name Jon Edward Harrison	Signature HARRISON.JON.EDWARD.14085 95882	Date 19-Jan-17

ALAMO ANALYTICAL LABORATORIES, LTD.

Date: 15-Nov-16

Analytical Results Report

CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: MERCURY, TCLP

Mercury

1311_HG

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.001

0.001

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

0.01

0.01

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: METALS, TCLP

Arsenic

1311_M

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.1

0.1

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: MERCURY, TCLP

Mercury

1311_HG

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.001

0.001

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: METALS, TCLP

Arsenic

1311_M

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.1

0.1

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: MERCURY, TCLP

Mercury

1311_HG

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.001

0.001

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 20160507

Analyses

TestName: METALS, TCLP

Arsenic

1311_M

Result

Limit

Units

DF

Date Analyzed

Analyst: JOL

11/11/2016

1

mg/L

< 0.1

0.1

mg/L

1

11/02/2016

Analyst: JOL

11/02/2016

1

mg/L

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CLIENT: EnviroKleen
Lab Order: 1611017
Project: DO 601, 602, 604 White Sands Missile Range
Collection Date: 11/2/2016 1:13:00 PM
Matrix: SOIL
Lab ID: 1611017-05
Client Sample ID: 602 2016

**ALAMO ANALYTICAL LABORATORIES, LTD.****Analytical Results Report**

Client: EnviroKleen

Date: 15-Nov-16

Work Order: 1611017

Date Received: 03-Nov-16

Project Name: DO 601, 602, 604 White Sands Missile Range

Collection Date: 02-Nov-16

Preparation Date: 10-Nov-16

Matrix: SOIL

Lab ID: 1611017-05A

Analyst: SS

Client Sample ID: 602 20160507

VOLATILES, TCLP**SW1311/8260B**

Analyte	Reporting		Units	Date Analyzed
	Result	DF		
1,1-Dichloroethene	< 25	5	ug/L	10-Nov-16
1,2-Dichloroethane	< 25	5	ug/L	10-Nov-16
1,4-Dichlorobenzene	< 25	5	ug/L	10-Nov-16
2-Butanone	< 50	5	ug/L	10-Nov-16
Benzene	< 25	5	ug/L	10-Nov-16
Carbon tetrachloride	< 25	5	ug/L	10-Nov-16
Chlorobenzene	< 25	5	ug/L	10-Nov-16
Chloroform	< 25	5	ug/L	10-Nov-16
Tetrachloroethene	41.1	5	ug/L	10-Nov-16
Trichloroethene	< 25	5	ug/L	10-Nov-16
Vinyl chloride	< 10	5	ug/L	10-Nov-16

Analyte	Surrogate Recoveries		Control Limits
	Recovery		
1,2-Dichloroethane-d4	81%		57-101
4-Bromofluorobenzene	112%		60-100
Dibromofluoromethane	87%		62-100
Toluene-d8	120%		53-172

For Surrogates: 0 = Dil. Out

Approved by: *lyredly***Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certified San Antonio: T104704307-16-5

H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 2/28/2018		Name of HWMC Receiving Person	
Container No.(s): 2018-0130 2018-0131 2018-0132		Waste Profile [X] Awaiting Analysis []	Waste Profile Number: MT 18 029 07
Accumulation Start Date: 12-6-2017		MSDS []	
Description/Nomenclature:	Liquid []	Solid [X]	Aerosol []
Sludge from GTO Washrack Sump CD 4677-4679			
Type/Size of Container (DOT Code): 1A2	Gross Weight (Lbs.):		
DM [X] Size: 55 Gal. Open Top Metal	CD 4677		384 Lbs
DF [] Size: 55 gal. Close Top	CD 4678		478 Lbs
Other [] (state type & size):	CD 4679		21324 Lbs
Container Received is Acceptable: Yes [X] No []	Container Supplied by HWMC: Yes [] No [X]	Other [] (provide explanation in comments section below):	
Organization/Contractor/Project MT / Wash rack / Bldg. 2780 / Wash rack maintenance			
Point of Contact: Larry Garcia	Signature: <i>Larry Garcia</i>	Telephone: 1-575-678-3198	
Accumulation/Storage Location:			
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []
1893 (5) []	90 Day Yard Other []		
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []
S22895# S-20		22895 PAD []	
Container Moved To: On (Date):		Other:	
Time Req'd to Process Waste: Hrs: Min:		Container Cost:	
CLIN ID: TX0704		Type:	Qty:
Cost Per Lb. \$190.55		Type:	Qty:
Total: \$571.65			
1348 No.: 0536002			
Disposal Cost: \$571.65		Customer APC/JONO:	
Delivery Order No: 2819		Line Item No.: 64	
Manifest No.:			
Comments:			

Waste Turn-In Sheet

HWMC, Building 1870, WSMR, NM 88002, (575) 678-4641

Jan 2015

DPWE-EC

HAZARDOUS WASTE PROFILE SHEET

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Materiel Test Directorate
SMR/GTO
Bldg. Number: 2780
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

MT 18 029 07
Replaces: MT 17 066 01
Contact: Allen Tyree
Phone: 575-678-4773

1. Name of Waste: Sludge from GTO Washrack Sump
2. Clin: TX07
3. Generating Process: Wash Rack Maintenance
4. Projected Volume: 110 gallon (900 lb) Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

•Physical Characteristics•

Physical State: ☐ Solid ☐ Liquid ☐ Semi-Solid
☐ Gas ☐ Other
 Treatment Group: ☐ Waste ☐ Non-Waste
☐ Non-RCRA Waste (no other waste codes apply)
☐ Ignitable (D001) Flash Point:
☐ High TOC (>= 10%) ☐ Low TOC (<10%)
☐ Corrosive (D002) pH:
☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

•Chemical/Material Composition•

Component	Concentration/Range
Acetone	7.7 mg/L
Acetone	0.12 mg/L
Acetone	0.029 mg/L
Acetone	0.110 mg/L
Acetic acid	0.190 mg/L
Diethylhexyl phthalate	0.031 mg/L
N-Nitrosodimethylamine	0.012 mg/L
Barium	0.605 - 1.4 mg/L
Calcium	0.036 mg/L
Chromium	0.022 mg/L
Lead	0.130 mg/L
Selenium	0.016 mg/L
3,4-Methylphenol	0.39 mg/L

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No
 Shipping Name: Hazardous Waste, solid n.o.s. (acetone)
 Waste Codes: F003
 Hazard Class: 9 UN or NA No.: NA3077 PG: III
 CERCLA Reportable Qty (RQ):
 2008 Emergency Response Guidebook EM Resp No.: 171

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS (attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached TestAmerica Lab analysis # 490-119728-1, 560-65946-1, and Xenco Lab analysis # 572924-002.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Date
 29-Jan-18



Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM

WSMR

Sample ID: MT2780-1801081115-CD4677-4679

Matrix: Sludge

Date Received: 01/09/18 16:37

Lab Sample ID: 572924-002

Date Collected: 01/08/18 11:15

Metric: Sludge

Date Collected: 01/08/18 11:15

Date Received: 01/09/18 16:37

Analytical Method: TCLP Mercury by SW 7470A

Prep Method: SW7470P

Prep Method: SW3510C

Tech: SOK

% Moisture

% Moisture

Analyst: EKL

Date Prep: 01/11/18 11:30

Date Prep: 01/12/18 11:22

SUB TX104704215-17-23

Seq Number: 3038069

SUB TX104704215-17-23

Parameter: Mercury

Con Number: 1115-974

Result: 0.000300

RL: 0.000300

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000300

Analytical Method: TCLP Metals by SW 1311(40)DB

Prep Method: SW7470P

Prep Method: SW3510C

Tech: SOK

% Moisture

% Moisture

Analyst: EKL

Date Prep: 01/12/18 08:10

Date Prep: 01/12/18 11:22

SUB TX104704215-17-23

Seq Number: 3038113

SUB TX104704215-17-23

Parameter: Cadmium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Lead

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Copper

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Zinc

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Nickel

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Manganese

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Chromium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Barium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Strontium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Selenium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Vanadium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Molybdenum

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Cobalt

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Silver

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Antimony

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Tellurium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Bismuth

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Thallium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Arsenic

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Boron

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Fluorine

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Chlorine

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Nitrogen

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Phosphorus

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Sulfur

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Carbon

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Hydrogen

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Oxygen

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Silicon

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Calcium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Magnesium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Potassium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Sodium

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Chloride

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U

DL: 0.000000

Parameter: Sulfate

Con Number: 1115-974

Result: 0.000000

RL: 0.000000

Units: mg/L

Analysis Date: 01/11/18 11:30

Flag: U</

Flash Point

Client: General Services Administration Job Number: 490-119728-1

Client Sample ID: 8104 MT2780 170109 0922
 Lab Sample ID: 490-119728-1
 Client Matrix: Water

Analysis Method: 8015B Analysis Batch: 490-400308 Instrument ID: HP46
 Prep Method: 50308 Initial Weight/Volume: 1.0 g
 Dilution: 1.0 Final Weight/Volume: 10.0 mL
 Analysis Date: 01/12/2017 2026 Injection Volume: 5 mL
 Prep Date: 01/12/2017 2026 Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
DRO (C5-C10)	91	J	50	100
Surrogate	%Rec	Qualifier	Acceptance Limits	
n,p,p'-Trichlorobenzene	100		50 - 150	

TestAmerica Nashville

Page 8 of 27

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: 8104 MT2780 170109 0922
 Lab Sample ID: 490-119728-2
 Client Matrix: Waste

Date Sampled: 01/09/2017 0922
 Date Received: 01/10/2017 0915

Analysis Method: 8015B Analysis Batch: 490-400581 Instrument ID: HP46
 Prep Method: 50308 Prep Batch: 490-400309 Initial Weight/Volume: 1.09 g
 Dilution: 1.0 Final Weight/Volume: 10.0 mL
 Analysis Date: 01/12/2017 1806 Injection Volume: 5 mL
 Prep Date: 01/11/2017 1132 Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
DRO (C5-C10)		23	U	23	46
Surrogate	%Rec	Qualifier	Acceptance Limits		
n,p,p'-Trichlorobenzene	71		50 - 150		

TestAmerica Nashville

Page 9 of 27

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: 8104 MT2780 170109 0922
 Lab Sample ID: 490-119728-1
 Client Matrix: Water

Date Sampled: 01/09/2017 0922
 Date Received: 01/10/2017 0915

Analysis Method: 8015B Analysis Batch: 490-400254 Instrument ID: HP47
 Prep Method: 3510C Prep Batch: 490-400262 Initial Weight/Volume: 230 mL
 Dilution: 3.0 Final Weight/Volume: 1 mL
 Analysis Date: 01/11/2017 1339 Injection Volume: 8 uL
 Prep Date: 01/11/2017 0915 Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
DRO (C10-C28)	7700		300	330
Surrogate	%Rec	Qualifier	Acceptance Limits	
p-Terphenyl (Sun)	53		50 - 150	

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: 8104 MT2780 170109 0945
 Lab Sample ID: 490-119728-4
 Client Matrix: Solid

Date Sampled: 01/09/2017 0945
 Date Received: 01/10/2017 0915

Analysis Method: 8015B Analysis Batch: 490-401250 Instrument ID: HP44
 Prep Method: 3550C Prep Batch: 490-401329 Initial Weight/Volume: 25.45 g
 Dilution: 25 Final Weight/Volume: 1.00 mL
 Analysis Date: 01/16/2017 1837 Injection Volume: 1 uL
 Prep Date: 01/16/2017 1135 Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
DRO (C10-C28)		680		61	120
Surrogate	%Rec	Qualifier	Acceptance Limits		
p-Terphenyl (Sun)	0	X	50 - 150		

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EXECUTIVE SUMMARY - Detections

Client: General Services Administration

Job Number: 560-65946-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
560-65946-3	8104 MT2780 170109 0922					Analytical Data
2-Butanone (MEK)		47	J	50	ug/L	8260B
4-Methyl-2-pentanone (MIBK)		28	J	50	ug/L	8260B
Acetone		120	J	50	ug/L	8260B
Carbon disulfide		20	J	25	ug/L	8260B
Chlorobenzene		2.4	J	5.0	ug/L	8260B
Chloroform		29	J	5.0	ug/L	8260B
Chloromethane		110	J	25	ug/L	8260B
1-Methylnaphthalene		0.82	J	10	ug/L	8270C
3,4-Methylphenol		2.3	J	20	ug/L	8270C
Benzoic acid		190	J	50	ug/L	8270C
Bis(2-ethylhexyl) phthalate		31	J	20	ug/L	8270C
Di-n-butyl phthalate		3.9	J	10	ug/L	8270C
N-Hydroxymethylamine		12	J	10	ug/L	8270C
Phenanthrene		0.89	J	10	ug/L	8270C
Phenol		6.7	J	10	ug/L	8270C
Pyrene		0.50	J	10	ug/L	8270C
Barium		810	J	10	ug/L	6010B
Cadmium		36	J	5.0	ug/L	6010B
Chromium		22	J	10	ug/L	6010B
Lead		130	J	10	ug/L	6010B
Selenium		8.4	J	10	ug/L	6010B

560-65946-3	8104 MT2780 170109 0945					
TCCLP						
4-Methyl-2-pentanone (MIBK)		0.022	J	0.025	mg/L	8260B
Acetone		0.057	J	0.25	mg/L	8260B
3 & 4 Methylphenol		0.39	J	0.20	mg/L	8270C
Benzoic acid		0.14	J	0.50	mg/L	8270C
Bis(2-ethylhexyl) phthalate		0.056	J	0.20	mg/L	8270C
Diethyl phthalate		0.0078	J	0.10	mg/L	8270C
Di-n-butyl phthalate		0.0074	J	0.10	mg/L	8270C
Phenol		0.012	J	0.10	mg/L	8270C
Arsenic		0.0069	J	0.010	mg/L	6010B
Barium		1.4	J	0.010	mg/L	6010B
Cadmium		0.0027	J	0.0050	mg/L	6010B
Selenium		0.016	J	0.010	mg/L	6010B

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0922-TB

Lab Sample ID: 560-65946-1TB

Date Sampled: 01/09/2017 0822

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: 01121718.D	VGCM5#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121718.D	
Dilution: 1.0		Initial Weight/Volume: 5 mL	
Analysis Date: 01/12/2017 1457		Final Weight/Volume: 5 mL	
Prep Date: 01/12/2017 1457			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.30	U	0.30	1.0
1,1,2,2-Tetrachloroethane	0.19	U	0.19	1.0
1,1,2-Trichloroethane	0.17	U	0.17	1.0
1,1-Dichloroethane	0.17	U	0.17	1.0
1,1-Dichloroethane	0.30	U	0.30	1.0
1,1-Dichloropropane	0.19	U	0.19	1.0
1,2,3-Trichlorobenzene	0.22	U	0.22	5.0
1,2,3-Trichloropropane	0.19	U	0.19	1.0
1,2,4-Trichlorobenzene	0.17	U	0.17	5.0
1,2,4-Trichlorobenzene	0.20	U	0.20	2.0
1,2-Dibromo-3-Chloropropane	0.35	U	0.35	5.0
1,3-Dichlorobenzene	0.17	U	0.17	1.0
1,3-Dichloropropane	0.17	U	0.17	1.0
1,2-Dichloroethane, Total	0.20	U	0.20	2.0
1,2-Dichloropropane	0.17	U	0.17	1.0
1,3,5-Trimethylbenzene	0.20	U	0.20	2.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.20	U	0.20	1.0
2,3-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.0	U	1.0	10
2-Chlorotoluene	0.16	U	0.16	1.0
2-Hexanone	1.6	U	1.6	10
4-Chlorotoluene	0.24	U	0.24	1.0
4-Isopropyltoluene	0.15	U	0.15	1.0
4-Methyl-2-pentanone (MIBK)	0.51	U	0.51	10
Acetone	5.0	U	5.0	10
Benzene	0.33	U	0.33	1.0
Bromobenzene	0.13	U	0.13	1.0
Bromochloromethane	0.23	U	0.23	1.0
Bromodichloromethane	0.18	U	0.18	1.0
Bromolorm	0.50	U	0.50	5.0
Bromomethane	0.39	U	0.39	5.0
Carbon disulfide	0.50	U	0.50	5.0
Carbon tetrachloride	0.25	U	0.25	1.0
Chlorobenzene	0.14	U	0.14	1.0
Chloroethane	0.40	U	0.40	1.0
Chloroform	0.17	U	0.17	1.0
Chloromethane	0.39	U	0.39	5.0
cis-1,2-Dichloroethane	0.12	U	0.12	1.0
cis-1,3-Dichloropropane	0.15	U	0.15	1.0
Dibromochloromethane	0.22	U	0.22	2.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.43	U	0.43	5.0
Ethylbenzene	0.20	U	0.20	1.0

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0922-TB

Lab Sample ID: 560-65946-1TB

Date Sampled: 01/09/2017 0822

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: 01121718.D	VGCM5#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121718.D	
Dilution: 1.0		Initial Weight/Volume: 5 mL	
Analysis Date: 01/12/2017 1457		Final Weight/Volume: 5 mL	
Prep Date: 01/12/2017 1457			

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.86	U	0.86	5.0
Isopropylbenzene	0.20	U	0.20	5.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Methylene Chloride	2.0	U	2.0	10
m-Xylene & p-Xylene	0.26	U	0.26	2.0
Naphthalene	0.20	U	0.20	5.0
n-Butylbenzene	0.20	U	0.20	2.0
n-Propylbenzene	0.11	U	0.11	1.0
o-Xylene	0.20	U	0.20	1.0
sec-Butylbenzene	0.30	U	0.30	2.0
Styrene	0.20	U	0.20	1.0
tert-Butylbenzene	0.20	U	0.20	2.0
Tetrachloroethane	0.19	U	0.19	1.0
Toluene	0.50	U	0.50	1.0
trans-1,2-Dichloroethane	0.20	U	0.20	1.0
trans-1,3-Dichloropropane	0.20	U	0.20	5.0
Trichloroethane	0.32	U	0.32	1.0
Trichlorofluoromethane	0.24	U	0.24	1.0
Vinyl chloride	0.30	U	0.30	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Sur)	98	U	70 - 140
4-Bromofluorobenzene (Sur)	97	U	70 - 130
Dibromofluoromethane (Sur)	101	U	60 - 130
Toluene-d8 (Sur)	98	U	70 - 130

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Date Sampled: 01/09/2017 0822

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: 01121718.D	VGCM5#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121718.D	
Dilution: 5.0		Initial Weight/Volume: 5 mL	
Analysis Date: 01/12/2017 1521		Final Weight/Volume: 5 mL	
Prep Date: 01/12/2017 1521			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	1.0	5.0
1,1,1-Trichloroethane	1.5	U	1.5	5.0
1,1,2,2-Tetrachloroethane	0.95	U	0.95	5.0
1,1,2-Trichloroethane	0.87	U	0.87	5.0
1,1-Dichloroethane	0.84	U	0.84	5.0
1,1-Dichloroethane	1.5	U	1.5	5.0
1,1-Dichloropropane	0.93	U	0.93	5.0
1,2,3-Trichlorobenzene	1.1	U	1.1	25
1,2,3-Trichloropropane	0.96	U	0.96	5.0
1,2,4-Trichlorobenzene	0.84	U	0.84	25
1,2,4-Trichlorobenzene	1.0	U	1.0	10
1,2-Dibromo-3-Chloropropane	1.7	U	1.7	25
1,2-Dichlorobenzene	0.85	U	0.85	5.0
1,2-Dichloroethane	0.86	U	0.86	5.0
1,2-Dichloroethane, Total	1.0	U	1.0	10
1,2-Dichloropropane	0.87	U	0.87	5.0
1,3,5-Trimethylbenzene	1.0	U	1.0	10
1,3-Dichlorobenzene	0.64	U	0.64	5.0
1,3-Dichloropropane	0.73	U	0.73	5.0
1,4-Dichlorobenzene	1.0	U	1.0	5.0
2,3-Dichloropropane	1.7	U	1.7	5.0
2-Butanone (MEK)	47	J	5.0	50
2-Chlorotoluene	0.78	U	0.78	5.0
2-Hexanone	7.8	U	7.8	50
4-Chlorotoluene	1.2	U	1.2	5.0
4-Isopropyltoluene	0.75	U	0.75	5.0
4-Methyl-2-pentanone (MIBK)	26	J	2.5	50
Acetone	120	U	25	50
Benzene	1.7	U	1.7	5.0
Bromobenzene	0.84	U	0.84	5.0
Bromochloromethane	1.1	U	1.1	5.0
Bromodichloromethane	0.88	U	0.88	5.0
Bromolorm	2.5	U	2.5	25
Bromomethane	2.0	U	2.0	25
Carbon disulfide	20	J	2.5	25
Carbon tetrachloride	1.3	U	1.3	5.0
Chlorobenzene	2.4	J	0.88	5.0
Chloroethane	2.0	U	2.0	25
Chloroform	29	U	0.87	5.0
Chloromethane	110	U	2.0	25
cis-1,2-Dichloroethane	0.81	U	0.81	5.0
cis-1,3-Dichloropropane	0.73	U	0.73	5.0
Dibromochloromethane	1.1	U	1.1	5.0
Dibromomethane	0.83	U	0.83	5.0
Dichlorodifluoromethane	2.1	U	2.1	25
Ethylbenzene	1.0	U	1.0	5.0

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Client Matrix: Water

Date Sampled: 01/09/2017 0922
Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method	8260B	Analysis Batch	560-135564	Instrument ID	VGCM5#1
Prep Method	5030B	Prep Batch	N/A	Lab File ID	0121717.D
Dilution	5.0			Initial Weight/Volume	5 mL
Analysis Date	01/12/2017 1521			Final Weight/Volume	5 mL
Prep Date	01/12/2017 1521				
Leach Date	01/19/2017 1700				
Analysis	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide		0.88	U	0.88	5.0
Hexachlorobutadiene		4.3	U	4.3	25
Isopropylbenzene		1.0	U	1.0	25
Methyl tert-butyl ether		1.0	U	1.0	5.0
Methylene Chloride		10	U	10	50
m-Xylene & p-Xylene		1.3	U	1.3	10
Naphthalene		1.0	U	1.0	25
n-Butylbenzene		1.0	U	1.0	10
n-Propylbenzene		0.53	U	0.53	5.0
o-Xylene		1.0	U	1.0	5.0
sec-Butylbenzene		1.0	U	1.0	10
Styrene		1.0	U	1.0	5.0
tert-Butylbenzene		1.0	U	1.0	10
Tetrachloroethane		0.95	U	0.95	5.0
Toluene		2.5	U	2.5	5.0
trans-1,2-Dichloroethane		1.0	U	1.0	5.0
trans-1,3-Dichloropropene		1.0	U	1.0	25
Trichloroethane		1.6	U	1.6	5.0
Trichlorofluoromethane		1.2	U	1.2	5.0
Vinyl chloride		1.5	U	1.5	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Sur)	101		70 - 140
4-Bromobenzonitrile (Sur)	92		70 - 130
Dibromofluoromethane (Sur)	108		68 - 130
Toluene-d8 (Sur)	100		70 - 130

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Client Matrix: Water

Date Sampled: 01/09/2017 0945
Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method	8260B	Analysis Batch	560-135544	Instrument ID	VGCM5#2
Prep Method	5030B	Prep Batch	N/A	Lab File ID	01201718.D
Dilution	5.0			Initial Weight/Volume	5 mL
Analysis Date	01/20/2017 1624			Final Weight/Volume	5 mL
Prep Date	01/20/2017 1624				
Leach Date	01/19/2017 1700				

Analysis	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		0.0010	U	0.0010	0.025
1,1,1-Trichloroethane		0.0015	U	0.0015	0.025
1,1,2-Trichloroethane		0.00065	U	0.00065	0.025
1,1,2-Trichloroethane		0.00087	U	0.00087	0.025
1,1,2-Trichloroethane		0.00084	U	0.00084	0.025
1,1-Dichloroethane		0.0015	U	0.0015	0.025
1,1-Dichloropropene		0.00093	U	0.00093	0.025
1,2,3-Trichlorobenzene		0.0011	U	0.0011	0.13
1,2,3-Trichloropropene		0.00086	U	0.00086	0.025
1,2,4-Trichlorobenzene		0.00084	U	0.00084	0.13
1,2,4-Trimethylbenzene		0.0010	U	0.0010	0.025
1,2-Dibromo-3-Chloropropane		0.0017	U	0.0017	0.025
1,2-Dichlorobenzene		0.00059	U	0.00059	0.025
1,2-Dichloroethane		0.00090	U	0.00090	0.025
1,2-Dichloroethane, Total		0.0010	U	0.0010	0.025
1,2-Dichloropropene		0.00087	U	0.00087	0.025
1,3,5-Trimethylbenzene		0.0010	U	0.0010	0.025
1,3-Dichlorobenzene		0.00064	U	0.00064	0.025
1,3-Dichloropropene		0.00073	U	0.00073	0.025
1,4-Dichlorobenzene		0.0010	U	0.0010	0.025
2,2-Dichloropropene		0.0017	U	0.0017	0.025
2-Butanol (MEK)		0.00050	U	0.00050	0.10
2-Chlorotoluene		0.00078	U	0.00078	0.025
2-Hexanone		0.0010	U	0.0010	0.025
4-Chlorotoluene		0.0012	U	0.0012	0.025
4-Isopropyltoluene		0.00075	U	0.00075	0.025
4-Methyl-2-pentanone (MIBK)		0.0022	J	0.0022	0.25
Acetone		0.0017	U	0.0017	0.050
Benzene		0.00064	U	0.00064	0.025
Bromobenzene		0.0011	U	0.0011	0.025
Bromochloromethane		0.00088	U	0.00088	0.025
Bromodichloromethane		0.00025	U	0.00025	0.13
Bromomethane		0.00020	U	0.00020	0.025
Carbon disulfide		0.00025	U	0.00025	0.025
Carbon tetrachloride		0.0013	U	0.0013	0.025
Chlorobenzene		0.00058	U	0.00058	0.025
Chloroethane		0.0020	U	0.0020	0.025
Chloroform		0.0010	U	0.0010	0.025
Chloromethane		0.00020	U	0.00020	0.025
cis-1,2-Dichloroethane		0.00061	U	0.00061	0.025
cis-1,3-Dichloropropene		0.00073	U	0.00073	0.025
Dibromochloromethane		0.0011	U	0.0011	0.025
Dibromomethane		0.00083	U	0.00083	0.025
Dichlorofluoromethane		0.0021	U	0.0021	0.025

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Client Matrix: Water

Date Sampled: 01/09/2017 0945
Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method	8260B	Analysis Batch	560-135544	Instrument ID	VGCM5#2
Prep Method	5030B	Prep Batch	N/A	Lab File ID	01201718.D
Dilution	5.0			Initial Weight/Volume	5 mL
Analysis Date	01/20/2017 1624			Final Weight/Volume	5 mL
Prep Date	01/20/2017 1624				
Leach Date	01/19/2017 1700				
Analysis	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Ethylbenzene		0.0010	U	0.0010	0.025
Ethylene Dibromide		0.00075	U	0.00075	0.025
Hexachlorobutadiene		0.0043	U	0.0043	0.13
Isopropylbenzene		0.0010	U	0.0010	0.025
Methyl tert-butyl ether		0.0010	U	0.0010	0.025
Methylene Chloride		0.010	U	0.010	0.25
m-Xylene & p-Xylene		0.0013	U	0.0013	0.050
Naphthalene		0.0010	U	0.0010	0.13
n-Butylbenzene		0.0010	U	0.0010	0.025
n-Propylbenzene		0.00053	U	0.00053	0.025
o-Xylene		0.0010	U	0.0010	0.025
sec-Butylbenzene		0.0015	U	0.0015	0.025
Styrene		0.0010	U	0.0010	0.13
tert-Butylbenzene		0.0010	U	0.0010	0.025
Tetrachloroethane		0.00095	U	0.00095	0.025
Toluene		0.0015	U	0.0015	0.025
trans-1,2-Dichloroethane		0.0010	U	0.0010	0.025
trans-1,3-Dichloropropene		0.0010	U	0.0010	0.025
Trichloroethane		0.0016	U	0.0016	0.025
Trichlorofluoromethane		0.0012	U	0.0012	0.025
Vinyl chloride		0.0015	U	0.0015	0.025

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Sur)	107		70 - 130
4-Bromobenzonitrile (Sur)	98		70 - 130
Dibromofluoromethane (Sur)	98		70 - 130
Toluene-d8 (Sur)	101		70 - 130

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Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: 8104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Client Matrix: Water

Date Sampled: 01/09/2017 0922
Date Received: 01/11/2017 1240

8280C Semivolatile Organic Compounds (GC/MS)

Analysis Method	8280C	Analysis Batch	560-135535	Instrument ID	SVGCM5#2
Prep Method	3520C	Prep Batch	560-135581	Lab File ID	01161710.D
Dilution	1.0			Initial Weight/Volume	250 mL
Analysis Date	01/16/2017 1119			Final Weight/Volume	1 mL
Prep Date	01/12/2017 1015			Injection Volume	1 uL

Analysis	Result (ug/L)	Qualifier	MDL	RL
1,2,4,5-Tetrachlorobenzene	0.68	U	0.68	10
1,2,4-Trichlorobenzene	0.65	U	0.65	10
1,2-Dichlorobenzene	0.78	U	0.78	10
1,2-Diphenylhydrazine (as Azobenzene)	0.79	U	0.79	10
1,3-Dichlorobenzene	0.49	U	0.49	10
1,4-Dichlorobenzene	0.82	U	0.82	10
1-Methylnaphthalene	0.82	J	0.82	10
2,2'-methylenebis(4-chlorophenol)	0.50	U	0.50	10
2,4,5-Trichlorophenol	0.86	U	0.86	10
2,4,6-Trichlorophenol	0.56	U	0.56	10
2,4-Dichlorophenol	0.70	U	0.70	10
2,4-Dimethylphenol	0.59	U	0.59	10
2,4-Dinitrophenol	2.7	U	2.7	20
2,4-Dinitrotoluene	0.51	U	0.51	20
2,6-Dichlorophenol	0.65	U	0.65	10
2,6-Dinitrotoluene	0.76	U	0.76	10
2-Chloronaphthalene	0.60	U	0.60	10
2-Chlorophenol	0.73	U	0.73	10
2-Methylnaphthalene	0.70	U	0.70	10
3-Methylphenol	0.61	U	0.61	10
3 & 4 Methylphenol	2.3	J	0.76	20
3,3'-Dichlorobenzidine	0.79	U	0.79	10
3-Nitroanisole	0.51	U	0.51	10
4,6-Dinitro-2-methylphenol	0.96	U	0.96	10
4-Chloroanisole	0.55	U	0.55	10
4-Chlorophenyl phenyl ether	0.53	U	0.53	10
4-Nitroanisole	0.82	U	0.82	10
4-Nitrophenol	1.7	U	1.7	10
Acenaphthene	0.46	U	0.46	10
Acenaphthylene	0.45	U	0.45	10
Anthracene	0.70	U	0.70	10
Benzidine	0.39	U	0.39	50
Benzofluoranthene	0.65	U	0.65	10
Benzofluorene	0.74	U	0.74	10
Benzofluoranthene	0.91	U	0.91	10
Benzofluoranthene	1.1	U	1.1	10
Benzofluoranthene	1.5	U	1.5	10
Benzofluoranthene	1.90	U	0.83	50
Benzofluoranthene	0.83	U	0.83	10
Bis(2-chloroethoxy)methane	0.44	U	0.44	10
Bis(2-chloroethoxy)methane	1.5	U	1.5	10
Bis(2-ethylhexyl)phthalate	31	U	5.0	20
Benzyl benzoate	0.82	U	0.82	10
Carbazole	0.60	U	0.60	10
Chrysene	0.48	U	0.48	10
Dibenz(a,h)anthracene	0.87	U	0.87	10

TestAmerica Corpus Christi

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Analytical Data
 Client: General Services Administration
 Job Number: 560-65948-1
 Client Sample ID: 8104 MT2780 170188 0845
 Lab Sample ID: 560-65948-3
 Date Sampled: 01/08/2017 0845
 Client Name: Waste
 Date Received: 01/11/2017 1240

60108 Metals (PCP)-TCLP
 Analysis Method: 60108
 Prep Method: 3010A
 Dilution: 1.0
 Analysis Date: 01/12/2017 1312
 Prep Date: 01/12/2017 0930
 Leach Date: 01/11/2017 1600
 Analysis Batch: 560-135563
 Prep Batch: 560-135576
 Leach Batch: 560-135549
 Instrument ID: MT66500
 Lab File ID: 170112a-fired.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	DryWt Corrected N	Result (mg/L)	Qualifier	MDL	RL
Aluminum		0.0089	J	0.0035	0.010
Barium		1.4		0.0020	0.010
Bismuth		0.0027	J	0.00034	0.0050
Chromium		0.0011	U	0.0011	0.010
Copper		0.0033	U	0.0033	0.010
Lead		0.0018		0.0042	0.010
Silver		0.0010	U	0.0010	0.0050

7470A Mercury (CVAA)-TCLP
 Analysis Method: 7470A
 Prep Method: 7470A
 Dilution: 1.0
 Analysis Date: 01/12/2017 1558
 Prep Date: 01/12/2017 1100
 Leach Date: 01/11/2017 1600
 Analysis Batch: 560-135560
 Prep Batch: 560-135591
 Leach Batch: 560-135549
 Instrument ID: Mhg1
 Lab File ID: 170112W.PRN
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	DryWt Corrected N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.00013	U	0.00013	0.0020

H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 02/13/18		Name of HWMC Receiving Person: Harrison Hernandez			
Section A: Container Information					
Container No.(s): 2018-0092		Waste Profile ☒ Awaiting Analysis []		Waste Profile Number: TMDE 1713702	
Accumulation Start Date: 02/13/18		MSDS []			
Description/Nomenclature: Instapak B		Liquid ☒	Solid []	Aerosol []	Cylinder []
Type/Size of Container (DOT Code):		Gross Weight (Lbs): 28 lbs			
DM [] Size:					
DF ☒ Size: 14 Gallon					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []		Container Supplied by HWMC: Yes [] No ☒		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project: TMDE 1528					
Point of Contact: Arturo Hernandez		Signature: [Signature]		Telephone: 575-678-3224	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906(D) []	S22895#	22895 PAD []
Container Moved To: On (Date):				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs:	Min:	Container Cost:	
CLIN ID: NR05C7		Cost Per Lb: \$ 33.89		Type:	Qty: \$
Total: \$ 33.89				Type:	Qty: \$
1348 No.: 05-0466008					
Disposal Cost: \$ 33.89		Customer APC/JONO:			
Delivery Order No:		Line Item No.:		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Test Measurement and Diagnostic E
 Calibration Lab
 Bldg. Number: 1528
 SAP ID: N/A
 DODAAC: WM0M58

•Waste Profile•

TMDE 17 137 02

Replaces: TMDE 16 068 02
 Contact: George Vargas
 Phone: 575-678-4550

1. Name of Waste: Instapak Component "B"
2. Clin: 9902
3. Generating Process: Material to Waste
4. Projected Volume: 100 lbs. Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

•RCRA Characteristics•

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater
☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point:
☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
Amine Catalyst	3% (approximate)
Glycerin (mist)	7%

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached MSDS for Sealed Air Instapak -40W Component "B" (April 2011).

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Date
 17-May-17

MATERIAL SAFETY DATA SHEET

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EMERGENCY NUMBERS:

Sealed Air Corporation: (203) 791-3500 For emergency and general information

8:30am-5:00pm, (Eastern Time), Monday-Friday

CHEMTREC: (800) 424-9300 For Chemical Emergency - spill, leak, fire, exposure or accident
24 hours

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: INSTAPAK® 40W COMPONENT "B"
Chemical Name: Polyol
Product Description: Polyether Polyol Resin Mixture
Manufacturer: Sealed Air Corporation (US)
10 Old Sherman Turnpike
Danbury, CT 06810

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Health Hazards: Irritating to eyes and skin. Inhalation may result in irritation.

Physical Hazards: No immediate hazard.

Medical Conditions Aggravated by Exposure: None known.

Appearance: Liquid can be a straw to amber color and have a clear to cloudy appearance. A slight amine odor may be present.

Note: Read the entire MSDS for a more thorough evaluation of the hazard information on this product.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS No.	Wt. %	OSHA-PEL	ACGIH-TLV
Amine Catalyst	Proprietary	≈ 3	Not Established	Not Established
Glycerin (mist)	56-81-5	7	15 mg/m3 (TWA) Total dust 5 mg/m3 (TWA) Respirable fraction	10 mg/m3 (TWA)

This product is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION 4 - FIRST AID MEASURES

Eye Contact: Flush with copious amounts of water for at least 15 minutes, holding lids open with fingers.

Skin Contact: Wash area thoroughly with soap and water. Launder contaminated clothing before reuse.

Inhalation: Remove patient from further exposure and obtain medical attention. Administer oxygen if necessary.

Ingestion: Drink water to dilute and obtain medical attention.

Note to Physicians: Symptomatic and supportive care as indicated.

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SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Product as supplied does not have a flash point. [Pensky-Martens Closed Cup]

Flammable limits (lower): Not applicable.

Flammable limits (upper): Not applicable.

Extinguishing Media: Carbon dioxide (CO₂), chemical foam, dry chemical, water spray.

Fire Fighting Procedures: Firefighters should wear NFPA compliant protective equipment including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse.

Fire and Explosion Hazards: Chemical containers may burst under intense heat or pressure.

Health	2
Flammability	1
Reactivity	0
Special Hazard	None

0=Minimal 1=Slight 2=Moderate 3=High 4=Extreme

NFPA Hazard Code:

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Evacuate area surrounding the spill and prevent further leakage, spillage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained. Contain and cover spill with loose absorbent (earth, sand, sawdust or other absorbent material) or absorbent pillows, pads or socks. Collect absorbed material in open containers or plastic bags. Dispose of spilled material properly.

SECTION 7 - HANDLING AND STORAGE

Storage Temperature: Min. 35°F (2°C) Max. 110°F (43°C)

Average Shelf Life: 12 months (when stored in original, unopened, sealed containers).

Special Sensitivity: None.

Precautions to be Taken in Handling and Storage: None.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: OSHA-PEL: Glycerin (mist) 15 mg/m3 (TWA) Total dust
5 mg/m3 (TWA) Respirable fraction
ACGIH-TLV: Glycerin (mist) 10 mg/m3 (TWA)

HMIS Hazard Code:

Health	2
Flammability	0
Reactivity	0
PPE	B

(Personal Protective Equipment) (B= safety glasses and gloves)

0=Minimal 1=Slight 2=Moderate 3=High 4=Severe

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SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

Respiratory Protection: The use of respiratory protection should not be needed under normal use and handling conditions. If protection is chosen, an air purifying respirator, equipped with organic vapor cartridges, is appropriate.

Eye Protection: Safety glasses with side shields or goggles.

Protective Clothing: Chemical resistant butyl rubber, nitrile rubber, neoprene, or other suitable protective gloves. Ventilation: Good general ventilation. For guidance on engineering controls refer to the ACGIH publication "Industrial Ventilation."

Other: Eyewash station and safety shower should be available. Refer to the "Recommendations for the Safe Use and Handling of Instapak® Foam-in-Place Chemicals" bulletin before handling Instapak® chemicals.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Light straw or amber
Odor: Slight amine or no odor
Vapor Density (Air = 1): > 1
Molecular Weight: Not applicable
Melting Point: 20°F (-7°C)
Boiling Point: >201°F (94°C)
Vapor Pressure: Not established (low)
Specific Gravity: 1.05 at 25°C
Bulk Density: 8.8 lbs/gal
% Volatile by Volume: Nil
Solubility in Water: Soluble

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable.
Polymerization: Will not occur.
Conditions to Avoid: None.
Incompatible Materials: Contact with isocyanates, unless mixed at the proper ratio, should not occur.
Hazardous Decomposition Products: By fire or extreme heat, oxides of carbon and nitrogen.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity Data:
LD₅₀ Oral: Not Established
LD₅₀ Dermal: Not Established
LC₅₀ Inhalation: Not Established
Primary Route(s) of Exposure: Skin contact from liquid. Inhalation. However, overexposure is not expected under normal conditions.

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SECTION 11 - TOXICOLOGICAL INFORMATION (continued)

Inhalation: Vapors may be irritating if hot.

Skin Contact: Repeated contact may be irritating.

Eye Contact: Can cause eye irritation. Permanent corneal injury is unlikely.

Ingestion: Ingestion is unlikely. Large quantities could cause irritation of mouth and stomach.

Chronic Effects: No applicable data.

Carcinogenicity: The ingredients of this product (>0.1%) are not classified as carcinogenic by ACGIH or IARC, nor regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Mutagenicity: No applicable data.

Reproductive Effects: No applicable data.

Teratogenicity and Fetotoxicity: No applicable data.

SECTION 12 - ECOLOGICAL INFORMATION

No applicable data for this section.

SECTION 13 - DISPOSAL CONSIDERATIONS

Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations. This material is not a hazardous waste under RCRA 40 CFR 261 when discarded in its purchased form. Also see the "Recommendations for the Safe Use and Handling of Instapak® Foam-in-Place Chemicals" bulletin for additional information concerning disposal of wastes and empty containers. Chemical waste, regardless of quantity, should never be poured into drains, sewers or waterways.

SECTION 14 - TRANSPORT INFORMATION

DOT: Not regulated.

IMO: Not regulated.

IATA/ICAO Class: Not regulated.

Reportable Quantity (RQ): Not applicable.

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Product Packaging
Department
Danbury, CT 06810
203-791-5000 Fax: 203-791-5018

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SECTION 15 - REGULATORY INFORMATION

TSCA Status: All ingredients are listed or are not required to be listed.

CERCLA Status: Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

SARA 302 Extremely Hazardous Substances: None.

SARA 311/112 Hazard Categories: Immediate (acute) Health Hazard.

SARA 313 Listed Ingredient(s): None.

SECTION 16 - OTHER INFORMATION

Other Regulations/Legislation which apply to this product: Pennsylvania Right-to-Know (1.2.3.-Propanetriol, CAS No. 56-81-5). Substances used to manufacture this product do not require listing under Massachusetts and New Jersey Right-to-Know regulations.

To the best of our knowledge, this product does not contain any of the listed chemicals which the state of California has found to cause cancer, birth defects or other reproductive harm.

Section(s) Revised: Product Description revised in Section 1.

Printed using vegetable based inks.

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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 02/13/18		Name of HWMC Receiving Person: Harrison Hernandez			
Section A: Container Information					
Container No.(s): 2018-0093		Waste Profile ☒ Awaiting Analysis []		Waste Profile Number: TMDE 1713701	
Accumulation Start Date: 02/13/18		MSDS []			
Description/Nomenclature: Instapak Camp A		Liquid ☒ Solid [] Aerosol []		Cylinder [] Material to Waste []	
Type/Size of Container (DOT Code):				Gross Weight (Lbs):	
DM [] Size:				14 lbs	
DF ☒ Size: 14 Gal					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []		Container Supplied by HWMC: Yes [] No ☒		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project: TMDE 1528					
Point of Contact: ARTHUR HERNANDEZ		Signature: [Signature]		Telephone: 575-678-3224	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895#	22895 PAD []
Container Moved To: On (Date):				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs:	Min:	Container Cost:	
CLIN ID: NR01C2		Cost Per Lb: \$33.89		Type:	Qty: \$
Total: \$33.89				Type:	Qty: \$
1348 No.:		0406009			
Disposal Cost: \$33.89		Customer APC/JONO:			
Delivery Order No:		Line Item No.:		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Test Measurement and Diagnostic E
**** Calibration Lab
Bldg. Number: 1528
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

TMDE **17** **137** **01**

Replaces: TMDE 16 068 01

Contact: George Vargas

Phone: 575-678-4550

- | | | |
|----|---|--------------------------|
| 1. | Name of Waste: Instapak Component A | |
| 2. | Clin: 9902 | |
| 3. | Generating Process: Material to Waste | |
| 4. | Projected Volume: 25 lbs. | Mode of Collection: Drum |
| 5. | Comments: | |
| 6. | Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No | |
| 7. | Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No | |

●RCRA Characteristics●

Physical State:

☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:

☐ Wastewater ☐ Non-Wastewater☒ Non-RCRA Waste (no other waste codes apply)☐ Ignitable (D001) Flash Point: 390F☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003)	☐ Water Reactive
	☐ Cyanide Reactive
	☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:☐ P - Listed Waste:☐ U - Listed Waste:

●Chemical/Material Composition●

Component

Concentration/Range

Polymeric Diphenylmethane Diisocyanate

100%

●Shipping Information●

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
Non-Regulated

Waste Codes: Non-regulated

Hazard Class: UN or NA No.: PG:
CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached MSDS for Sealed Air Instapak Component A (January 2008).

●Generator Certification●

_____ hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Date **17-May-17**

MATERIAL SAFETY DATA SHEET

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EMERGENCY NUMBERS:

Sealed Air Corporation (US) (203) 791-3500 For emergency and general information
8:30am-5:00pm, (Eastern Time) Monday-Friday

CHEMTREC (800) 424-9300 For Chemical Emergency - spill, leak, fire, exposure or accident
24 hours

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: INSTAPAK® COMPONENT "A"
Chemical Name: Polymeric Diisocyanate
Trade Name: Polymeric MDI
Chemical Family: Aromatic Isocyanates
CAS No.: 9016-87-9

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Health Hazards: Irritating to skin, respiratory system and eyes. Repeated inhalation of aerosols at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to respiratory system. The onset of the respiratory symptoms may be immediate or delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. Sensitized persons should not be exposed to any mixture containing unreacted MDI. Respiratory sensitizer. Skin sensitizer.

Medical Conditions Aggravated by Exposure: Respiratory disorders, asthma, skin allergies and eczema

Physical Hazards: Closed containers may rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Appearance: Dark brown liquid with slightly aromatic or musty odor

Note: Read the entire MSDS for a more thorough evaluation of the hazard information on this product

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS No.	Wt %	OSHA-PEL	ACGIH-TLV
Polymeric Diisocyanate	9016-87-9	100	Not Listed	Not Listed
(polymeric MDI or PMDI)				
Contains				
4,4'-Diphenylmethane diisocyanate	101-68-8		0.02 ppm	0.005 ppm
(4,4'-MDI, approx. 45%)			(Ceiling)	(TWA)
Other MDI isomers and oligomers	Not Listed		Not Listed	Not Listed

This product is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200)

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SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with copious amounts of water for a minimum of 15 minutes, holding lids open with fingers. If irritation persists, repeat flushing. Refer individual to a physician for immediate follow-up.

Skin Contact: Remove contaminated clothing and or shoes. Immediately wash affected area thoroughly with soap and water. Some organic materials such as corn oil or propylene glycol can aid in the removal of PMDI from the skin when applied immediately. Contaminated clothing should be thoroughly cleaned before reuse. If irritation, redness, or a burning sensation develops and persists, obtain medical advice.

Inhalation: Remove patient from further exposure and obtain medical attention. Treatment is symptomatic for primary irritation or difficulty in breathing. If breathing is labored, qualified personnel should administer oxygen. Apply artificial respiration if breathing has ceased or shows signs of failing. Asthmatic-like symptoms, if manifested, may develop immediately, or be delayed for up to several hours.

Ingestion: Do NOT induce vomiting. Provided the patient is conscious, wash mouth out with water. Refer person to medical personnel for immediate attention.

Note to Physicians: Symptomatic and supportive therapy as indicated. Following severe exposure, medical follow-up should be monitored for at least 48 hours.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 390°F (199°C) [Pensky-Martens Closed Cup]

Flammable Limits (lower): Not available

Flammable Limits (upper): Not available

Extinguishing Media: Water, carbon dioxide (CO₂), dry chemical or appropriate foam. If water is used, large quantities are required. Reaction between water and hot isocyanate may be vigorous. Contain run-off water with temporary barriers.

Fire Fighting Procedures: Firefighters should wear NFPA compliant protective equipment including a self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with material. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate should be avoided.

Fire and Explosion Hazards: Containers with residual chemical may burst under intense heat or pressure. Due to reaction with water, a hazardous build-up of pressure could result if containers contaminated with moisture are sealed.

NFPA Hazard Code:

Health	2
Flammability	1
Reactivity	1
Special Hazard	None

0=Minimal 1=Slight 2=Moderate 3=High 4=Extreme

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Evacuate area surrounding the spill and prevent further spillage, leakage or entry into drains. Eye and skin protection should be worn during spill cleanup and ventilation maintained. If the potential for airborne concentrations of MDI above the PEL exists, then respiratory protection should be worn. Contain and cover spill with loose absorbent (earth, sand, sawdust or other absorbent material), or absorbent pillows, pads or socks. Collect absorbed material in open containers or plastic bags, and treat with deactivating solution (90% water, 8% concentrated ammonia, 2% detergent). Allow to stand uncovered for 48-72 hours to permit carbon dioxide to escape and solidification to occur. Wash spill area with deactivating solution and let stand for 30 minutes or longer. Dispose of absorbed and neutralized material properly.

SECTION 7 - HANDLING AND STORAGE

Storage Temperature: Min. 50°F (10°C) Max. 100°F (38°C)

Average Shelf Life: 12 months (when stored in original, unopened, sealed containers)

Special Sensitivity: Reacts with moisture to produce carbon dioxide gas

Precautions to be Taken in Handling and Storage: Do not store product containers uncovered outdoors. Do not re-seal containers unless it is certain that no moisture contamination has occurred. Do not breathe vapors or allow skin contact.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: OSHA-PEL: 4,4'-Diphenylmethane diisocyanate (MDI) 0.02 ppm (Ceiling)
ACGIH-TLV: 4,4'-Diphenylmethane diisocyanate (MDI) 0.005 ppm (TWA)

HMIS Hazard Code:

Health	2*
Flammability	1
Reactivity	1
PPE	B

(Personal Protective Equipment) (B= safety glasses and gloves)

0=Minimal 1=Slight 2=Moderate 3=High 4=Severe *Chronic health hazard

Exposure Guidelines: Medical supervision of employees who come into contact with respiratory sensitizers is recommended. Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted. Avoid inhalation of mists and vapors. Avoid skin contact.

Respiratory Protection: Due to the low vapor pressure of this material, the PEL is not likely to be exceeded under normal conditions. If the material is heated or spilled in a confined area, respiratory protection should be worn. An approved air purifying respirator equipped with an organic vapor cartridge and a HEPA (P100) particulate filter may be used when an appropriate cartridge change-out schedule has been developed in accordance with the OSHA respiratory protection standard (29 CFR 1910.134). Where concentrations exceed the level for which an air-purifying respirator is effective, use a positive pressure, supplied air respirator.

Eye Protection: Safety glasses with side shields or goggles

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Sealed Air Corporation (U.S.). The data on this sheet relates to the specific material designated herein. Sealed Air Corporation (U.S.) assumes no legal responsibility for use or reliance upon these data.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Dark brown

Odor: Slightly aromatic (musty)

Vapor Density (Air = 1): 8.5

Molecular Weight: Approx. 350

Melting Point: Not established

Boiling Point: 406°F (208°C)

Vapor Pressure: < 10⁻³ mm Hg at 25°C (for Polymeric MDI)

Specific Gravity: 1.24 at 25°C

Bulk Density: 10.3 lbs/gal

% Volatile by Volume: Nil

Solubility in Water: Not soluble. Reacts slowly to liberate CO₂ gas

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under normal conditions. Avoid temperatures above 110°F (43°C) or below 40°F (4°C).

Polymerization: May occur at elevated temperatures in the presence of moisture, alkalies, tertiary amines and metal compounds.

Conditions to Avoid: Contact with moisture and other materials that contain active hydrogen.

Incompatible Materials: Water, amines, strong bases, copper alloys and alcohols. The reaction with water is slow at temperatures less than 120°F (49°C) but is accelerated at higher temperatures.

Hazardous Decomposition Products: Highly unlikely under normal industrial use. Exposure to fire or extreme heat may generate oxides of carbon, oxides of nitrogen, and traces of hydrogen cyanide.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity Data:	LD₅₀ Oral	>2,000 mg/kg (rat) for polymeric MDI
	LD₅₀ Dermal	>10,000 mg/kg (rabbit) for monomeric MDI
	LC₅₀ Inhalation	>2,240 mg/m ³ /1 hour (rat) for an aerosol of monomeric MDI 370-490 mg/m ³ /4 hour (rat) for polymeric MDI

Primary Route(s) of Exposure: Skin contact from liquid. Inhalation. However, due to the low vapor pressure, overexposure is not expected under normal conditions unless material is heated or used in a poorly ventilated area.

Inhalation: This product is a respiratory irritant and respiratory sensitizer. Inhalation of vapor or aerosol at levels above the occupational exposure limit can cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat, and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of respiratory symptoms may be delayed for several hours after exposure.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Sealed Air Corporation (U.S.). The data on this sheet relates to the specific material designated herein. Sealed Air Corporation (U.S.) assumes no legal responsibility for use or reliance upon these data.

SECTION 11 - TOXICOLOGICAL INFORMATION (continued)

Hypersensitivity: A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons. Sensitized persons should be removed from any further exposure. Persons with asthma-type conditions or other chronic respiratory diseases should be excluded from working with MDI. Like many other non-specific asthmatic responses, there are reports that a sensitized individual can experience symptoms upon exposure to dust, cold air or other irritants. In a single evaluation of 5 men occupationally exposed to MDI and hydrocarbon solvent vapors under conditions where adequate ventilation or other safety precautions were not used, neuropsychologic findings were attributed to MDI.

Skin Contact: Skin irritant and sensitizer. May cause irritation or rash. Can cause skin discoloration. Repeated and/or prolonged contact may result in skin sensitization. Individuals who have skin sensitization can develop symptoms (e.g., reddening, swelling, rash) from contact with liquid or vapors. There is limited evidence from laboratory tests that skin contact may play a role in respiratory sensitization. This data reinforces the need to prevent direct skin contact and the importance of protective gloves.

Eye Contact: Liquid can cause eye irritation, tearing, reddening and swelling. Permanent corneal injury is unlikely. Exposure to MDI vapors in excess of 0.02 ppm may cause irritation.

Ingestion: Ingestion is unlikely. Based on the acute oral LD₅₀, this product is considered practically non-toxic by ingestion. Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract.

Chronic Effects: A study was conducted where groups of rats were exposed for 6 hours/day, 5 days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol either at concentrations of 0.02, 1, or 6 mg/m³. No adverse effects were observed at 0.02 mg/m³ concentrations. At the 1 mg/m³ concentration, minimal nasal and lung irritant effects were seen. Only at the highest concentration (6 mg/m³) was there an increased incidence of benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). MDI administration to rats in this study did not change the distribution and incidence of tumors from those seen in control animals. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

Carcinogenicity: The ingredients of this product (>0.1%) are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA and not listed as carcinogens by NTP.

Mutagenicity: There is no substantial evidence of mutagenic potential.

Reproductive Effects: No adverse reproductive effects are anticipated.

Teratogenicity and Fetotoxicity: No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. The dose that produced this effect (1.2 ppm) is 60 times higher than the OSHA-PEL. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable concentrations well in excess of the defined occupational exposure limits.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate and Distribution: It is unlikely that significant environmental exposure in the air or water will arise, based on consideration of the production and use of the substance.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Sealed Air Corporation (SAC). The data on this sheet relates to the specific material designated herein. Sealed Air Corporation (SAC) assumes no legal responsibility for use or reliance upon these data.

SECTION 12 - ECOLOGICAL INFORMATION (continued)

Persistence and Degradation: Immiscible with water, but will react with water to produce carbon dioxide, and inert and non-biodegradable solids.

Aquatic Toxicity:

LC ₅₀ :	>1,000 mg/l (Zebra fish, 96 hrs)
LC ₅₀ :	>3,000mg/l (Killifish, 96 hrs)
EC ₅₀ :	>1,000 mg/l (Daphnia magna, 24 hrs)
EC ₅₀ :	>100 mg/l (Activated sludge microorganisms, 3 hrs)

SECTION 13 - DISPOSAL CONSIDERATIONS

Incinerate or dispose of in accordance with existing federal, state and local environmental control regulations. This material is not a hazardous waste under RCRA 40 CFR 261 when disposed of in its purchased form. Small quantities should be treated with deactivation solution outlined in Section 6. Refer to the "Recommendations for the Safe Use and Handling for Foam-in-Place Chemicals" bulletin for additional information concerning disposal of wastes and empty containers. Chemical waste, regardless of quantity, should never be poured into drains, sewers or waterways.

SECTION 14 - TRANSPORT INFORMATION

DOT: Single containers less than 5,000 pounds are not regulated.

IMO: Not regulated.

IATA/CAO Class: Not regulated.

Reportable Quantity (RQ): 5,000 lbs. for Methylene diphenyl diisocyanate (4,4'-MDI), CAS #101-68-8 (= 45% of product).

SECTION 15 - REGULATORY INFORMATION

TSCA Status: All ingredients are listed or are not required to be listed.

CERCLA Status: Discarded product is not a hazardous waste under RCRA, 40 CFR 261, when disposed of in its purchased form.

SARA 302 Extremely Hazardous Substances: None

SARA 311/312 Hazard Categories: Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard

SARA 313 Listed Ingredients: This product contains the following chemicals subject to reporting requirements 100% Diisocyanate compounds (Category Code N120)

This product contains a trace (ppm) amount of monochlorobenzene (CAS# 108-90-7) as an impurity.

SECTION 16 - OTHER INFORMATION

Other Regulations/legislation which apply to this product: Massachusetts Right-to-Know, New Jersey Right-to-Know, Pennsylvania Right-to-Know [Methylene bisphenyl isocyanate (4,4'-MDI), CAS#101-68-8]

This product does not contain any of the listed chemicals which the state of California has found to cause cancer, birth defects or other reproductive harm.

Section(s) Revised: Company logo updated Sections 2, 3, 5, 8, 11, 12 and 16 revised

Printed using vegetable based inks.

M-1

Rev 1/2008

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Sealed Air Corporation (SAC). The data on this sheet relates to the specific material designated herein. Sealed Air Corporation (SAC) assumes no legal responsibility for use or reliance upon these data.

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 12 Sept 17		Name of HWMC Receiving Person Duran Harrison Hernandez			
Section A: Container Information					
Container No.(s): 2017-0683, 0684, 0685		Waste Profile ☒ Awaiting Analysis []		Waste Profile Number: DES 17 25501	
Accumulation Start Date: 12 Sept 17		MSDS []			
Description/Nomenclature: AFFF foam for turn-in		Liquid ☒ Solid [] Aerosol []		Cylinder [] Material to Waste ☒	
Type/Size of Container (DOT Code):		Gross Weight (Lbs):			
DM ☒ Size:		0683 - 386 Lbs			
DF ☒ Size: 55 gallon x 3		0684 - 255 Lbs			
Other [] (state type & size):		0685 - 517 Lbs			
Container Received is Acceptable: Yes [] No []		Container Supplied by HWMC: Yes [] No []		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project DES 1812					
Point of Contact: Roy WATKINS		Signature: <i>[Signature]</i>		Telephone: 678-9170	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895#	22895 PAD []
Container Moved To: On (Date):				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs: Min:		Container Cost:	
CLIN ID:		Cost Per Lb:		Type:	Qty: \$
Total:				Type:	Qty: \$
1348 No.:					
Disposal Cost:			Customer APC/JONO:		
Delivery Order No:		Line Item No.:		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Emergency Services Directorate
 WSMR Fire Department Storage
 Bldg. Number: 1812
 SAP ID: N/A
 DODAAC: WM0M58

•Waste Profile•

DES 17 255 01

Replaces:
 Contact: Roy Watkins
 Phone: 575-678-2253

1. Name of Waste: Aqueous Film Forming Foam (AFFF)
2. Clin: NR05
3. Generating Process: Material to Waste
4. Projected Volume: 6000 lbs Mode of Collection: Other: Drum & Pails/Pallets
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
CHEMGUARD 3% AFFF C-303(1/25/2006):	
Magnesium Sulfate	1 - 2%
proprietary fluorosurfactant	N/A
proprietary hydrocarbon surfactant	N/A
propylene glycol t-butyl ether	2 - 4%
Water	85 - 90%
CHEMGUARD 6% AFFF C-601MS (1/26/2006):	
Water	70 - 80%
Diethylene glycol monobutyl ether	4 - 7%
Magnesium sulfate	0.25 - 0.75%
ethylenediaminetetraacetic acid tetrasodium salt	0.25 - 0.75%
proprietary hydrocarbon surfactant	N/A
proprietary fluorosurfactant	N/A

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached MSDS for CHEMGUARD 3% AFFF C-303(1/25/2006) and CHEMGUARD 6% AFFF C-601MS(1/26/2006).

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Date
 12-Sep-17

**MATERIAL SAFETY
DATA SHEET**

CHEMGUARD 3% AFFF C-303

Revision Date: 1/25/2008

1. PRODUCT IDENTIFICATION

Chemical Family: Surfactant mixture; fire fighting foam concentrate
Aqueous Film Forming Foam

Product name: Chemguard 3% AFFF C-303
Manufacturer: Chemguard, Inc.
204 South 8th Ave.
Mansfield, TX 76063
emergency phone: 817-473-9954

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS NO.	Common Name	ACGIH/PPM TWA STEL	OSHA/PPM PEL	% by wt
7732-18-5	water			85% - 90%
57018-52-7	propylene glycol t-butyl ether	not established		2% - 4%
7487-88-9	magnesium sulfate	N/A	N/A	1% - 2%
proprietary mixture	proprietary hydrocarbon surfactant	N/A	N/A	proprietary
proprietary mixture	proprietary fluorosurfactant	N/A	N/A	proprietary

3. HAZARDS IDENTIFICATION

Routes of entry: Dermal, inhalation and ingestion
Potential Health Effects: May cause skin and eye irritation.

Carcinogenicity: Not a carcinogen.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Call a physician.
Inhalation: Remove to fresh air.
Skin: Rinse with water. Wash with soap and water. Contaminated clothing should be washed before re-use.
Eyes: Rinse with water. Call a physician.

Page 1 of 4

5. FIRE FIGHTING MEASURES

Flash Point: >150°F
Flammable Limits in air (lower % by volume): not evaluated
Flammable Limits in air (upper % by volume): not evaluated
Auto-ignition Temperature: not evaluated

General Hazards: None known.
Fire Fighting Equipment: Self contained breathing apparatus
Fire Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical, Halon
Fire and Explosion Hazards: Decomposition products may be toxic.
Hazardous Combustion Products: oxides of nitrogen, sulfur and carbon

6. ACCIDENTAL RELEASE

Contain spills. Vacuum or pump into storage containers, absorb smaller quantities with absorbent materials, and dispose of properly. Washing area with water will create large amounts of foam.

Dispose of released and contained material in accordance with local, state, and federal regulations. Release to local waste treatment plant only with permission.

7. HANDLING AND STORAGE

Store in original container, or appropriate end-use device. Store at temperatures of 35 - 120 degrees F. If the material freezes, it may be thawed without loss of performance.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection: Wear side-shield safety glasses.
Skin Protection: Wear latex gloves.
Respiratory Protection: Use organic vapor respirator if needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 205° - 212°F
Melting Point: 30° F
Specific Gravity: 1.012 g/ml
Vapor Pressure (mm Hg): N/A
pH: 7.0 - 8.5
Flash Point (PMCC): >150°F
Vapor Density (air = 1): N/A
Solubility in water: 100%
Appearance: clear amber liquid
Odor: slight solvent odor

Page 2 of 4

10. STABILITY AND REACTIVITY

Stability: Stable
Incompatibility: Strong oxidizers
Hazardous Polymerization: Will not occur.
Decomposition Products: Oxides of nitrogen, sulfur, carbon.

11. TOXICOLOGICAL INFORMATION

Eye Irritation: (Rabbits) mild irritant
Skin Irritation: (Rabbits) minimal irritant
Inhalation Toxicity: not evaluated
Sensitization: not evaluated
Teratology: not evaluated
Mutagenicity: not evaluated
Reproduction: not evaluated
Acute Oral Effects (Rats): not evaluated

12. ECOLOGICAL INFORMATION

	CONCENTRATE	SOLUTION (AS USED)
Chemical Oxygen Demand:	210,000 mg/l	6,300 mg/l
Biological Oxygen Demand (20 day):	79,800 mg/l	2,394 mg/l
Biodegradability (B.O.D./C.O.D.)	38%	38%
Total Organic Carbon:	33,600 mg/l	1008 mg/l
LC50 (96 hour pimephales promelas)	233 ppm	7787 ppm
LC50 (48 hour, daphnia magna)	1110 ppm	37,000 ppm

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal regulations. Discharge to waste treatment plants only with permission. Anti-foam agents may be used to reduce foaming in waste streams.

14. TRANSPORTATION INFORMATION

Department of Transportation proper shipping name: not regulated

15. REGULATORY INFORMATION

All ingredients are on the TSCA Inventory.
No components are reportable under SARA Title III, sec. 313.
No components are priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15).
No components are reportable under CERCLA.

16. OTHER INFORMATION

NFPA Hazard Ratings	Health Hazard Rating	HMIS Identification System
1	Health Hazard Rating	1
1	Flammability Rating	1
0	Instability/Reactivity Rating	0

CHANGE LOG:

Page 3 of 4

Revision 2 - Revision date changed.

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**MATERIAL SAFETY
DATA SHEET**

CHEMGUARD 6% AFFF C-601MS

Revision Date: 1/28/2006

1. PRODUCT IDENTIFICATION

Chemical Family: Surfactant mixture, fire fighting foam concentrate

Product name: Chemguard 6% AFFF C-601MS
Aqueous Film Forming Foam

Manufacturer: Chemguard, Inc.
204 South 6th Ave.
Mansfield, TX 76063
emergency phone: 817-473-9864

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS NO.	Common Name	ACGIH/PPM		OSHA/PPM		% by wt
		TWA	STEL	PEL		
7732-18-5	water					70%-80%
112-34-5	diethylene glycol monobutyl ether	N/A	N/A	N/A		4% - 7%
7487-88-9	magnesium sulfate	N/A	N/A	N/A		0.25 - 0.75%
64-02-8	ethylene/aminetetraacetic acid tetrasodium salt					0.25 - 0.75%
proprietary	proprietary hydrocarbon surfactant	N/A	N/A	N/A		proprietary
proprietary	proprietary fluorosurfactant	N/A	N/A	N/A		proprietary

3. HAZARDS IDENTIFICATION

Routes of entry: Dermal, inhalation and ingestion
Potential Health Effects: May cause skin and eye irritation
Carcinogenicity: Not a carcinogen.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Call a physician.
Inhalation: Remove to fresh air.
Skin: Rinse with water. Wash with soap and water. Contaminated clothing should be washed before re-use.
Eyes: Rinse with water. Call a physician.

Page 1 of 4

5. FIRE FIGHTING MEASURES

Flash Point: no flash to boiling
Flammable Limits in air (lower % by volume): not evaluated
Flammable Limits in air (upper % by volume): not evaluated
Auto-ignition Temperature: not evaluated

General Hazards: None known.
Fire Fighting Equipment: Self contained breathing apparatus
Fire Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical, Halon
Fire and Explosion Hazards: Decomposition products may be toxic.
Hazardous Combustion Products: various oxides of carbon, sulfur and nitrogen

6. ACCIDENTAL RELEASE

Contain spills. Vacuum or pump into storage containers, absorb smaller quantities with absorbent materials, and dispose of properly. Washing area with water will create large amounts of foam.

Dispose of released and contained material in accordance with local, state, and federal regulations. Release to local waste treatment plant only with permission.

7. HANDLING AND STORAGE

Store in original container, or appropriate end-use device. Store at temperatures of 35 - 120 degrees F. If the material freezes, it may be thawed without loss of performance.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection: Wear side-shield safety glasses.
Skin Protection: Wear latex gloves.
Respiratory Protection: Use organic vapor respirator if needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 212°F
Melting Point: 27°F
Specific Gravity: 1.07
Vapor Pressure (mm Hg): N/D
pH: 7.0 - 8.5
Flash Point (FMCC): no flash to boiling
Vapor Density (air = 1): N/D
Solubility in water: 100%
Appearance: clear yellow liquid
Odor: faint chemical odor

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10. STABILITY AND REACTIVITY

Stability: Stable
Incompatibility: Strong oxidizers
Hazardous Polymerization: Will not occur.
Decomposition Products: Oxides of nitrogen, sulfur, carbon.

11. TOXICOLOGICAL INFORMATION

Eye Irritation: (Rabbits) mild irritant
Skin Irritation: (Rabbits) minimal irritant
Inhalation Toxicity: not evaluated
Sensitization: not evaluated
Teratology: not evaluated
Mutagenicity: not evaluated
Reproduction: not evaluated
Acute Oral Effects (Rats): not evaluated

12. ECOLOGICAL INFORMATION

	CONCENTRATE	SOLUTION AS USED
Chemical Oxygen Demand:	348,750 mg/l	20,925 mg/l
Biological Oxygen Demand (20 day):	279,000 mg/l	16,740 mg/l
Biodegradability (B.O.D./C.O.D.):	80%	80%
Total Organic Carbon:	not determined	not determined
LC50 96 day (fundulus heteroclitus)	1134 mg/l	18,900 mg/l

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal regulations. Discharge to waste treatment plants only with permission. Anti-foam agents may be used to reduce foaming in waste streams.

14. TRANSPORTATION INFORMATION

Department of Transportation proper shipping name: not regulated
Hazard class: None
UN Number: None

15. REGULATORY INFORMATION

All ingredients are on the TSCA inventory.
No components are reportable under SARA Title III, sec. 313.
No components are priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1).
Priority Pollutant List (40 CFR 401.15).
No components are reportable under CERCLA.

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Identification System	
1	Health Hazard Rating	1	
0	Flammability Rating	0	
0	Instability/Reactivity Rating	0	

Change Log:

Page 3 of 4

Revision 2, 1/28/06

Revision date changed

Page 4 of 4

H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 12/11/2017		Name of HWMC Receiving Person: LerybA	
Section A: Container Information			
Container No.(s): 201740 20		Waste Profile ☒ Awaiting Analysis []	Waste Profile Number: AAF 18 024 01
Accumulation Start Date: 12/11/2017		MSDS ☒	
Description/Nomenclature: Expired OTC meds + Commercial products	Liquid ☒ Solid [] Aerosol [] Cylinder []	Material to Waste ☒	
Type/Size of Container (DOT Code):	Gross Weight (Lbs):		
DM [] Size:	10005		
DF ☒ Size: 50F	24		
Other [] (state type & size):			
Container Received is Acceptable: Yes [] No ☒	Container Supplied by HWMC: Yes ☒ No []	Other [] (provide explanation in comments section below):	
Section B: Generator Information			
Organization/Contractor/Project: AAF / 260			
Point of Contact:		Signature:	Telephone:
Section C: HWMC Personnel Only			
Accumulation/Storage Location:			
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []
S22895# S-5			90 Day Yard Other []
Container Moved To: S-5			Other:
On (Date): 3/7/2018			
Waste Disposal Cost:			
Time Req'd to Process Waste: Hrs: Min:		Container Cost:	
CLIN ID: NRO5C1		Cost Per Lb: \$ 28.84	Type: Qty: \$
Total: \$ 28.84		Type: Qty: \$	
1348 No.: 079 6014			
Disposal Cost: \$ 28.84		Customer APC/JONO:	
Delivery Order No: 2819	Line Item No.: 41	Manifest No.:	
Comments:			

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: AAFES
.... Base Exchange
Bldg. Number: 260
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

AAF 18 024 01
Replaces:
Contact: Jane Hickock
Phone: 575-674-2498

1. Name of Waste: Expired OTC Meds and Commercial Products (Liquids)
2. Clin: NR05
3. Generating Process: Material to Waste
4. Projected Volume: 10 Lbs. Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

•Chemical/Material Composition•

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: >200°F

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: 3-6

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P- Listed Waste:

☐ U - Listed Waste:

Component	Concentration/Range
Alin Nasal Spray	
Povidone	<10%
Oxymetazoline Hydrochloride	0.05%
ORS Olive Oil Mousse:	
Alcohol Denat.	N/A
Crest 3D White Luxe Fluoride Rinse:	
Sodium fluoride	0.0219%
Hartz Hot Spot Stingless Medication:	
Benzalkonium Chloride	N/A
Wahl Pet Shampoo Four In One:	
Sodium Laureth Sulfate	N/A
Shea Moisture Curl & Shine Shampoo	
D-1 Glucoside	N/A

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Chemical Analysis (attach test results) ☒ MSDS (attach MSDS) ☒ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached MSDS and Product label information for various OTC meds and commercial products.

•Generator Certification•

I hereby certify that all information submitted in this and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR/HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD 4085
95882

Date
24-Jan-18

SECTION 10: STABILITY AND REACTIVITY

STABILITY/REACTIVITY:
Stable under normal conditions.

INCOMPATIBLE MATERIALS / CONDITIONS TO AVOID:
Strong Oxidizers, Alkalies, and other strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS / REACTIONS:
No dangerous decomposition is expected if used according to manufacturer's specifications.

SECTION 11: TOXICOLOGICAL INFORMATION

The information presented below pertains to the formulated product unless indicated otherwise.

ACUTE TOXICITY DATA

INGESTION:
Oral LD50: >2000 mg/kg. No effects were observed in animals given 1000 mg/kg. Decreased activity and kidney effects were noted in animals given high doses (2000 mg/kg).

INHALATION:
Crystalline is considered to be highly toxic by inhalation based on oral and IV acute toxicity data.

EYE:
AflurDuration-Crymexazole Nasal Sprays: Not Irritating.

ORAL:
AflurDuration-Crymexazole Nasal Sprays: Oral LD50: >2000 mg/kg. Decreased activity and kidney effects were noted in animals given high doses (2000 mg/kg).

SENSITIZATION:
Crymexazole (10%) was not a skin sensitizer in guinea pigs. Pulmonary irritation was noted in three study animals that died by Day 3 following intraperitoneal injection. No deaths occurred following topical challenge.

ADDITIONAL INFORMATION:
In an experiment designed to study eye irritation, all six rabbits died, within 24 hours, following a single ocular dose of 51 mg (approximately 34 mg/kg) of crystalline.

INTERNAL TOXICITY:
Intravenous injection of crystalline caused increased blood pressure and lethal bradycardia in dogs. By this route of administration, the acute minimal lethal dose of crystalline in conscious dogs was between 250 - 350 µg/kg. Clinical signs in dogs receiving these doses are consistent with a shock syndrome associated with IV administration of sympathomimetic drugs. Treated dogs generally died in a shock-like state which was preceded by salivation, tremors, mydriasis, rapid breathing and excitement. This was followed by muscle twitching, body writhing, prostration, respiratory depression and cardiac arrest.

REPEAT DOSE TOXICITY DATA

SUBCHRONIC / CHRONIC TOXICITY:
Crystalline repeated-dose toxicity has been evaluated in monkeys, dogs, rabbits and rats. The majority of these tests were subchronic ocular tolerance studies. In these studies, monkeys showed mild irritation upon administration as the most significant clinical finding. Ocular changes were more severe in rabbit eyes and included corneal edema and peripheral vascularization. Rats exposed to crystalline by the inhalation route of exposure for 18-35 days showed irritation in the larynx and tail ischemia.

In a subchronic ocular tolerance test using crystalline ophthalmic solution (0.025%), four male and five female monkeys were divided into three equal groups and treated with vehicle (buffered saline), low level (18 drops/day), or high level (36 drops/day) of crystalline ophthalmic solution. Animals were treated five days per week for 13 weeks. Minor discomfort was noted in the majority of crystalline treated animals. No other significant changes in these monkeys were reported. "High level" crystalline treatment (36 drops/day) would be considered a NOAEL.

In dogs, ocular exposure of crystalline at 0.05 mg/kg, 0.09 mg/kg, or 0.18 mg/kg, five days per week, for 13 weeks caused no effects (NOAEL is 0.18 mg/kg/day).

In rabbits, ocular administration of crystalline ophthalmic solution resulted in corneal edema and peripheral vascularization in both short- and long-term repeated-dose studies. Dilated pupils and sluggish pupillary reflexes were also observed. Histopathological evaluations found one crystalline treated eye with a necrotic area on the palpebral conjunctiva and slight vascular proliferation in four corneas.

Rats (P-100s) received a daily, one hour inhaled dose of crystalline or vehicle for 18-35 consecutive days. Due to severe toxicity, the dose of crystalline was reduced twice during the experiment from 0.40 to 0.18 to 0.05 mg/kg, which is approximately equivalent to the estimated human dose in mg/kg body surface area. Three rats died prior to the final dose reduction. Crystalline hydrochloride produced histopathological changes in the larynx and tail. The larynx in 19/20 animals showed minimal to slight equine metastasis of the antero-ventral epithelium and 17/19 animals showed minimal keratinization of the affected epithelium and necrosis of the ventral pouch cartilage. Changes in the distal tail were suggestive of early ischemia. The respiratory tract changes described indicate that crystalline HCl was a slight irritant in the rat at these inhaled levels.

REPRODUCTIVE / DEVELOPMENTAL TOXICITY:
No direct tests to determine the effect of crystalline on fertility and fetal development have been completed in laboratory animals. A mixture of human epidemiology studies and case reports on the developmental effects of crystalline are found in the medical literature. Overall, epidemiology studies do not show an association between birth defects and crystalline exposure during pregnancy.

There is one case report of a child with multiple malformations (microcephaly, multiple sutureal fusions, lateralization of Falx, and torsions of the right torso) born to a mother who had been taking crystalline on a chronic basis. The mother used an crystalline decongestant product for 12 years to treat sinus problems and throughout pregnancy. During this period she reported taking crystalline 2-3 times daily.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY DATA
This product has not been tested for ecotoxicity.

ENVIRONMENTAL DATA
There are no environmental data available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

MATERIAL WASTE
Disposal must be in accordance with applicable federal, state/provincial, and/or local regulations. Incineration is the preferred method of disposal, when appropriate. Operations that involve the crushing or shredding of waste materials or returned goods must be handled to meet the recommended exposure limits.

PACKAGING AND CONTAINERS:
Disposal must be in accordance with applicable federal, state/provincial, and/or local regulations.

SECTION 14: TRANSPORT INFORMATION

This material is not subject to the transportation regulations of DOT, IATA, IMO, and the ADR.

SECTION 15: REGULATORY INFORMATION

TSCA LISTING					
CHEMICAL NAME	California Proposition 65	CARTR	NJRTK	CTRTK	MURTK
Polyethylene Glycol	Exempt	Exempt	Exempt	Exempt	Exempt
Sorbitol	Exempt	Exempt	Exempt	Exempt	Exempt
Povidone	Exempt	Exempt	Exempt	Exempt	Exempt
Propylene Glycol	Exempt	Exempt	Exempt	Exempt	Exempt

U.S. STATE REGULATIONS					
CHEMICAL NAME	California Proposition 65	CARTR	NJRTK	CTRTK	MURTK
Povidone	Exempt	Exempt	Exempt	Exempt	Exempt

CHEMICAL NAME	PARTK	MNRTK	MURTK	EXRTK	LARTR	PARTK
Polyethylene Glycol	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
Propylene Glycol	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt

Fields in the above tables that do not contain data indicate that these materials have not been listed by local regulations.

SECTION 16: OTHER INFORMATION

SECTION 16: OTHER INFORMATION

Although reasonable care has been taken in the preparation of this document, we extend no warranties or make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

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DEPARTMENT ISSUING MSDS:
Global Safety and Environmental Affairs
Occupational and Environmental Toxicology
Schering-Plough Corporation
255 Morris Avenue
Summit, NJ 07901 USA
(800) 770-5878 (US and Canada)
(800) 473-3371 (Worldwide)
Monday to Friday 9am to 5pm (US Eastern Time)

SCHERING-PLOUGH MSDS HELPLINE:
(800) 473-3371

MSDS CREATION DATE:
06-Sep-1999



INGREDIENTS

AQUA(WATER/EAU), ALCOHOL DENAT., COCAMIDOPROPYL BETAINE, POLYQUATERNIUM-11, OLIVE OIL PEG-7 ESTERS, PANTHENOL, HYDROLYZED COLLAGEN, PEG-75 LANOLIN, PEG-12 DIMETHICONE, CETRIMONIUM CHLORIDE, QUATERNIUM-80, OLETH-20, PHENOXYETHANOL, PARFUM (FRAGRANCE), BENZYL ALCOHOL, BENZYL BENZOATE, BENZYL SALICYLATE, CINNAMAL, CITRAL, CITRONELLOL, COUMARIN, EUGENOL, ALPHA-ISOMETHYL IONONE, GERANIOL, HEXYL CINNAMAL, LILIAL, LIMONENE, LINALOOL

SAFETY DATA SHEET

P&G

Issuing Date: 22-May-2015

Revision Date: 01-Jul-2015

Version 2.02

This safety data sheet was developed based on regulations applicable to an industrial/occupational setting and may be applicable to Distribution personnel. This safety data sheet does not address consumer use; for any information relevant to consumer use or retail handling refer to the package label.

1. IDENTIFICATION

Product Name Crest 3D White Luxe Anti-Cavity Fluoride Rinse Diamond Strong - Clean Mint

Product ID: 98875003_RET_NO

Product Type: Finished Product - Consumer (Retail) Use Only

Manufacturer The Procter & Gamble Company
Mason Business Center
6700 Mason-Montgomery Road
Mason, OH 45040-0402
+1 513 822-1000

E-mail Address pgsds.in@pg.com

Emergency Telephone Transportation (24 HR)
CHEMTREC - 1-800-424-9300
(U.S. / Canada) or 1-703-527-3887
Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This is a personal care product that is safe for consumers and other users under normal and reasonably foreseeable use. The safety data sheet was developed based on regulations applicable to bulk substances in an industrial/occupational setting.

For Consumer - Ingredients in this product are not deemed to be hazardous when the product is used as intended. For Manufacturing site personnel see below.

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:

Skin corrosion/irritation Category 2
Eye Damage / Irritation Category 2B
Signal Word WARNING
Hazard Statements Causes skin irritation
Causes eye irritation
Hazard pictograms None

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98875003_RET_NO - Crest 3D White Luxe Anti-Cavity Fluoride Rinse Diamond Strong - Clean Mint

Revision Date: 01-Jul-2015



Precautionary Statements - Prevention

Wash hands thoroughly after handling
Wear protective gloves

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash before re-use.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation.

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Glycerin	-	No	56-81-5	1 - 5
Propylene glycol	-	No	57-55-8	1 - 5
Hydrogen peroxide solution	-	No	7722-84-1	1 - 5

Active pharmaceutical ingredient

Chemical Name	Synonyms	CAS-No	Weight %
Sodium fluoride	-	7661-49-4	0.0219

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove and wash contaminated clothing before re-use.

Ingestion Call a physician or poison control center immediately if overdosed.

Inhalation None under normal use.

Most important symptoms/effects, acute and delayed MAY CAUSE SKIN IRRITATION. May cause eye irritation.

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98875003_RET_NO - Crest 3D White Luxe Anti-Cavity Fluoride Rinse Diamond Strong - Clean Mint

Revision Date: 01-Jul-2015

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water. Dry chemical. Alcohol-resistant foam.

Unsuitable Extinguishing Media None.

Special hazard None known.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective gloves/clothing and eye/face protection.

Advice for emergency responders Use personal protective equipment as required.

Environmental precautions Household:
Product is safe to dispose of in household garbage or down the drain.
Non-household:
Do not discharge product into natural waters without pre-treatment or adequate dilution.

Methods and materials for containment and cleaning up

Methods for containment Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Product Name Crest 3D White Luxe Anti-Cavity Fluoride Rinse Diamond Strong - Clean Mint

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
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Revision Date: 01-Jul-2015

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWA/LEV	British Columbia
Glycerin	56-81-5	TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³
Propylene glycol	57-55-8	-	-	TWA 10 mg/m ³	TWA 3 mg/m ³
Hydrogen peroxide solution	7722-84-1	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWA/LEV	British Columbia
Glycerin	56-81-5	TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³	TWA 10 mg/m ³
Propylene glycol	57-55-8	-	-	TWA 10 mg/m ³	TWA 3 mg/m ³
Hydrogen peroxide solution	7722-84-1	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³	TWA 1 ppm TWA 1.4 mg/m ³

No relevant exposure guidelines for other ingredients

Exposure controls

This safety data sheet was developed based on regulations applicable to bulk substances in an industrial/occupational setting. For Consumers and Retail personnel - follow product label directions and warnings when using and/or handling the product. For Distribution and Manufacturing sites - follow the procedure as listed according to your Workplace Safety protocols.

Engineering Measures

No information available

Personal Protective Equipment

Eye Protection Manufacturing Sites:
Safety glasses with side-shields.
Distribution, Workplace and Household Settings:
No special protective equipment required.

Hand Protection Manufacturing Sites:
Wear protective natural rubber, nitrile rubber, Neoprene[®] or PVC gloves.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
Distribution, Workplace and Household Settings:
No special protective equipment required.

Skin and Body Protection No special protective equipment required.

Respiratory Protection No special protective equipment required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	Appearance	Odor	Odor threshold	Property	Values	Note
Liquid	Clear colorless	Mint-like	No information available	pH value	3.0 - 6.0	
				Melting/freezing point	No information available	
				Boiling point/boiling range	No information available	
				Flash point	No information available	
				Evaporation rate	No information available	
				Flammability (solid, gas)	No information available	

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Environmental precautions: Rinse Diamond Strong - Clean Mint
Revision Date: 01-Jul-2015

Flammability Limits in Air: No information available
Upper Flammability Limit: No information available
Lower Flammability Limit: No information available
Vapor pressure: No information available
Vapor density: No information available
Relative density: No information available
Water solubility: No information available
Solubility in other solvents: No information available
Partition coefficient: n-octanol/water: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Viscosity of Product: No information available
XOC Content (%): No information available

10. STABILITY AND REACTIVITY	
Reactivity	None under normal use conditions
Stability	Stable under normal conditions
Hazardous polymerization	Hazardous polymerization does not occur
Hazardous Reactions	None under normal processing
Conditions to Avoid	None under normal processing
Materials to Avoid	None in particular
Hazardous Decomposition Products	None under normal use

11. TOXICOLOGICAL INFORMATION				
Product Information				
Information on likely routes of exposure				
Inhalation	No known effect.			
Skin contact	Irritating to skin.			
Ingestion	No known effect.			
Eye contact	Avoid contact with eyes. Irritating to eyes			
Delayed and immediate effects as well as chronic effects from short and long-term exposure				
Acute toxicity	No known effect.			
Skin corrosion/irritation	Irritating to skin.			
Serious eye damage/eye irritation	Irritating to eyes.			
Skin sensitization	No known effect			
Respiratory sensitization	No known effect.			
Germ cell mutagenicity	No known effect			
Neurological Effects	No known effect			
Reproductive toxicity	No known effect			
Developmental toxicity	No known effect			
Teratogenicity	No known effect			
STOT - single exposure	No known effect			
STOT - repeated exposure	No known effect			
Target Organ Effects	No known effect			
Aspiration hazard	No known effect.			
Carcinogenicity	No known effect			
Component Information				
Chemical Name	CAS No.	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene glycol	67-58-5	2000 mg/kg (rat)	2000 mg/kg (rabbit)	

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96876003_RET_MQ - Crest 3D White Luxe Anti-Cavity Fluoride
Rinse Diamond Strong - Clean Mint
Revision Date: 01-Jul-2015

Hydrogen peroxide solution	7722-84-1	603.7 mg/kg bw (OECD 401)	> 2000 mg/kg bw
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13. DISPOSAL CONSIDERATIONS	
Waste treatment	
Waste from Residues / Unused Products	Non-household: Product is safe to dispose of in household garbage or down the drain. The product is not expected to be hazardous to waste water treatment processes
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations
California Hazardous Waste Codes (non-household setting)	331
14. TRANSPORT INFORMATION	

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96876003_RET_MQ - Crest 3D White Luxe Anti-Cavity Fluoride
Rinse Diamond Strong - Clean Mint
Revision Date: 01-Jul-2015

Food and Drug Administration (FDA)
The product described in this Safety Data Sheet is regulated under the Federal Food, Drug, and Cosmetics Act and is safe to use as per directions on container, box or accompanying literature (where applicable)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPs) or VOCs per the Clean Air Act:

Chemical Name	CAS-No.	CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
Methanol	67-58-1	X
Phenol	105-95-2	X

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No.	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium fluoride	7681-49-4	1000 lb	-	-	X
Phosphoric acid	7664-38-2	5000 lb	-	-	X
Phenol	105-95-2	1000 lb	X	X	X

California Proposition 65
This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No.	New Jersey
Glycerin	56-81-5	X
Propylene glycol	57-55-8	X
Hydrogen peroxide solution	7722-84-1	X

Chemical Name	CAS-No.	Pennsylvania
Glycerin	56-81-5	X
Propylene glycol	57-55-8	X
Hydrogen peroxide solution	7722-84-1	X
1,2-Bis(hydroxyethyl)hydrazine	119-36-8	X
1,2-Bis(hydroxyethyl)hydrazine, 1,1-dioxide	128-44-9	X
Sodium fluoride	7681-49-4	X
Phosphoric acid	7664-38-2	X

Chemical Name	CAS-No.	Rhode Island
Hydrogen peroxide solution	7722-84-1	X

International Inventories

United States

Not applicable

Canada

The product is in compliance with CEPA for import by P&G

EUROPEAN UNION

REACH

REACH - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

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96876003_RET_MQ - Crest 3D White Luxe Anti-Cavity Fluoride
Rinse Diamond Strong - Clean Mint
Revision Date: 01-Jul-2015

16. OTHER INFORMATION	
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Issuing Date: 22-May-2015
Revision Date: 01-Jul-2015

Disclaimer
The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS

Chemical Name	Proposition 65 Hazard Level
Benzalkonium Chloride	2
Vitamin E	3
Aloe	3
...	...

Ingredients

Active Ingredient: Benzalkonium Chloride also contains Vitamin E and Aloe

Chemical Name	Proposition 65 Hazard Level
Benzalkonium Chloride	2
Vitamin E	3
Aloe	3
...	...



Ingredients:

Purified Water (Aqua), Sodium Laureth Sulfate (Cleanser from Refined Coconut Oil), Soyamide (Cleanser from Refined Soy), EMGS (Pearlizing Agent), Cocamidopropyl Betaine (Cleanser from Coconut Fatty Acids), Polysorbate-20 (Sugar Cleanser), Glycerin (Vegetable Glycerin), Guar Hydroxypropyltrimonium Chloride (Guar Conditioner), Chamomile Extract, Fragrance, Potassium Sorbate (Freshness Assurer), FDA Approved Colors



Ingredients

Deionized Water, Dacetyl Glucoside (Coconut Oil), Cocos Nucifera (Coconut) Oil*, Butyrospermum Parkii (Shea Butter), Aloe Vera Leaf Juice, Vitamin E, Melia Azadirachta (Neem) Seed Oil, Sodium Lauroyl Lactylate (Coconut Oil), Panthenol (Vitamin B-5), Rosemary Extracts, Silk Protein, Proprietary Essential Oil Blend, Guar Gum, Stearic Acid, Lonicera Caprifolium (Honeysuckle) Flower (and) Lonicera Japonica (Japanese Honeysuckle) Flower Extract

H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 10/16/2017		Name of HWMC Receiving Person: L. G. B. A.			
Section A: Container Information					
Container No.(s): 2017-0752		Waste Profile: ☒ Awaiting Analysis []	Waste Profile Number: AAF 17 352 01		
Accumulation Start Date: 10/16/2017		MSDS ☒			
Description/Nomenclature: Expired OTC meds + Commercial products	Liquid []	Solid ☒ Aerosol []	Cylinder [] Material to Waste []		
Type/Size of Container (DOT Code):	Gross Weight (Lbs): 3 LBS				
DM [] Size:					
DF ☒ Size: 3.5 DF					
Other [] (state type & size):					
Container Received is Acceptable: Yes [] No ☒	Container Supplied by HWMC: Yes ☒ No []	Other [] (provide explanation in comments section below):			
Section B: Generator Information					
Organization/Contractor/Project: AAF 1 260					
Point of Contact: Jane Hickok / Steven P.	Signature: [Signature]	Telephone: 674-2498			
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) ☒	1893 (5) []	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895# S-7	22895 PAD []
Container Moved To: S-7				Other:	
On (Date):					
Waste Disposal Cost:					
Time Req'd to Process Waste: Hrs: Min:			Container Cost:		
CLIN ID: NR01C1			Cost Per Lb: \$25.75		
Total: \$25.75			Type: Qty: \$		
1348 No.: 0186011			Customer APC/JONO:		
Disposal Cost: \$25.75		Delivery Order No: 2819			
Line Item No.: 45		Manifest No.:			
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: AAFES
 Base Exchange
 Bldg. Number: 260
 SAP ID: N/A
 DODAAC: WM0M58

•Waste Profile•

AAF 17 352 01

Replaces:
 Contact: Jane Hickock
 Phone: 575-674-2498

1. Name of Waste: Expired OTC Meds and Commercial Products (Solids)
2. Clin: NR01
3. Generating Process: Material to Waste
4. Projected Volume: 3 Lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
Benadryl Allergy Ultra Tab:	
Diphenhydramine Hydrochloride USP	10-15%
Microcrystalline Cellulose NF	50-60%
Exchange Select Pain Relief PM:	
Acetaminophen	500 mg
Diphenhydramine citrate	38 mg
Rolaids Softchews (strawberry):	
Calcium Carbonate USP	1330 mg
Magnesium Hydroxide USP	235 mg

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☒ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached MSDS and Product label information for various OTC meds and commercial products.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Digitally signed by HARRISON.JON.EDWARD.14085582
 DN: cn=J.E. Harrison, o=U.S. Government, ou=DoD, email=jeh@hqs.com, c=US
 serial=HARRISON.JON.EDWARD.14085582
 Date: 2017.12.18 08:29:44 -0700

Date
 18-Dec-17



US - OSHA SAFETY DATA SHEET

10/16/14

11/24/14

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY/ UNDER TAKING

Product Identifier
Product Name BENADRYL Allergy ULTRATAB Tablets

Other means of identification
Product Code MCHC-BDRALUT
C-1183
Synonyms Benadryl Ultratabs

Recommended use of the chemical and restrictions on use
Recommended Use Temporarily relieves these symptoms due to hay fever or other upper respiratory allergies: runny nose; sneezing; itchy, watery eyes; itching of the nose or throat.

Recommended Restrictions Temporarily relieves these symptoms due to the common cold: runny nose, sneezing
None Known.

Details of the supplier of the safety data sheet
Supplier Address
McNeil Consumer Healthcare, Division of McNeil-PPC, Inc.
7050 Camp Hill Rd.
Fort Washington, PA
10934-2299

Emergency telephone number
Company Phone Number (215) 273-7000
24 Hour Emergency Phone Number For 24-hour emergency assistance, call the 3E Company at 1 (877)-236-9671
Provide the technician with the following product tracking code: 2277

2. HAZARDS IDENTIFICATION**Classification**

Physical hazards
Not Classified

Health Hazards
Not classified

OSHA Regulatory Status
Over the counter drugs in their solid final form (e.g. capsules, tablets or pills) are considered exempt under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, in an industrial setting where a component's occupational exposure limits may be surpassed, they can be considered hazardous.

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Label elements**Emergency Overview**

Hazard statements
This material does not meet the criteria for classification.

Hazard Symbol
None

Signal Word
None

Appearance Pink or mottled pink
Film-coated tablet with embossed "B" on one side and debossed with "WL 25" on the opposite side

Physical state Solid

Odor Not available

Precautionary Statements - Prevention
Not Available

Precautionary Statements - Response
No specific first aid measures noted.

Precautionary Statements - Storage
Store at 20 - 25 °C (68 - 77 °F). Protect from light.

Precautionary Statements - Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified (HNOC)
Not classified.

Other information**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

Synonyms	Benadryl Ultratabs		
	Chemical Name	CAS No.	Weight-%
	Diphenhydramine Hydrochloride USP	147-24-0	10-15
	Microcrystalline Cellulose NF	8004-34-6	50-60

4. FIRST AID MEASURES

First aid measures

Eye contact
In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

Skin Contact
Should skin irritation, allergic reaction, or rash occur, remove contaminated clothing if required, then physically remove as much of the product as possible. Wash affected area with soap and water, then thoroughly flush the area with water. If irritation persists, seek medical advice.

Inhalation
If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Ingestion
If symptomatic, seek medical advice. If ingestion of a large amount does occur, call a poison control center immediately.

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Most important symptoms and effects, both acute and delayed

Symptoms
Diphenhydramine is a potent anticholinergic agent. This activity is responsible for the side-effects of dry mouth and throat, increased heart rate, pupil dilation, urinary retention, constipation, and, at high doses, hallucinations or delirium.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Substance extinguishing media**

Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical

Not applicable.

Explosion data

Sensitivity to Mechanical Impact None known.
Sensitivity to Static Discharge None known.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions
Wear appropriate personal protective equipment (see Section 8).

Environmental precautions

Environmental precautions
See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Vacuum and place into proper container for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling
Observe good industrial hygiene practices. Minimize dust generation and accumulation.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep only in the original container. Store at 20 - 25 °C (68 - 77 °F). Protect from light. Keep away from food, drink, and animal feedstuffs. Keep out of reach of children.

Incompatible materials
None known based on information supplied. Strong oxidizing agents.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**Control parameters**

Biological limit values
No biological limits noted for this ingredient.

Exposure Guidelines
Based on a review of animal and clinical literature, an Occupational Exposure Limit (OEL) of 139 µg/m³ is recommended as an 8-hour TWA for Diphenhydramine Hydrochloride.

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Chemical Name	ACGIH TLV	OSHA PEL	MOSH IDLH
Microcrystalline Cellulose NF 8004-34-6	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 1 mg/m ³

Appropriate engineering controls**Engineering Controls**

The health hazard risks of handling this material are dependent on factors, such as physical form and quantity. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

Individual protection measures, such as personal protective equipment

Eye/face protection
None required for consumer use. In laboratory, medical or industrial settings, safety glasses with side shields are recommended. The use of goggles or full face protection may be required depending on the industrial exposure setting. Contact a health and safety professional for specific information.

Skin and body protection
None required for consumer use. In laboratory, medical or industrial settings, gloves and lab coats are recommended. The use of additional personal protective equipment such as shoe coverings, gaudlets, hood or head coverings may be necessary. Contact a health and safety professional for specific information.

Hand protection
Use protective gloves. None required for consumer use. In laboratory, medical or industrial settings, gloves and lab coats are recommended. The use of additional personal protective equipment such as shoe coverings, gaudlets, hood or head coverings may be necessary. Contact a health and safety professional for specific information.

Respiratory protection
None required for consumer use. Respirators may be required for certain laboratory and manufacturing tasks if engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (where the exposure limits have not been established). Workplace risk assessments should be completed before specifying and implementing respirator usage. All respirators must conform to specifications for efficiency and performance. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134. Contact a health and safety professional or manufacturer for specific information.

Thermal hazards
Not applicable.

General Hygiene Considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state Solid

Appearance Pink or mottled pink film-coated tablet. Odor: Not available.
with embossed "B" on one side and debossed with "WL 25" on the opposite side.

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Color	Pink	Odor threshold	Not available
Property	Values	Remarks - Method	
pH	Not available.		
Melting point/freezing point	Not available.		
Boiling point / boiling range	Not available.		
Flash point	Not available.		
Evaporation rate	Not available.		
Flammability (solid, gas)	Not available.		
Flammability Limit in Air	Not available.		
Upper flammability limit:	Not available.		
Lower flammability limit:	Not available.		
Vapor pressure	Not available.		
Vapor density	Not available.		
Specific Gravity	Not available.		
Water solubility	Not available.		
Solubility in other solvents	Not available.		
Partition coefficient	Not available.		
Autoignition temperature	Not available.		
Decomposition temperature	Not available.		
Kinematic viscosity	Not available.		
Dynamic viscosity	Not available.		
Explosive properties	Not available.		
Lower explosive limit:	Not available.		
Upper explosive limit:	Not available.		
Oxidizing properties	Not available.		

10. STABILITY AND REACTIVITY

Reactivity

Stable at normal conditions.

Chemical stability

Stable

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to avoid

Low and elevated temperatures. Minimize dust generation and accumulation.

Incompatible materials

None known based on information supplied. Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides, Silicon oxides, Nitrogen Oxides, Sodium oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Eye contact	Product dust or powder may cause mechanical eye irritation.
Skin Contact	This product is not expected to be a skin hazard.

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Ingestion Unknown

Acute Effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50	Intravenous LD50
Diphenhydramine Hydrochloride USP 147-24-0	= 500 mg/kg (Rat) = 180 mg/kg (Mouse)	= 280 mg/kg (Rat)	-	= 42 mg/kg (Rat) = 29 mg/kg (Mouse)
Microcrystalline Cellulose NF 9004-34-6	> 5 g/kg (Rat)	> 2 g/kg (Rabbit)	> 5800 mg/m ³ (Rat) 4 h	-

Acute intravenous lowest observed toxic dose (TDLo) for diphenhydramine hydrochloride was 5 mg/kg in rats and 1 mg/kg in mice

Information on toxicological effects

Symptoms

Diphenhydramine is a potent anticholinergic agent. This activity is responsible for the side-effects of dry mouth and throat, increased heart rate, pupil dilation, urinary retention, constipation, and, at high doses, hallucinations or delirium.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	Not available.
Germ cell mutagenicity	Not available.
Cardiogenicity	Not available.
Reproductive toxicity	Not available.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard

Numerical measures of toxicity - Not available

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product's components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of wastes in accordance with applicable federal, state, and local regulations

Local disposal regulation

Dispose in accordance with local regulations

Hazardous waste code

Hazardous waste codes should be determined in accordance with hazardous waste regulatory authorities

Waste from residue / unused packaging

Dispose in accordance with applicable regulations

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied

14. TRANSPORT INFORMATION

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as a dangerous good.
IMDG	Not regulated as a dangerous good.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This substance/mixture is not intended to be transported in bulk

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1005)
Over-the-counter drugs in their solid final form (e.g. tablets or pills) are considered exempt under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, in an industrial setting where a component's occupational exposure limits may be surpassed, they can be considered hazardous listed

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

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MCHC-BDRALUT BENADRYL Allergy ULTRATAB
Tablets

Revision Date

Drug Enforcement Administration (DEA) List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.17(c))
Not regulated

DEA Exempt Chemical Mixtures Code Number
Not regulated

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (49 CFR 68.139)
Not regulated

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Safe Drinking Water Act (SDWA)

Not regulated

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

CA State Regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Microcrystalline Cellulose NF 9004-34-6	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Available

16. OTHER INFORMATION

Revision Date

Revision Not available

Not available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 10/26/2017		Name of HWMC Receiving Person: Cyba	
Section A: Container Information			
Container No.(s): 2017-0769		Waste Profile ☒ Awaiting Analysis []	Waste Profile Number: APTG 17 352 01
Accumulation Start Date: 10/26/2017		MSDS ☒	
Description/Nomenclature: FS-3758 PART B	Liquid ☒	Solid []	Aerosol []
	Cylinder []	Material to Waste ☒	
Type/Size of Container (DOT Code):	Gross Weight (Lbs): 1 Lb		
DM [] Size:			
DF ☒ Size: 1.25 DF			
Other [] (state type & size):			
Container Received is Acceptable: Yes ☒ No []	Container Supplied by HWMC: Yes [] No ☒	Other [] (provide explanation in comments section below):	
Section B: Generator Information			
Organization/Contractor/Project: 764 TG/DET 1 / 5018 Chem Storage			
Point of Contact: Jason Cum	Signature: Jason Cum	Telephone: 505-572-1113	
Section C: HWMC Personnel Only			
Accumulation/Storage Location:			
1890 (1) ☒	4891 (2) ☒	Cover (3) []	4892 (4) ☒
1893 (5) []	90 Day Yard Other []		
22903 (A) []	22904 (B) ☒	22905 (C) []	22906 (D) []
S22895# S-6		22895 PAD []	
Container Moved To: S22895-S-6 B		Other:	
On (Date): 01-17-18			
Waste Disposal Cost:			
Time Req'd to Process Waste:	Hrs:	Min:	Container Cost:
CLIN ID: NR05C1	Cost Per Lb: \$28.84	Type:	Qty: \$
Total: \$28.84	Type:	Qty:	\$
1348 No.: 0186001			
Disposal Cost: \$28.84		Customer APC/JONO:	
Delivery Order No: 2819	Line Item No.: 43	Manifest No.:	
Comments:			

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Air Force 704 Test Group
....
RAMS Maintenance Facility
Bldg. Number: 5018
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

AFTG 17 352 01

Replaces:
Contact: Bethany Wernle
Phone: 575-572-1207

1. Name of Waste: FS-3758 PART B RTV Adhesive
2. Clin: NR05
3. Generating Process: Material to Waste
4. Projected Volume: 1 Lb Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

•Chemical/Material Composition•

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: 223°F
☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

Component	Concentration/Range
Silanetriol, ethyl-, triacetate	75-80%
Silanetriol, methyl-, triacetate	15-20%
Dibutyltin diacetate	0.16%

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name: Corrosive Liquid, acidic, inorganic, n.o.s.
(Ethyltriacetoxysilane, Methyltriacetoxysilane solution)

Waste Codes: Non-RCRA Regulated
Hazard Class: 8 UN or NA No.: UN3264 PG: II
CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 154

Part 3

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached SDS for Nusil FS3758 Part B RTV Adhesive (02/26/15)

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Digitally signed by HARRISON.JON.EDWARD.14085882
DN: cn=HARRISON.JON.EDWARD.14085882, o=US, ou=U.S. Government, ou=DoD, ou=AF, ou=AFMRL, ou=AFMRL-14085882, email=HARRISON.JON.EDWARD.14085882@afmrl.afmrl.mil, c=US

Date
18-Dec-17

FS-3758 PART B

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 02/28/2013 Date of issue: 02/28/2013

Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Product name : FS-3758 PART B
Synonyms : RTV Fluorosilicone Adhesive

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For professional use only

1.3. Details of the supplier of the safety data sheet

nuSIL Technology LLC
1050 Cindy Lane
Carplinteria, California 93013
USA
(805) 684-8780
ghs@nusil.com
www.nusil.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and Maritime)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute Tox. 4 (Oral) H302
Skin Corr. 1B H314
Eye Dam. 1 H318
Repr. 1B H360
Aquatic Acute 3 H402
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

Hazard statements (GHS-US)

Precautionary statements (GHS-US)

Danger
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H360 - May damage fertility or the unborn child
H402 - Harmful to aquatic life
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P312 - IF SWALLOWED: Call a poison center or doctor if you feel

02/28/2013

EN (English US)

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FS-3758 PART B

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 60 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries : Harmful if swallowed. Causes serious eye damage. Causes severe skin burns. May damage fertility or the unborn child.
Symptoms/Injuries after inhalation : May cause irritation to the respiratory tract.
Symptoms/Injuries after skin contact : Causes severe skin burns.
Symptoms/Injuries after eye contact : Causes serious eye damage.
Symptoms/Injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms

May damage fertility or the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Fire-Fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide (CO₂).
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not considered flammable but may burn at high temperatures.
Explosion hazard : Product is not explosive.
Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Use water spray or fog for cooling exposed containers. Do not allow run-off from firefighting to enter drains or water courses. Do not breathe fumes from fires or vapors from decomposition.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

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2.3. Other hazards

Other hazards not contributing to the : Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Silaneetriol, ethyl-, triacetate	(CAS No) 17689-77-9	75 - 80	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318
Silaneetriol, methyl-, triacetate	(CAS No) 4253-34-3	15 - 20	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318
Dibutyltin diacetate	(CAS No) 1067-33-0	.16	Acute Tox. 2 (Oral), H300 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Muta. 2, H341 Repr. 1B, H360 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If exposed or concerned: Get medical advice/attention.
First-aid measures after Inhalation : When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

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Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container. Clear up spills immediately and dispose of waste safely. Do not take up in combustible material such as: saw dust or cellulose material. Contact competent authorities after a spill.

6.4. Reference to other sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapor and mist. Use appropriate personal protection equipment (PPE).
Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up.
Incompatible products : Strong acids. Strong bases. Strong oxidizers.

7.3. Specific end use(s)

For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
Personal protective equipment : Protective goggles. Gloves. Protective clothing. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing

Hand protection : Chemically resistant materials and fabrics.
Eye protection : Wear chemically resistant protective gloves.
Skin and body protection : Chemical safety goggles and face shield.
Respiratory protection : Wear suitable protective clothing.
Other information : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.
When using, do not eat, drink or smoke.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Translucent
Odor	: Acetic Acid
Odor threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 223 °F (106.11 °C)
Auto-ignition Temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Specific Gravity	: 1.14
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available

9.2. Other information

VOC content : < 1 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Sources of ignition. Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). From hydrolysis: acetic acid. Thermal decomposition generates : Corrosive vapors. Silicon oxides. Oxides of tin.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

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ATE (Oral)	1,455.34 mg/kg body weight
Silanetriol, ethyl-, triacetate (17689-77-9)	
LD50 oral rat	1460 mg/kg
Silanetriol, methyl-, triacetate (4253-34-3)	
LD50 oral rat	1437 - 1780 mg/kg
Dibutyltin diacetate (1067-33-0)	
LD50 oral rat	32 mg/kg

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SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

UN-No.(DOT) : 3264

DOT NA no.

UN3264

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid, acidic, inorganic, n.o.s.

(Ethyltriacetoxysilane and Methyltriacetoxysilane solution)

Department of Transportation (DOT) : B - Class B - Corrosive material 49 CFR 173.136

Hazard Classes

Hazard labels (DOT) : B - Corrosive



DOT Symbols

Packing group (DOT) : G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406

cargo tanks are not authorized.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31H21). Additional Requirement: Only liquids with a

vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or

130 kPa at 55 °C (1.3 bar at 131 °F) are authorized.

T11 - G 178.274(d)(2) Normal 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling

determined by the following: Degree of filling = 95 / (1 + a (tr - tr)) Where: tr

is the maximum mean bulk temperature during transport, tr is the mean

coefficient of cubical expansion of the liquid between the mean

temperature of the liquid during filling (tr) and the maximum mean bulk

temperature during transportation (tr) both in degrees Celsius. b. For

liquids transported under ambient conditions may be calculated using the

formula: a = (d15 - d50) / 35d50 Where: d15 and d50 are the densities (in

units of mass per unit volume) of the liquid at 15 °C (59 °F) and 50 °C (122 °F),

respectively.

TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa)

may be used provided the calculated test pressure is 4 bar or less based on

the MAWP of the hazardous material, as defined in 178.275 of this

subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.300) : 154

DOT Packaging Non Bulk (49 CFR 173.300) : 202

DOT Packaging Bulk (49 CFR 173.300) : 242

14.3. Additional information

Emergency Response Guide (ERG) : 154

Number

Other information : No supplementary information available.

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ATE (Oral)	32.00 mg/kg body weight
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Cardiotoxicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact	: Causes severe skin burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.
Chronic symptoms	: May damage fertility or the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Dibutyltin diacetate (1067-33-0)	
EC50 Daphnia 1	0.75 (0.65 - 0.86) mg/l Exposure time: 48-Hour (Species: Daphnia magna)
ErC50 (algae)	0.035 mg/l
EC50 Chronic	0.035 mg/l Exposure time: 72 hour (Species: Skeletonema costatum)
NOEC (acute)	0.65 mg/l
NOEC chronic crustacea	0.32 mg/l (48-Hour EC50 Daphnia magna)

12.2. Persistence and degradability

FS-3758 PART B	
Persistence and degradability	Not established.
Dibutyltin diacetate (1067-33-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

FS-3758 PART B	
Bioaccumulative potential	Not established.
Silanetriol, methyl-, triacetate (4253-34-3)	
Log Pow	0.25 KowWin
Dibutyltin diacetate (1067-33-0)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, and international regulations.

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Transport by sea

DOT Vessel Stowage Location : B - (I) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

MFAG-No : 154

Air transport

DOT Quantity Limitations Passenger : 1 L

aircraft/rail (49 CFR 173.27)

DOT Quantity Limitations Cargo : 30 L

aircraft only (49 CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard

Silanetriol, ethyl-, triacetate (17689-77-9)

Listed on the United States TSCA (Toxic Substances Control Act) Inventory

Silanetriol, methyl-, triacetate (4253-34-3)

Listed on the United States TSCA (Toxic Substances Control Act) Inventory

Dibutyltin diacetate (1067-33-0)

Listed on the United States TSCA (Toxic Substances Control Act) Inventory

15.2. US State regulations

Silanetriol, ethyl-, triacetate (17689-77-9)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Silanetriol, methyl-, triacetate (4253-34-3)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

Dibutyltin diacetate (1067-33-0)

RTK - U.S. - Massachusetts - Right To Know List

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information, including date of preparation or last revision

Revision date : 02/26/2013

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Full text of H-phrases:

Acute Tox. 2 (Oral)	Acute toxicity (oral) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1

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Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Muta. 2	Germ cell mutagenicity Category 2
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Sens. 1B	Skin sensitization Category 1B
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
H300	Fatal if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H341	Suspected of causing genetic defects
H360	May damage fertility or the unborn child
H370	Causes damage to organs
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



We believe that the information contained herein is current as of the date of this Safety Data Sheet, and is offered in good faith. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of NuSil Technology, it is the user's obligation to determine the conditions of safe use of the product.

3025 US (GHS HazChem 2012)

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 12/19/2017		Name of HWMC Receiving Person: Hernandez / Leyba			
Section A: Container Information					
Container No.(s): 2017-1030		Waste Profile ☒ Awaiting Analysis []	Waste Profile Number: AFTG 17 333 01		
Accumulation Start Date: 12/19/2017		MSDS []			
Description/Nomenclature: Paint & Adhesive Related material	Liquid []	Solid ☒ Aerosol []	Cylinder [] Material to Waste []		
Type/Size of Container (DOT Code):	Gross Weight (Lbs): 61 LBS				
DM ☒ Size: 550m					
DF [] Size:					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []	Container Supplied by HWMC: Yes [] No ☒	Other [] (provide explanation in comments section below):			
Section B: Generator Information					
Organization/Contractor/Project: FORTY / DET 1 / 5007					
Point of Contact: JASON LUM	Signature: JASON LUM	Telephone: 575-572-1113			
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) ☒	S22895#	22895 PAD []
Container Moved To: D				Other:	
On (Date): 3/14/2018					
Waste Disposal Cost:					
Time Req'd to Process Waste: Hrs: Min:			Container Cost:		
CLIN ID: TXD7C4	Cost Per Lb: 190.55	Type:	Qty:	\$	
Total: \$ 190.55		Type:	Qty:	\$	
1348 No.: 0296003					
Disposal Cost: \$ 190.55			Customer APC/JONO:		
Delivery Order No: 2819		Line Item No.: 7		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Air Force 704 Test Group
.... Special Project (Column Bldg.)
Bldg. Number: 5007
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

AFTG 17 333 01
Replaces: AFTG 17 261 02
Contact: Bethany Wernle
Phone: 575-572-1207

1. Name of Waste: Paint & Adhesive Related Material
2. Clin: TX07
3. Generating Process: Painting Operations
4. Projected Volume: N/A Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

•RCRA Characteristics•

•Chemical/Material Composition•

Physical State:

☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:

☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☒ F- Listed Waste: F003

☐ P - Listed Waste:

☐ U - Listed Waste:

Component

Concentration/Range

3M Super 77 Classic Spray Adhesive:

Cyclohexane

10-30%

Eccostock Cat 12-2H:

Trimethylolpropane/Adipic Acid Polymer

70-80%

Eccostock FPH:

Toluene-2,4-Diisocyanate

55-65%

Klean-Strip Acetone:

Acetone

100%

ITW Scrubs Hand Cleaner Towels:

Water

60-100%

Ethoxylated Alcohols

1-5%

System Three 51-Cure Resin Part A:

System Three 51-Cure Fast Hardener Part B:

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☐ No

Shipping Name:

Hazardous Waste, Solid, n.o.s. (Acetone, Toluene Diisocyanate)

Waste Codes: F003

Hazard Class: 9 UN or NA No.: NA3077 PG: III

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☒ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached Memo and MSDS for various paint and adhesive products.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Digitally signed by HARRISON.JON.EDWARD.1408505882
DN: cn=J.E. Harrison, o=DRMO, ou=WSMR, email=jeharrison@drmo.nm.gov, c=US
Date: 2017.12.19 16:36:15 -0700

Date
29-Nov-17

HWMCNovember2010

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

29 November 2017

MEMORANDUM FOR: White Sands Missile Range, Hazardous Waste Management Center
SUBJECT: Profile for Special Project (Column Build), Bldg. 5007 for the Waste Turn-In on 11/29/2017.

NRTF is requesting the continued use of the profile AFTG 17-261-02 along with one additional product for the solid paint and adhesive related material waste generated for the column build project in Bldg. 5007. The following additional product was used in this waste stream: C-Foam Part A and B. A copy of the SDSs are attached to this memo.

If you have any questions regarding this memorandum please contact Bethany Wernle at 575-572-1207.

Bethany Wernle

Bethany Wernle
RT&T Environmental Engineer

3M™ Super 77 Classic Spray Adhesive 842415

3M

Safety Data Sheet

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Document Group: 11-4257-9 Version Number: 62.00
Issue Date: 04/24/15 Supersedes Date: 04/17/15

SECTION 1: Identification

1.1. Product identifier
3M™ Super 77 Classic Spray Adhesive

Product Identification Numbers
62-4437-4920-5, 62-4437-4921-3, 62-4437-4930-4, 62-4437-4935-3, 62-4437-4950-2, 62-4437-4955-1

1.2. Recommended use and restrictions on use

Recommended use
Aerosol Adhesive, Industrial use

1.3. Supplier's details
MANUFACTURER: 3M
DIVISION: Industrial Adhesives and Tapes Division
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Flammable Aerosol, Category 2
Reproductive Toxicity, Category 2
Simple Asphyxiant
Specific Target Organ Toxicity (single exposure), Category 1
Specific Target Organ Toxicity (central nervous system), Category 3.

2.2. Label elements

Signal word
Danger

Symbols
Flame | Exclamation mark | Health Hazard

Pictograms

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3M™ Super 77 Classic Spray Adhesive 842415



Hazard Statements
Flammable aerosol.

May cause drowsiness or dizziness
Suspected of damaging fertility or the unborn child
May displace oxygen and cause rapid suffocation

Causes damage to organs:
cardiovascular system |

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see Notes to Physician on this label).

Storage:
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Hazards not otherwise classified
Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

18% of the mixture consists of ingredients of unknown acute dermal toxicity.
18% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
------------	------------	---------

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3M™ Super 77 Classic Spray Adhesive 842415

Non-Hazardous Components	Trade Secret*	15 - 40 Trade Secret *
Hydrotreated light asphalt (petroleum)	64742-49-0	10 - 30 Trade Secret *
Cyclohexane	110-82-7	10 - 30 Trade Secret *
Propane	74-98-6	7 - 13 Trade Secret *
Isobutane	75-28-5	7 - 13 Trade Secret *
Dimethyl ether	115-10-6	7 - 13 Trade Secret *
Hexane	110-54-3	< 1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. Get medical attention.

Skin Contact:
Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Collect as much of the spilled material as possible using non-sparking tools. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Hexane	110-54-3	ACGIH	TWA: 50 ppm	Skin Notation
Hexane	110-54-3	OSHA	TWA: 1800 mg/m ³ (500 ppm)	
Cyclohexane	110-82-7	ACGIH	TWA: 100 ppm	
Cyclohexane	110-82-7	OSHA	TWA: 1050 mg/m ³ (300 ppm)	
Dimethyl ether	115-10-6	AIHA	TWA: 1880 mg/m ³ (1000 ppm)	
Dimethyl ether	115-10-6	CMRG	TWA: 1000 ppm	
Hydrocarbon light asphtha (petroleum)	64742-49-0	CMRG	TWA: 50 ppm	
Propane	74-98-6	ACGIH	Limit value not established.	
Propane	74-98-6	OSHA	TWA: 1800 mg/m ³ (1000 ppm)	
Isobutane	75-28-5	ACGIH	STEL: 1000 ppm	
Natural gas	75-28-5	ACGIH	Limit value not established.	

ACGIH: American Conference of Governmental Industrial Hygienists
 AHA: American Industrial Hygiene Association
 CMRG: Chemical Manufacturer's Recommended Guidelines

Autoignition temperature
 Decomposition temperature
 Viscosity
 Hazardous Air Pollutants
 Volatile Organic Compounds
 Heat of Combustion
 Solids Content

No Data Available
 Not Applicable
 Not Applicable
 <=1 % weight [Test Method: Calculated]
 75 % [Test Method: calculated per CARB title 2]
 <=13.3 kJ/g
 15 - 40 %

SECTION 10: Stability and reactivity**10.1. Reactivity**

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Substance
 None known

Condition

Refer to section 5.2 for hazardous decomposition products during combustion

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2. If specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose

OSHA: United States Department of Labor - Occupational Safety and Health Administration
 TWA: Time-Weighted Average
 STEL: Short Term Exposure Limit
 CEIL: Ceiling

8.2. Exposure controls**8.2.1. Engineering controls**

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
 Safety Glasses with side shields

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
 Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****General Physical Form:**

Gas

Odor, Color, Grade:

Odor threshold

pH

Melting point

Flash Point

Evaporation rate

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapor Density

Density

Specific Gravity

Solubility in Water

Solubility non-water

Partition coefficient: n-octanol/water

Gas

light cream colored, sweet fruity odor

No Data Available

Not Applicable

No Data Available

-12.00 °F [Test Method: Taghlabuc Closed Cup]

1.90 [Ref Std: ETHER-1]

Flammable Aerosol: Category 2.

Approximately 1.5 % volume

Approximately 8.6 % volume

2.97 [Ref Std: AIR-1]

0.697 g/ml

0.697 [Ref Std: WATER-1]

Nil

No Data Available

No Data Available

and throat pain.

May cause additional health effects (see below)

Skin Contact:

Prolonged or repeated exposure may cause:

Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea

May cause additional health effects (see below)

Additional Health Effects:**Single exposure may cause target organ effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification

Acute Toxicity	Route	Species	Value
Overall product	Dermal	Rat	No data available, calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor (4 hours)	Rat	No data available, calculated ATE > 50 mg/l
Overall product	Ingestion	Rabbit	No data available, calculated ATE > 5,000 mg/kg
Hydrocarbon light asphtha (petroleum)	Dermal	Rat	LD50 > 3,160 mg/kg
Hydrocarbon light asphtha (petroleum)	Inhalation-Vapor (4 hours)	Rat	LC50 > 14.7 mg/l
Hydrocarbon light asphtha (petroleum)	Inhalation	Rat	LD50 > 3,000 mg/kg
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 4,200 mg/kg
Non-Hazardous Components	Ingestion	Rat	LD50 estimated to be 2,000 - 5,000 mg/kg
Dimethyl ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm

Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hexane	Inhalation: Vapor (4 hours)	Rat	LC50 1.70 mg/l
Hexane	Ingestion	Rat	LD50 > 21,700 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product		Minimal irritation
Hydrotreated light naphtha (petroleum)	Rabbit	Irritant
Isobutane	Professional judgement	No significant irritation
Propene	Rabbit	Minimal irritation
Cyclohexane	Rabbit	Mild irritant
Non-Hazardous Components	Professional judgement	Minimal irritation
Hexane	Human and animal	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Hydrotreated light naphtha (petroleum)	Rabbit	Mild irritant
Isobutane	Professional judgement	No significant irritation
Propene	Rabbit	Mild irritant
Cyclohexane	Rabbit	Mild irritant
Hexane	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Hydrotreated light naphtha (petroleum)	Guinea pig	Not sensitizing
Hexane	Human	Not sensitizing

Respiratory Sensitization

For the component components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Hydrotreated light naphtha (petroleum)	In Vitro	Not mutagenic
Isobutane	In Vitro	Not mutagenic
Propene	In Vitro	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Dimethyl ether	In Vitro	Not mutagenic
Dimethyl ether	In vivo	Not mutagenic
Hexane	In Vitro	Not mutagenic
Hexane	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Hydrotreated light naphtha (petroleum)	Inhalation	Mouse	Some positive data exist, but the data are not

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Dimethyl ether	Inhalation	central nervous system depression	Key cause drowsiness or disorientation	animal	LOAEL 10,000 ppm	30 minutes
Dimethyl ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Hexane	Inhalation	central nervous system depression	Key cause drowsiness or disorientation	Human	NOAEL Not available	not available
Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24.6 mg/l	8 hours

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,500 ppm	13 weeks
Cyclohexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	All data are negative	Rat	NOAEL 9.6 mg/l	30 weeks
Dimethyl ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 20,000 ppm	30 weeks
Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
Hexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 months
Hexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.76 mg/l	6 months
Hexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 35.2 mg/l	13 weeks
Hexane	Inhalation	auditory system; immune system; eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	heart; skin; endocrine system	All data are negative	Rat	NOAEL 1.76 mg/l	6 months
Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.140 mg/kg/day	90 days
Hexane	Ingestion	endocrine system; hematopoietic system; liver; immune system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	13 weeks

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Dimethyl ether	Inhalation	Rat	Not sufficient for classification
Hexane	Dermal	Mouse	Not sensitizing
Hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Cyclohexane	Inhalation	Not toxic to female reproduction	Rat	NOAEL 24 mg/l	2 generations
Cyclohexane	Inhalation	Not toxic to male reproduction	Rat	NOAEL 34 mg/l	2 generations
Cyclohexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 6.9 mg/l	2 generations
Dimethyl ether	Inhalation	Not toxic to female reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	Not toxic to male reproduction	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	Not toxic to development	Rat	NOAEL 40,000 ppm	during organogenesis
Hexane	Ingestion	Not toxic to development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
Hexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 9.7 mg/l	during gestation
Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1.140 mg/kg/day	90 days
Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 132 mg/l	28 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Hydrotreated light naphtha (petroleum)	Inhalation	central nervous system depression	May cause drowsiness or disorientation		NOAEL Not available	
Hydrotreated light naphtha (petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or disorientation	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	All data are negative	Mouse	NOAEL Not available	
Propene	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
Propene	Inhalation	central nervous system depression	May cause drowsiness or disorientation	Human	NOAEL Not available	
Propene	Inhalation	respiratory irritation	All data are negative	Human	NOAEL Not available	
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or disorientation	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	

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		kidney and/or bladder			
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Aspiration Hazard

Name	Value
Hydrotreated light naphtha (petroleum)	Aspiration hazard
Cyclohexane	Aspiration hazard
Hexane	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/container in accordance with the local/regional/national/international regulations

Dispose of waste product in a permitted industrial waste facility. The facility should be equipped to handle gaseous waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/TransportInfo> or call 1-800-364-3577 or 651-737-6501

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Inherent	C.A.S. No.	% by Wt
Cyclohexane	110-82-7	10 - 30

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15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information**NFPA Hazard Classification**Health: 2 Flammability: 4 Instability: 0 Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 2 Flammability: 4 Physical Hazard: 0 Personal Protection: X - See PPE section.

Hazardous Material Identification System (HMIS & III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS & III ratings are to be used with a fully implemented HMIS & III program. HMIS & is a registered mark of the American Coatings Association (ACA).

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MATERIAL SAFETY DATA SHEET

MSDS No. 028-0910-01

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ECCOSTOCK® CAT 12-2H
DESCRIPTION: Water-based Thermoplastic Compound
INTENDED USE: Accessory
COMPANY NAME: Emerson & Cuming Microwave Products, Inc.
ADDRESS: 28 York Ave, Randolph, MA 02368
EMERGENCY PHONE NUMBER: CHEMTREC USA: 1-800-424-9300
 INTERNATIONAL: 703-527-3887 (COLLECT)
 Elizabeth Sinkiewicz
 Production Manager
 781-437-1731
CONTACT (TITLE):
DATE OF MSDS REVISION: 09-19-2011

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

ELEMENT	CAS NUMBER	WEIGHT PERCENT	OSHA PEL* (mg/m³)	
			TWA	STEL
Pigments & Modifiers	NE	< 5%	NE	NE
Trimethylolpropane/Adipic Acid Polymer	NE	70 - 80%	NE	NE
Trimethylolpropane	77-99-6	10 - 15%	NE	NE
Adipic Acid	124-04-9	< 5%	NE [5]	NE
Silicone Resin	NE	< 5%	NE	NE

*ACGIH TLVs different from OSHA PELs are shown in brackets. NE = Not Established.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Do not inhale, especially during elevated temperature processing.
POTENTIAL HEALTH EFFECTS: Eye and skin irritant.
 Date: 9/19/11 1 of 6 Doc: CAT 12-2H (9/19/11)

INHALATION:

Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely, due to the low volatility of this product.

Trimethylolpropane. May cause respiratory tract irritation. May be harmful if inhaled.

Adipic Acid. Excessive concentrations of dusts of this material have been noted to cause respiratory tract irritation including coughing, sneezing, and blood-tinged mucus.

INGESTION:

Harmful if swallowed.

Trimethylolpropane. May cause irritation of the digestive tract.
Adipic Acid. Generally nontoxic if swallowed based on toxicity studies. Significant adverse health effects are not expected to develop if small amounts (less than a mouthful) are swallowed.

SKIN:

May cause slight skin irritation.

Trimethylolpropane. Harmful if absorbed through the skin.
Adipic Acid. Generally nonirritating and nontoxic based on toxicity studies.

EYES:

Contains materials irritating to the eyes. Symptoms may include blurred vision, burning sensation and tearing.
Trimethylolpropane. Eye irritant.
Adipic Acid. This material may cause pain, redness, and tearing.

CHRONIC HEALTH EFFECTS:

None known.

TARGET ORGANS:

Skin, eyes and respiratory organs during elevated temperature processing.

CARCINOGENICITY:

NTP NO, IARC NO, OSHA NO

CONDITIONS AGGRAVATED BY EXPOSURE:

No data is available for this product mixture.

SECTION 4. EMERGENCY AND FIRST AID MEASURES

INHALATION: Remove victim to fresh air. Provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get immediate medical attention.
INGESTION: Dilute by giving plenty of water to drink, if victim is conscious and alert. Never give anything by mouth to a drowsy, unconscious, or convulsing person. Get immediate attention.
SKIN: Remove any contaminated clothing and flush the affected area of the skin thoroughly with plenty of water. Follow by washing with soap and water. Get medical attention if irritation persists.
EYES: Flush eyes thoroughly with water for at least 15 minutes while holding eyelids open. Get medical attention.
MEDICAL TREATMENT: Treat symptoms and eliminate overexposure.

SECTION 5. FIRE FIGHTING MEASURES

Date: 9/19/11 2 of 6 Doc: CAT 12-2H (9/19/11)

Flash Point: > 200°F
Explosive Limits: Not determined
Extinguishing Media: Use carbon dioxide, dry chemical, foam, water fog.
Special Firefighting Procedures: Firefighters/rescue personnel should wear positive pressure self contained breathing apparatus and full protective equipment. Cool exposed containers with water to prevent pressure buildup. If large quantities of material are involved, evacuate area and fight fire from a safe distance.
Unusual Fire/Explosion Hazards: Decomposition and combustion products may be toxic. Closed containers may violently rupture under fire conditions.
NFPA and HMIS Rating: Flammability: NE Health: NE
 Reactivity: NE Special Hazards: NE
Autoignition Temperature: No data available for this product.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill response operations must be conducted in accordance with the provisions of OSHA 29 CFR 1910.120. Review the entire MSDS before proceeding with spill response.

Small Spills: Activate available exhaust ventilation equipment in the immediate spill area. Wipe up or absorb spilled material with vermiculite or other similar material. Wash area with soapy water; area will be slippery until cleaned. Collect absorbed material and water rinses in appropriate containers. Dispose of in accordance with current Federal, State, and local regulations.

Large Spills: Limit access to the spill area. Shut off source of the release if this can be done without risk of injury. Activate available exhaust ventilation systems in the area. Dike area to contain spill and prevent releases to sewers or other waterways. Collect spilled material for salvage/disposal. Apply absorbent material to soak up residue. Wash area with soapy water; area will be slippery until cleaned. Prevent runoff from entering waterways. Transfer absorbed material and water rinses to appropriate waste containers. Dispose of in accordance with Federal, State and local regulations.

SECTION 7. HANDLING AND STORAGE

The recommendations described in this section are provided as general guidance for minimizing exposure when handling this product. Because usage conditions will vary depending on customer application, specific safe handling procedures should be developed by a person knowledgeable in the intended usage conditions and equipment. Employees must be properly trained in safe handling of this product prior to use.

Personal Protection: This product can cause eye irritation. Prevent eye contact through the use of chemical safety glasses, splash-proof chemical goggles, or face shield with goggles. This product can cause skin irritation. Wear appropriate protective gloves to minimize skin contact. If necessary, a proper chemical-resistant apron and additional impervious clothing should be used to minimize skin contact and prevent contamination of clothing. Normal work clothing should be washed before re-use. Wash hands and face thoroughly after handling this product and before eating, drinking or smoking. Emergency eye wash facilities and safety shower should be available.

Date: 9/19/11 3 of 6 Doc: CAT 12-2H (9/19/11)

Ventilation Recommendations and Respiratory Protection:

Provide effective mechanical exhaust ventilation to draw vapors, mists or fumes generated during processing away from the worker and prevent routine inhalation. This is necessary especially during elevated temperature processing.

Storage:

Store in a cool, dry location with adequate ventilation. Keep container tightly sealed when not in use. Keep away from open flames and heat sources. Consult the product Technical Bulletin for detailed storage information.

SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS:

Provide effective mechanical exhaust ventilation to draw vapors, mists or fumes generated during processing away from the worker and prevent routine inhalation. This is necessary especially during elevated temperature processing.

RESPIRATORY PROTECTION:

Inhalation hazard at room temperature is unlikely, due to the low volatility of this product. See Ventilation Controls above.

PROTECTIVE GLOVES:

Wear appropriate protective gloves to minimize skin contact.

EYE PROTECTION:

Prevent eye contact through the use of chemical safety glasses, splash-proof chemical goggles, or face shield with goggles.

OTHER PROTECTIVE EQUIPMENT:

If necessary, a proper chemical-resistant apron and additional impervious clothing should be used to minimize skin contact and prevent contamination of clothing. Normal work clothing should be washed before re-use.

OTHER REQUIREMENTS:

Wash hands and face thoroughly after handling this product and before eating, drinking or smoking. Emergency eye wash facilities and safety shower should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Red Viscous Liquid
Odor:	Not determined
Volatile Organic Compound content:	Not determined
Physical State:	Liquid
Boiling Point:	Not determined
Vapor Pressure:	Negligible
Evaporation Rate:	Not determined
Specific Gravity:	1.0 - 1.2
Vapor Density:	Not determined
Solubility in Water:	Soluble

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SECTION 10. STABILITY AND REACTIVITY

Stability:

Product is stable under normal handling and storage conditions. However, review reactivity data concerning conditions to avoid and incompatible substances.

Incompatibility:

Direct contact with strong oxidizers, acids, bases.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, oxides of silicon, and other organic substances may be formed during combustion. The chemical nature and quantity of decomposition by-products will vary widely depending on the conditions of combustion.

Hazardous Polymerization:

ND

Reactivity:

Stable under normal conditions. See incompatible substances (above).

SECTION 11. TOXICOLOGICAL INFORMATION

Trimethylolpropane:

Acute oral toxicity (LD50): 13700 mg/kg [Mouse]

Adipic Acid:

LD50: 1900 mg/kg [Mouse]

SECTION 12. ECOLOGICAL INFORMATION

Adipic Acid:

Adipic acid may be released into the environment in various waste streams from its production and use in the manufacture of synthetic fibers, plasticizers, resins, plastics, and as a food acidulant. If released to the atmosphere, adipic acid is expected to exist in both the particulate and vapor phases in the ambient atmosphere based on an extrapolated vapor pressure of 7.4X10⁻⁷ mm Hg at 30 deg C. Vapor-phase adipic acid will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals with an estimated half-life of 2.9 days. Particulate-phase adipic acid may be physically removed from the atmosphere by wet and dry deposition. If released to soil, adipic acid is expected to have very high mobility based on an estimated K_{oc} of 26. Volatilization of adipic acid from wet and dry soil surfaces is not expected to occur based on an estimated Henry's Law constant of 4.7X10⁻¹² atm-cu m/mole and this compound's extrapolated vapor pressure. Biodegradation of adipic acid in both soil and water is expected to be an important fate process, 90% degradation occurred after 7 days in a river die-away test, 84% of adipic acid's carbon content was converted to carbon dioxide in soil biometer flasks after 30 days. If released into water, adipic acid is not expected to adsorb to suspended solids and sediments in the water column based on its estimated K_{oc}. The potential for bioconcentration of adipic acid in aquatic organisms is low based on an estimated BCF of 0.68. Volatilization of adipic acid from water surfaces is not expected to be an important fate process based on a pK_a of 4.4 and the estimated Henry's Law constant for this compound. Hydrolysis is not expected to be an important process due to the lack of hydrolyzable functional groups.

SECTION 13. DISPOSAL CONSIDERATIONS

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Maximize product recovery for reuse or recycling. Waste must be disposed of in accordance with federal, state and local environmental control regulations. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24). Use may also generate liquid wastes with metal concentrations in excess of those permitted through pretreatment or direct discharge NPDES requirements. Appropriate analyses should be conducted to ensure compliance with existing wastewater permits.

SECTION 14. TRANSPORT INFORMATION

DOT Hazardous Material Description:	Not applicable
Proper Shipping Name:	Not applicable
Hazard Class:	Not applicable
ID Number:	Not applicable
Packing Group:	Not applicable
Canadian Transportation of Dangerous Goods Classification:	Not applicable

SECTION 15. REGULATORY INFORMATION

TSCA Status:	All compounds of this product are listed in the EPA Toxic Substance Control Act Inventory.
SARA Status:	This product does not contain any substances regulated by the SARA Section 313 amendments to RCRA.

SECTION 16. OTHER INFORMATION

Abbreviations NA = Not Applicable NE = Not Established ND = Not Determined
ppm = Parts per Million mg/m³ = Milligrams Per Cubic Meter
C = Ceiling Concentration STEL = Short Term Exposure Limit

Safety Information and additional MSDS 781-961-9600

DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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MATERIAL SAFETY DATA SHEET

MSDS No. 015-0910-01

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	ECCOSTOCK® FPH
DESCRIPTION:	Two part, foam-in-place resin (low loss/low dielectric foam)
INTENDED USE:	Load Loss/Low Dielectric Foam Product - Two-part, foam-in-place resin equivalent of ECCOSTOCK® SH.
COMPANY NAME:	Emerson & Cuming Microwave Products, Inc.
ADDRESS:	28 York Ave, Randolph, MA 02368
EMERGENCY PHONE NUMBER:	CHEMTREC USA: 1-800-424-9300 INTERNATIONAL: 703-527-3887 (COLLECT)
CONTACT (TITLE):	Elizabeth Sinkiewicz Production Manager 781-437-1731
DATE OF MSDS REVISION:	09-19-2011

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

ELEMENT	CAS NUMBER	WEIGHT PERCENT	OSHA PEL* (mg/m ³)	
			TWA	STEL
Toluene-2,4-Diisocyanate (TDI)	584-84-9	55-65%	NE [0.036]	NE [0.14]
Isocyanate Terminated Polymer	68610-40-2	35-45%	NE	NE

*ACGIH TLVs different from OSHA PELs are shown in brackets. NE = Not Established.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	Danger: Poison Seek medical attention if inhaled or ingested. Contains Toluene Diisocyanate. Contact with eyes and skin results in serious burns. Inhalation of vapors causes severe irritation to lungs. Pulmonary edema may occur.
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POTENTIAL HEALTH EFFECTS: Pulmonary edema may occur. Pulmonary sensitization can occur in some individuals leading to asthma-like spasms of the bronchial tubes and difficulty breathing. Individuals with a history of respiratory illness, asthmatic conditions, eye damage or TDI sensitization should not be exposed to this product. TDI is included in the NTP Annual Report on carcinogens. Preliminary results from a TDI health study indicate that overexposure to a respiratory irritant (chlorine or phosgene for example), resulting in lower respiratory tract symptoms could increase the risks of developing asthma-like reactions from subsequent TDI exposure.

INHALATION: TDI is severely toxic to the respiratory system and to the mucous membranes. Inhalation of TDI vapors at low concentrations can cause respiratory and mucous membrane irritation, tightness of the chest, coughing, headache, shortness of breath, difficulty in breathing and reduction in lung function. Full development of symptoms may be delayed for several hours after an overexposure has taken place. Extensive exposure to TDI vapors by inhalation can cause bronchitis, bronchial spasm, pulmonary edema.

INGESTION: If swallowed, TDI can cause irritation and corrosive action in the mouth, stomach and digestive tract.

SKIN: TDI is a skin irritant. Prolonged contact with skin can cause reddening, swelling, blistering, and in some individuals skin sensitization and dermatitis.

EYES: TDI is severely irritating to eyes. Corneal injury can occur which can be slow to heal.

CHRONIC HEALTH EFFECTS: Overexposure to TDI has resulted in decreased pulmonary function and fibrosis in workers. Oral gavage administration of TDI in corn oil to rats and mice for two years resulted in an increased incidence of tumors. Six hour daily inhalation exposures to rats and mice of 0.05 and 0.15 ppm TDI for two years did not produce tumors. Since inhalation is the usual route of human exposure, the carcinogenic potential of TDI to humans has not been established. However, TDI is included in the NTP list of substances "reasonably anticipated" to be carcinogenic in humans.

TARGET ORGANS: Skin, eyes, respiratory system

CARCINOGENICITY: Carcinogenic effects: IARC Carcinogen List - YES
NTP Carcinogen List - YES
OSHA Carcinogenic List - NO

CONDITIONS AGGRAVATED BY EXPOSURE: TDI is a pronounced allergic sensitizer. Therefore much lower levels of exposure can cause severe problems in persons who have been sensitized. Symptoms can be immediate or delayed, and include chest tightness, wheezing, coughing, shortness of breath, or asthmatic attacks. Persons with asthma-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates.

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SECTION 4. EMERGENCY AND FIRST AID MEASURES

INHALATION: If a person breathes large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

INGESTION: If swallowed, do not induce vomiting. Get immediate medical attention.

SKIN: If this chemical contacts the skin, immediately wash the contaminated skin with soap and water. If this chemical penetrates the clothing, immediately remove the clothing, wash the skin with soap and water, and get medical attention promptly.

EYES: If this chemical contacts the eyes, immediately wash (irrigate) the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately.

MEDICAL TREATMENT: Treat symptoms and eliminate overexposure.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point: Not established

Explosive Limits: Not established

Extinguishing Media: Use carbon dioxide, dry chemical, or foam (alcohol resistant). Use water fog for cooling purposes only. Spray fire-exposed containers with water to keep them cool.

Special Firefighting Procedures: Firefighters/rescue personnel should wear positive pressure self contained breathing apparatus and full protective equipment. Cool exposed containers with water to prevent pressure buildup. If large quantities of material are involved, evacuate area and fight fire from a safe distance.

Unusual Fire/Explosion Hazards: During combustion and decomposition, irritating and toxic gases/vapors including nitrogen oxides and isocyanate vapors will be generated. This material contains isocyanate which is highly reactive with water or steam. Keep dry. Water or moist air should never be in contact with this material in a closed container since CO₂ will be liberated and generate high internal gas pressure.

NFPA and HMIS Rating: Flammability: 1 Health: 4
Reactivity: 1 Special Hazards: none

Autoignition Temperature: Not established

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill response operations must be conducted in accordance with the provisions of OSHA 29 CFR 1910.120. Review the entire MSDS before proceeding with spill response.

Small Spills: Neutralize all residues (must be vented) with a neutralizing solution, 10% isopropyl alcohol, 85% water, 5% ammonia.

Large Spills: Dike spill and take up material with sand, earth or other absorbent. Neutralize all residues.

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(must be vented) with a neutralizing solution, 10% isopropyl alcohol, 85% water, 5% ammonia. Transfer to steel drums.

NOTE: DO NOT BANG UP DRUMS OR CONTAINERS when neutralizing residues because of CO₂ generation and high pressure formation.

SECTION 7. HANDLING AND STORAGE

Storage: Store below 120° Fahrenheit. Protect from moisture, light and extreme heat. Consult the product Technical Bulletin for detailed storage information.

Engineering Controls: Good general ventilation should be sufficient to control airborne levels.

SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Monitor the workplace to be sure that OSHA PEL levels are not exceeded. Good ventilation is necessary to avoid inhalation.

RESPIRATORY PROTECTION: Use NIOSH-approved respirator or air supply respirator (positive pressure) at all times when Toluene diisocyanate vapors may be present at levels near or at the OSHA PEL level. Monitor the workplace to be sure that OSHA PEL levels are not exceeded.

PROTECTIVE GLOVES: Wear Neoprene, butyl rubber or other solvent-resistant gloves with gauntlets to give maximum skin protection.

EYE PROTECTION: Wear side-shield chemical safety goggles or full face shield.

OTHER PROTECTIVE EQUIPMENT: Wear disposable protective coveralls to keep material off skin and clothing. Discard disposable protective coveralls every day. If clothing becomes wet or contaminated with product, remove clothing immediately. Have employee shower and scrub down thoroughly with soap and water immediately and at the end of the work shift. Any clothing that is contaminated with TDI should not be re-worn. It should either be discarded, or the TDI removed from the clothing. If the clothing is to be laundered or otherwise cleaned, the person performing the operation must be informed of the hazardous properties of Toluene diisocyanate.

OTHER REQUIREMENTS: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substances; this is irrespective of the recommendation involving the wearing of eye protection.

Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure. [Note: It is intended that these facilities provide a sufficient quantity or flow of water to quickly remove the substance from anybody areas likely to be exposed. The actual determination of what constitutes an adequate quick drench facility depends on the specific circumstances. In certain instances, a deluge shower should be readily available, whereas in others, the availability of water from a sink or hose could be considered adequate.]

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Water white to light amber

Odor: Pungent

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Volatile Organic Compound content: Not established

Physical State: Liquid

Boiling Point: Not established

Vapor Pressure: Not established

Evaporation Rate: Not established

Specific Gravity (water = 1): 1.1

Vapor Density: Not established

Solubility in Water: Reacts

SECTION 10. STABILITY AND REACTIVITY

Stability: Product is stable under normal handling and storage conditions. However, review reactivity data concerning conditions to avoid and incompatible substances.

Incompatibility: Avoid contamination with water, steam, moist air, alcohols, amines, other active hydrogen compounds and strong bases. The free isocyanate in this product will react readily with water to generate CO₂. In a closed container, high internal gas pressures will be generated which can rupture the container.

Hazardous Decomposition Products: Will not occur in normal storage. Combustion will produce aromatic or aliphatic fragments, Toluene diisocyanate and other isocyanate vapors, CO, CO₂ and oxides of nitrogen.

Hazardous Polymerization: Polymerization can occur if product is contaminated with water or with certain catalysts for isocyanate reactions. Also, polymerization can occur if product is exposed to excessive heat.

Reactivity: Normally stable, but becomes very reactive at high temperatures and pressures.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological Data for Toluene-2,4-Diisocyanate (TDI):

TDI is very toxic, and may be fatal, if inhaled. Skin, eye and respiratory irritant. Inhalation or skin contact may cause sensitization. Limited evidence of carcinogenicity. Note that this material is an important cause of occupational asthma.

Oral gavage administration of TDI in corn oil to rats and mice for two years resulted in an increased incidence of tumors. Six hour daily inhalation exposures to rats and mice of 0.05 and 0.15 ppm TDI for two years did not produce tumors. Since inhalation is the usual route of human exposure, the carcinogenic potential of TDI to humans has not been established. However, TDI is included in the NTP list of substances "reasonably anticipated" to be carcinogenic in humans.

Acute Oral Toxicity
LD50: 4,130-5,110 mg/kg (Rat, Male/Female)

Acute Inhalation Toxicity

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LC50: 66 ppm (480 mg/m³), 1 hour (Rat, Male/Female)
LC50: 49-50.4 ppm (350-360 mg/m³), aerosol, 4 h (Rat, Male/Female)
RD50: 2.12 ppm, vapor 3 hour (Rat, Male)
Acute Dermal Toxicity
LD50: >9,400 mg/kg (Rabbit, Male/Female)

SECTION 12. ECOLOGICAL INFORMATION

No data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Note: Data listed is for TDI

Waste Disposal: Incinerate waste TDI in a RCRA-permitted facility.
Container Disposal: Empty containers (as defined by RCRA, Section 261.7 and applicable state regulations) should be neutralized before leaving the generator facility and punctured or crushed to prevent reuse. TDI is listed as a hazardous waste and requires special handling for disposal. Also, under no circumstances should empty drums be burned or cut open with a gas or electric torch as toxic decomposition products may be liberated.

SECTION 14. TRANSPORT INFORMATION

DOT Hazardous Material Description: Not available
Proper Shipping Name: Toluene Diisocyanate
Hazard Class: 6.1
ID Number: UN2078
Packing Group: PGII
Canadian Transportation of Dangerous Goods Classification: 156

SECTION 15. REGULATORY INFORMATION

TSCA Status: All compounds of this product are listed in the EPA Toxic Substance Control Act Inventory
SARA Section 313 Information: The components listed in Section 2 that are substances regulated by the SARA Section 313 amendments to RCRA are as follows: Toluene-2,4-Diisocyanate (584-84-9)

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
DSCG (EEC): R26-Very toxic by inhalation. R38-Irritating to skin. R41-Risk of serious damage to eyes. R45-May cause cancer.

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SECTION 16. OTHER INFORMATION

DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Abbreviations NA = Not Applicable NE = Not Established ND = Not Determined
ppm = Parts per Million mg/m³ = Milligrams Per Cubic Meter
C = Ceiling Concentration STEL = Short Term Exposure Limit

Safety Information and additional MSDS: 781-961-9600

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SAFETY DATA SHEET Klean-Strip Acetone

Page: 1
Printed: 04/15/2015
Revision: 04/15/2015
Supersedes Revision: 03/26/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Klean-Strip Acetone
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Web site address: www.wmbarr.com
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
W.M. Barr Customer Service (800)398-3892
Intended Use: Paint, stain, and varnish thinning
Synonyms: CAC18, DAC18, GAC18, GAC182, QAC18, QAC18KM, QAC18A, PA12270
Additional Information: This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

2. HAZARDS IDENTIFICATION

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2
Specific Target Organ Toxicity (single exposure), Category 3



GHS Signal Word: Danger
GHS Hazard Phrases: H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
GHS Precaution Phrases: P233: Keep container tightly closed.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P243: Take precautionary measures against static discharge
P242: Use only non-sparking tools
P284: Wash hands thoroughly after handling.
P261: Avoid breathing gas/mist/vapors/spray
P271: Use only outdoors or in a well-ventilated area
GHS Response Phrases: P370+378: In case of fire, use dry chemical to extinguish.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists, get medical advice/attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.
GHS Storage and Disposal: P403+235: Store in cool/well-ventilated place

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SAFETY DATA SHEET Klean-Strip Acetone

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Phrases:

P501: Dispose of contents/container according to local, state and federal regulations.
P403+233: Store container tightly closed in well-ventilated place - If product is as volatile as to generate hazardous atmosphere
P405: Store locked up.

Hazard Rating System:

HEALTH	2
FLAMMABILITY	3
PHYSICAL	0
PPE	X



HMIS:

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations
Potential Health Effects (Acute and Chronic): Inhalation Acute Exposure Effects:
Vapor harmful. May cause dizziness, headache, watering of eyes, irritation of respiratory tract, drowsiness, nausea, and numbness in fingers, arms and legs. Inhalation of high vapor concentrations can cause central nervous system depression and narcosis. May lead to unconsciousness.

Skin Contact Acute Exposure Effects:
May cause skin irritation. Liquid is absorbed readily and can transport other toxins into the body. Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

Eye Contact Acute Exposure Effects:
This material is an eye irritant. Causes itching, burning, redness and tearing. May cause corneal injury.

Ingestion Acute Exposure Effects:
Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. May cause irritation of the gastrointestinal tract. May cause systemic poisoning with symptoms paralleling those of inhalation.

Chronic Exposure Effects:
Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause weakness, fatigue, skin irritation, and numbness in hands and feet.

May cause target organ or system damage to the respiratory system, nervous system, kidney, blood system, and liver.

Target Organs:
Eyes, skin, respiratory system, central nervous system, heart

Medical Conditions Generally Skin, eye, respiratory and asthma, cardiac irregularities

Aggravated By Exposure:

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTCS #
67-64-1	Acetone (2-Propanone)	100.0 %	AL3150000

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4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Skin:

Immediately begin washing the skin thoroughly with large amounts of water and mild soap, if available, while removing contaminated clothing. Seek medical attention if irritation persists.

Eyes:

Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes, then seek immediate medical attention.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Ingestion:

If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician, hospital emergency room, or poison control center immediately. Never give anything by mouth to an unconscious person.

Signs and Symptoms Of Exposure:

Primary Routes of Exposure:
Inhalation, ingestion, and dermal.

Note to Physician:

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

Flash Pt:

Class IB

0 00 F Method Used: TAG Closed Cup

Explosive Limits:

LEL: 2.5 % at 77.0 F UEL: 13.0 % at 77.0 F

Autoignition Pt:

869 00 F

Suitable Extinguishing Media:

Use carbon dioxide, dry powder, or alcohol-resistant foam.

Fire Fighting Instructions:

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Flammable Properties and Hazards:

Extremely Flammable! Vapors are heavier than air and may spread along floors. Forms or accumulates static electricity, may cause fire or explosion.

Acetone/water solutions that contain more than 2.5% acetone have flash points. When the acetone concentration is greater than 8% by weight in a closed container, it would be within the flammable range and cause fire or explosion if a source of ignition were introduced.

Do not spread this product over a large surface area because the fire and health safety risks will increase dramatically.

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6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Vapors may cause flash fire or ignite explosively.

Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources, keep flames, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways and bodies of water. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.

Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills: Dike far ahead of spill for later disposal.

Waste Disposal: Dispose in accordance with applicable local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions To Be Taken In Handling:

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

Precautions To Be Taken In Storing:

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near any source of heat or flame, furnace areas, pilot lights, stoves, etc. Do not reuse this container. Use product within one year of purchasing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
67-64-1	Acetone (2-Propanone)	PEL: 1000 ppm	TLV: 500 ppm STEL: 750 ppm	No data
Respiratory Equipment (Specify Type):	For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.			
	For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.			
	A dust mask does not provide protection against vapors.			
Eye Protection:	Splash goggles.			

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Protective Gloves:

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber, natural rubber, and neoprene may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing:

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Engineering Controls (Ventilation etc.):

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering - STOP - ventilation is inadequate. Leave area immediately and move to fresh air.

Work/Hygiene/Maintenance Practices:

Wash hands thoroughly after use and before eating, drinking, smoking, or using the restroom.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:

[] Gas [X] Liquid [] Solid

Appearance and Odor:

Clear colorless liquid with a characteristic ketone odor. Odor may be described as a sweet pungent odor.

Melting Point:

No data.

Boiling Point:

> 133 00 F

Autoignition Pt:

869 00 F

Flash Pt:

0 00 F Method Used: TAG Closed Cup

Explosive Limits:

LEL: 2.5 % at 77.0 F UEL: 13.0 % at 77.0 F

Specific Gravity (Water = 1):

0.789

Density:

6.572 LB/GA at 77.0 F

Vapor Pressure (vs. Air or Hg):

213 MM HG at 77.0 F

Vapor Density (vs. Air = 1):

No data

Evaporation Rate:

No data

Solubility in Water:

Complete

Issued to W.M. Barr and Company: MRS MSDS, (c) A.V. Systems, Inc.

GHS format

SAFETY DATA SHEET
Klean-Strip AcetonePage: 6
Printed: 04/15/2015
Revision: 04/15/2015
Supersedes Revision: 03/28/2015

Percent Volatile: 100.0 % by weight.

10. STABILITY AND REACTIVITY

Stability:

Unstable [] Stable [X]

Conditions To Avoid - Instability:

No data available

Incompatibility - Materials To Avoid:

Avoid contact with acids, aldehydes, alkalies, amines, ammonia, oxidizing agents, reducing agents, chlorine compounds.

May form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tetratetroxide, and thioglycol. Strong oxidizers.

Hazardous Decomposition Or Byproducts:

Decomposition may produce carbon monoxide, carbon dioxide, and other asphyxiants.

Possibility of Hazardous Reactions:

Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions:

No data available

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

NEUROTOXICITY: Clinical studies and case reports suggest slight neurological effects, mostly of the subjective type, in individuals exposed to varying concentrations of acetone. In most studies the subjects report discomfort, irritation of the eyes and respiratory passages, mood swings, and nausea following exposure to acetone vapor at concentrations of 500 ppm or higher. The fact that the effects subside following termination of exposure indicates that acetone may be the active compound, rather than a metabolite. Case reports of accidental poisoning also indicate that the effects (e.g., lethargy and drowsiness) are short-lived.

Carcinogenicity/Other Information:

CAS# 67-64-1
Standard Draize Test, Eyes, Species Rabbit, 20 00 MG, Severe Result.
Behavioral: Change in motor activity (specific assay)
Behavioral: Alteration of classical conditioning
- American Journal of Ophthalmology, Ophthalmic Pub Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/Pyr: 29.1363, 1946
ACGIH A4 - Not Classifiable as a Human Carcinogen.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
67-64-1	Acetone (2-Propanone)	n.s.	n.s.	A4	n.s.

12. ECOLOGICAL INFORMATION

No data available

Issued to W.M. Barr and Company: MRS MSDS, (c) A.V. Systems, Inc.

GHS format

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Supersedes Revision: 03/25/2015

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with all applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

D TRANSPORT (US DOT):

DOT Proper Shipping Name: Acetone

DOT Hazard Class:

3

FLAMMABLE LIQUID

UN/NA Number:

UN1090

Packing Group:

II

Additional Transport Information:

The shipper/supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazard Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TR)
67-64-1	Acetone (2-Propanone)	No	Yes 5000 LB	No

This material meets the EPA Hazard Categories defined for SARA Title III Sections 311/312 as indicated:

	[X] Yes	[] No	Acute (Immediate) Health Hazard
	[X] Yes	[] No	Chronic (delayed) Health Hazard
	[X] Yes	[] No	Fire Hazard
	[] Yes	[X] No	Sudden Release of Pressure Hazard
	[] Yes	[X] No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
67-64-1	Acetone (2-Propanone)	CAA HAP, ODC No, CWA NPDES No, TSCA Yes - Inventory, 4 Test; CA PROP. 65 No

16. OTHER INFORMATION

Revision Date: 04/15/2015

Preparer Name: W.M. Barr EHS Department (901)775-0100

Additional Information About No data available

This Product:

Company Policy or Disclaimer:

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

IT Professional Brands

MATERIAL SAFETY DATA SHEET

Prepared: 29 January 2013

Section 1 - Product and Company Identification

Product(s): SCRUBSO Hand Cleaner Towels
Formula: B422
Part Number(s): 42201, 42210, 42225, 42230, 42256, 42260, 42272, 42280

Company Name & Address:

IT Professional Brands

805 E. Old 58 Hwy.
Olathe, KS 66061
800-443-9536 (8 a.m. - 5 p.m. Weekdays, CDT)

Emergency Numbers:

IN CASE OF EMERGENCY, CALL Inforac @ 1-800-535-5053, 24 hrs.
INTERNATIONAL EMERGENCY NUMBER 352-323-3500
Poison Control Center: 1-800-222-1222

Material Safety Data Sheets:

www.itprofessionalbrands.com

Section 2 - Hazards Identification

CAUTION: May cause mild eye or skin irritation.

Potential Health Effects:

EYES: May cause mild eye irritation.

SKIN: May cause mild skin irritation.

INHALATION: Not a likely exposure route.

INGESTION: Not a likely exposure route.

Signs/symptoms of exposure: redness, tearing or burning in eyes. Redness, burning, drying or cracking of skin. Irritation of the throat or stomach, nausea, vomiting, diarrhea if swallowed. Medical conditions generally aggravated by exposure: pre-existing skin conditions such as dermatitis may be adversely affected by this and other oil and grease effective cleaners

HMS Rating Health - 1 Flammability - 0 Reactivity - 0 Personal Protection - None

Section 3 - Composition/Information on Ingredients

Ingredient	CAS Number	Percent Range
Water	7732-18-5	60 - 100
Ethoxylated Alcohols (C12-15 per eth-7)	68131-39-5	1 - 5
Isoparaffin	64742-47-8	0.5 - 1.5
Dimethyl Glutarate	1119-40-0	0.5 - 1.5
Fragrance	Mixture	0.5 - 2

Any substance listed as hazardous by the states of California, Florida, Illinois, Michigan, New Jersey, Ohio, Pennsylvania or Texas is described above if known present in regulated concentrations.

Section 4 - First Aid Measures

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. If irritation persists seek medical attention.

SKIN: None usually required. Material is designed for skin cleansing. If symptoms develop seek medical attention.

INHALATION: Unlikely route as liquid is impregnated on a towel, minimizing exposure via this route. If overexposed move to fresh air. If symptoms develop seek medical attention.

INGESTION: Not a likely exposure route. If a large quantity of liquid is swallowed, do not induce vomiting, call a physician or poison control center immediately.

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Formula: B422

IT Professional Brands

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Section 5 - Fire Fighting Measures

Flashpoint (P100): None to boiling, solution on towel.
Extinguishing Media: Dry chemical, carbon dioxide, foam, fog or water spray.
Special Fire Fighting Procedures: Keep containers cool and vapors down with water spray. Prevent runoff from entering sewers and public waterways.
Hazardous Products of Combustion: Carbon monoxide, carbon dioxide, various hydrocarbons, hydrogen sulfide, sulfur dioxide and soot.

Section 6 - Accidental Release Measures

Small spill: Wipe up small releases with a dry absorbent cloth or other absorbent material.
Large spill: Absorb liquid with vermiculite, absorbent cloth, or other absorbent material. Prevent material from entering sewers and drains. Ventilate area and block traffic. Transfer contaminated material into suitable container for proper disposal.

Section 7 - Handling and Storage

Handling: Do not allow towel contact with eyes. For external use only. Not for use around the mouth or eyes for an extended period of time. Do not smoke while using. Use from original container only and follow label directions carefully. Follow good chemical hygiene practices when handling this material.
Storage: Keep container closed when not in use. Keep away from heat sources. Store in a cool well-ventilated area. Keep out of reach of children. Do not contaminate water, food or feed by use or storage. Keep from freezing.

Section 8 - Exposure Controls/Personal Protection

Engineering controls: Ventilation not usually necessary but should be provided in the event of overexposure.
Exposure limits: Isoparaffin (CAS# 64742-47-8): 152 ppm, Manufacturer's recommendation
Eye protection: None necessary. Do not allow towel to directly contact eyes.
Skin protection: None necessary. Product is designed for direct skin use.
Respiratory protection: Not usually necessary. If vapors are present or irritation is experienced, use NIOSH/MSHA approved respirator.

Section 9 - Physical and Chemical Properties

Appearance and Odor: Colorless liquid with a orange scent saturated onto towels.
pH: 6.0 +/- 0.5
Boiling Point: 212 F
Specific Gravity: 0.995
Vapor Density: >1
Vapor Pressure: No Data
Solubility in Water: Miscible
Evaporation Rate: No Data
Volatile Organic Compounds (VOCs): 0% by weight

Section 10 - Stability and Reactivity

Hazardous Polymerization: This product will not undergo hazardous polymerization.
Hazardous Decomposition or Byproducts: Carbon monoxide, carbon dioxide, hydrogen sulfide, sulfur dioxide and soot.
Chemical Stability: Stable
Incompatible Materials: Strong oxidizers and strong acids

Section 11 - Toxicological Information

Ethoxylated Alcohols, CAS# 68131-39-5
Acute Dermal LD50 <5g/kg, rabbit; Acute Oral LD50 1.8-2.7g/kg, rat

Section 12 - Ecological Information

Ethoxylated Alcohols, CAS# 68131-39-5
96 hr fathead minnow static acute LC50 2.7mg/L, 48 hr Daphnia acute EC50 5.4-7.5 mg/L

Section 13 - Disposal Considerations

Dispose of in accordance with all applicable local, state, and federal regulations.
Waste Information: If this product becomes a waste, it would not be hazardous as defined by RCRA (40CFR261). However the waste should be properly evaluated in case of modification prior to disposal.

Formula: B422

IT Professional Brands

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Section 14 - Transport Information

The following Transportation Information is based on Department of Transportation Regulations found in 49 CFR. If shipping this product by air please refer to International Air Transport Association (IATA) Dangerous Goods Regulations. If shipping this product by ocean please refer to International Maritime Dangerous Goods Regulations (IMDG). To find how to ship this product please refer to the UN# listed below.

UN #	Proper Shipping Description	Hazard Class	Packing Group
DOT Information	None	Not Regulated	None

Marine Pollutants: None

Section 15 - Regulatory Information

US Federal Regulations
Toxic Substances Control Act (TSCA) All ingredients are on the TSCA inventory or exempt from listing
CERCLA RQ
None
SARA 313 Components
None
State and Local Regulations
California Proposition 65
None
NSF Registration Category Code
E4, #138878

Section 16 - Other Information

WARNING! The use of this product is beyond the control of the manufacturer; therefore, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practices. The user must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials. The manufacturer warrants only that this product meets the manufacturer's specifications for such product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AS TO DESCRIPTION, QUALITY, AND MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, PRODUCTIVITY OR ANY OTHER MATTER OF THIS PRODUCT. THE MANUFACTURER SHALL BE IN NO WAY RESPONSIBLE FOR THE IMPROPER USE OF THIS PRODUCT. The sole and exclusive remedy against the manufacturer for breach of warranty shall be reimbursement of the purchase price of the product in the event that a defective condition of the product shall be found to exist. NO OTHER REMEDY (INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE.



MATERIAL SAFETY DATA SHEET

System Three Resins, Inc. 3500 W. Valley Hwy N, Suite 105 Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: 81-Cure Resin PART A WHMIS Classification: D2B
Date of Prep: March 5, 2012 Information: (253) 333-8118
Product Type: Epoxy Resin Mixture Prepared By: J. Barlett
24-Hr. Emergency Phone: CHEMTREC 800-424-9309
HMS Ratings:
Health 2
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Diglycidyl Ether of Bisphenol A (DGEBA)	80-90%	25068-38-6	none established	none established
Benzyl Alcohol	10-20%	100-51-6	none established	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: not applicable
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odour: Colourless liquid with characteristic odour.
Specific Gravity: 1.15
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 300°F
Method: Pensky-Martens Closed Cup
Flammable Limits in Air By Volume: Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Special Firefighting Procedures: When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes may be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable
Incompatibility: Strong oxidizing agents, Lewis and mineral acids.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Products: Oxides of carbon, aldehydes, acids

Conditions to Avoid: Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke resulting in hazardous decomposition products.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.

ACUTE EFFECTS OF OVEREXPOSURE:

Eye contact: may cause temporary irritation.
Inhalation: May cause irritation to nose, throat, respiratory tract.
Ingestion: None known.
Skin contact: Prolonged contact causes skin burns.

Chronic: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: Early studies with DGEBA have been negative. The IARC concluded in 1988 that DGEBA was not classifiable as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush with water for 15 minutes holding eyelids open. If irritation persists, get medical attention.
Ingestion: Dilute with no more than 2 glasses of milk or water. If irritation persists, get medical attention.
Skin Contact: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Place in an appropriate disposal facility in compliance with all federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control, a NIOSH approved respirator for organic vapours is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Transportation of Dangerous Goods Classification: Not regulated
Consumer warnings: Caution: Irritant, skin sensitizer.

Other Requirements:

Canada NSNR: All substances in this product are on the Domestic Substances List.

U.S. EPA: This product contains no toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

The information contained herein is based on the data available to us and is believed to be correct. However, System Three, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

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MATERIAL SAFETY DATA SHEET

System Three Resins, Inc. 3500 W. Valley Hwy N, Suite 105 Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: 81-Cure Fast Hardener PART B WHMIS Classification: D1B, E
Date of Prep: March 5, 2012 Information: (253) 333-8118
Product Type: Amino Compound Mixture Prepared By: J. Barlett
24-Hr. Emergency Phone: CHEMTREC 800-424-9309
CAI/UTEC: 1-613-998-6668
HMS Ratings:
Health 3
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Phenol	1-5%	108-95-2	5 ppm	5 ppm
Modified Aliphatic Amines (Mixture is trade secret)	20-30%	—	none established	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 204°C
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odor: Straw yellow mobile liquid with ammonia-like odour.
Specific Gravity: 1.03
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 110°C
Method: Pensky-Martens Closed Cup
Flammable Limits in Air By Volume: Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Special Firefighting Procedures: When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes will be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke.

Incompatibility: Strong oxidizing agents, mineral acids.
Hazardous Decomposition Products: Oxides of carbon, nitrogen
Hazardous Polymerization: Will not occur.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.

ACUTE EFFECTS OF OVEREXPOSURE:

Eye contact: may cause severe irritation or corrosive damage.
Inhalation: Severe irritation to nose, throat, respiratory tract.
Ingestion: May cause bleeding of intestinal tract.
Skin contact: Prolonged contact causes skin burns.

CHRONIC EFFECTS OF OVEREXPOSURE: May cause skin sensitization from prolonged and repeated contact.

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Carcinogenicity: No ingredients in this product are registered with IARC, NTP, or OSHA as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush with water for 15 minutes holding eyelids open. If irritation persists, get medical attention.
Ingestion: Dilute with no more than 2 glasses of milk or water. If irritation persists, get medical attention.
Skin Contact: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Waste is not hazardous by RCRA criteria (40 CFR 261).
Place in an appropriate disposal facility in compliance with federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control a NIOSH approved respirator for organic vapour is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - OTHER REQUIREMENTS

T.D.G. Classification: AMINES, LIQUID, CORROSIVE, N.O.S., (ETHYLENE AMINE), 8, UN2736, PG III

Consumer Warnings: DANGER! Corrosive

Canada NSNR: All substances in this product are on the Domestic Substances List.

U.S. EPA Right-To-Know SARA Title III: This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

The information contained herein is based on the data available to us and is believed to be correct. However, System Three, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

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MATERIAL SAFETY DATA SHEET

System Three Resins, Inc. 3500 W. Valley Hwy N, Suite 105 Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: 51-Cure Slow Hardener PART B
Date of Prep: March 5, 2012
Product Type: Amino Compound Mixture
24-Hr. Emergency Phone:
CANUTEC: 1-813-898-8868

WHMIS Classification: D1B, E
Information: (253) 333-8118
Prepared By: J. Bartlett

HMS Ratings:
Health 3
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Phenol	1-5%	108-95-2	5 ppm	5 ppm
Modified Aliphatic Amines (Mixture is trade secret)	20-30%	-----	none established	none established
Reaction Products with Phenol/TETA	30-40%	32810-77-8	none established	none established
Triethylendiamine	5-10%	112-24-3	none established	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 204°C
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odor: Amber mobile liquid with ammonia-like odour.

Specific Gravity: 1.03
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 110°C
Flammable Limits in Air By Volume: Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martins Closed Cup

Special Firefighting Procedures:

When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes will be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke.

Incompatibility: Strong oxidizing agents, mineral acids.
Hazardous Decomposition Products: Oxides of carbon, nitrogen
Hazardous Polymerization: Will not occur.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.

ACUTE EFFECTS OF OVEREXPOSURE:

Eye contact: may cause severe irritation or corrosive damage.
Inhalation: Severe irritation to nose, throat, respiratory tract.
Ingestion: May cause bleeding of intestinal tract.

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Skin contact: Prolonged contact causes skin burns.

CHRONIC EFFECTS OF OVEREXPOSURE: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: No ingredients in this product are registered with IARC, NTP, or OSHA as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush with water for 15 minutes holding eyelids open. If irritation persists, get medical attention.
Ingestion: Dilute with no more than 2 glasses of milk or water. If irritation persists, get medical attention.
Skin Contact: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Waste is not hazardous by RCRA criteria(40 CFR 261).
Place in an appropriate disposal facility in compliance with federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control a NIOSH approved respirator for organic vapour is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - OTHER REQUIREMENTS

T.D.G. Classification: AMINES, LIQUID, CORROSIVE, N.O.S., (ETHYLENE AMINE), 8, UN2735, PG III

Consumer Warnings: DANGER! Corrosive

Canada NSNR: All substances in this product are on the Domestic Substances List.

U.S. EPA Right-To-Know SARA Title III:

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

The information contained herein is based on the data available to us and is believed to be correct. However, System Three, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

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MATERIAL SAFETY DATA SHEET

System Three Resins, Inc. 3500 W. Valley Hwy N, Suite 105 Auburn, Washington 98001

SECTION I - PRODUCT IDENTIFICATION

Product Name: 51-Cure No-Blush Hardener PART B
Date of Prep: March 5, 2012
Product Type: Amino Compound Mixture
24-Hr. Emergency Phone:
CANUTEC: 1-813-898-8868

WHMIS Classification: D1B, E
Information: (253) 333-8118
Prepared By: J. Bartlett

HMS Ratings:
Health 3
Fire 1
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Phenol	1-5%	108-95-2	5 ppm	5 ppm
Modified Aliphatic Amines (Mixture is trade secret)	50-60%	-----	none established	none established
Reaction Products with Phenol/IPDA	40-50%	32610-77-8	none established	none established

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 204°C
Vapor Density: Heavier than Air
Evaporation Rate: Slower than Ether
Appearance and Odor: Amber mobile liquid with ammonia-like odour.

Specific Gravity: 1.03
Material V.O.C.: None
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 110°C
Flammable Limits in Air By Volume: Lower: N/A Upper: N/A
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martins Closed Cup

Special Firefighting Procedures:

When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire-exposed containers. Toxic fumes will be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in large mass as the ensuing exotherm may result in heat and smoke.

Incompatibility: Strong oxidizing agents, mineral acids.
Hazardous Decomposition Products: Oxides of carbon, nitrogen
Hazardous Polymerization: Will not occur.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.

ACUTE EFFECTS OF OVEREXPOSURE:

Eye contact: may cause severe irritation or corrosive damage.
Inhalation: Severe irritation to nose, throat, respiratory tract.
Ingestion: May cause bleeding of intestinal tract.

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Skin contact: Prolonged contact causes skin burns.

CHRONIC EFFECTS OF OVEREXPOSURE: May cause skin sensitization from prolonged and repeated contact.

Carcinogenicity: No ingredients in this product are registered with IARC, NTP, or OSHA as a carcinogen.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush with water for 15 minutes holding eyelids open. If irritation persists, get medical attention.
Ingestion: Dilute with no more than 2 glasses of milk or water. If irritation persists, get medical attention.
Skin Contact: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) cannot be decontaminated and should be destroyed.

Medical Conditions Generally Aggravated by Exposure: Other than skin sensitization which appears to be permanent, epoxy resin does not appear to cause long term health effects. Nor, does it appear to aggravate other medical conditions.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Waste is not hazardous by RCRA criteria(40 CFR 261).
Place in an appropriate disposal facility in compliance with federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Normally none is required when adequate ventilation is provided. In the absence of proper environmental control a NIOSH approved respirator for organic vapour is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - OTHER REQUIREMENTS

T.D.G. Classification: AMINES, LIQUID, CORROSIVE, N.O.S., (ETHYLENE AMINE), 8, UN2735, PG III

Consumer Warnings: DANGER! Corrosive

Canada NSNR: All substances in this product are on the Domestic Substances List.

U.S. EPA Right-To-Know SARA Title III:

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA) and of 40 CFR 372:

The information contained herein is based on the data available to us and is believed to be correct. However, System Three, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. System Three assumes no responsibility for injury from the use of the product described herein.

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SAFETY DATA SHEET

1. Product Identification

Product name	General Purpose Hardener #1
SDS Number	0101800
Product type	Curing Agent
Manufacturer/Supplier Information	
Company name	SYSTEM THREE RESINS, INC.
Address	3500 W. Valley Hwy, Suite Suite 105 Auburn, WA 98991-2436 United States 1-253-933-8118
Telephone	
Website	www.systemthree.com
Email	support-06@systemthree.com
Emergency Contact	CHEMTREC (U.S. and CANADA) 1-800-424-9300 CHEMTREC (Outside the U.S.) 1-703-527-0585

2. Hazard(s) Identification

Classification of substance or
mixture/Signal Word

CAUTION

GHS Label Elements
Hazard Pictograms



Hazard Statements/Classification of
substance or mixture

H302 Harmful if swallowed
H317 May cause sensitisation by skin contact.
H361DF Reproductive toxicity
H400 Acute Hazard to aquatic life
H410 Chronic hazard to aquatic life

Precautionary statements

Precautionary Statements
Prevention

P280 Wear protective gloves. Wear eye or face protection.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

Response

P308 + P313 If exposed or concerned: Get medical attention.

Storage

P401 Store at room temperature in a well ventilated area.

Disposal

P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

Methods and materials for
containment/cleanup

Stop spill at source, dike area to prevent spreading, place in proper waste container. Contact Chemtrec for further instruction. Approach suspected leak areas with caution.

Environmental precautions

Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

7. Handling And Storage

Precautions for safe handling

Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.

Precautions/Recommendations for
safe/proper storage

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep from freezing.

8. Exposure Controls/Personal Protection

Engineering controls

Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Individual protection measures/Personal
protective equipment

Eye/face protection

Splash-proof goggles or safety spectacles with side shields are recommended. Always wear eye protection when sanding cured epoxy resins to avoid dust in eyes.

Hand protection

Always wear impervious gloves: butyl rubber, nitrile rubber, Neoprene, PVC disposable gloves.

Skin protection

Wear clean, body-covering clothing to avoid skin contact.

Environmental exposure controls

Use appropriate containment to avoid environmental contamination. Do not allow spill to enter sewers or waterways.

Special instructions for protection and
hygiene

Discard contaminated leather articles. Remove contaminated clothing. Wash at the end of each work shift and before eating smoking or using the toilet.
Provide readily accessible eye wash stations and safety showers.

9. Physical And Chemical Properties

Chemical family	Amine Curing Agent
Appearance	Clear liquid
Physical State	
Form	Pourable Liquid
Color	Straw Yellow
Odor	Ammoniacal
Relative density	0.9 - 1.0
Viscosity	110-120 cps at 77 °F (25 °C)
pH	Alkaline
Initial boiling point and boiling range	N/A

3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Aliphatic/Cycloaliphatic Amine Mixture	Trade Secret	20-40%
Triethanolamine	102-71-6	1-5%
Nonyl Phenol	25154-52-3	40-60%

4. First-Aid Measures

General advice	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
Skin contact	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
Eye contact	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical attention. If medical care is not promptly available, continue to irrigate for one hour.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
Inhalation	Move to fresh air.

5. Fire-Fighting Measures

Suitable extinguishing media	Alcohol-resistant foam. Carbon dioxide (CO ₂). Dry chemical Water Fog
Specific hazards arising from the chemical	Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
Special protective equipment and precautions for fire-fighters	
Fire-fighting equipment/instructions	Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
Further information	Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental Release Measures

Personal precautions	Wear proper protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing.
Emergency procedures	Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.

Flash point	N/A
Vapor pressure	N/A

10. Stability And Reactivity

Chemical Stability	Stable under normal conditions.
Incompatible materials	Organic acids (i.e. acetic acid, chloric acid, etc.). Mineral acids. Sodium hypochlorite. Oxidizing agents.
Hazardous decomposition products	Nitric acid Ammonia Aldehydes Nitrogen oxides (NO _x) Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO ₂).

11. Toxicological Information

Acute Health Hazard (components)

*No comprehensive data (Ingestion, Inhalation, dermal) on mixture (product).

Component 1

Acute Oral Toxicity	LD50: 1,080 mg/kg	Rabbit
Inhalation	LC50 (4 h): > 0.07 - < 0.3 mg/l	Rat
Acute Dermal Toxicity	LD50: 1090 mg/kg	Rabbit

Component 2

Acute Oral Toxicity	LD50: 2097 mg/kg	Rabbit
Acute Dermal Toxicity	LD50: 866 mg/kg	Rabbit
Chronic Dermal Toxicity	Sensitizing	Guinea Pig

Component 3

Acute Oral Toxicity	LD50: 2885 mg/kg	Rat
Inhalation (Vapor)	LC50: > 0.74 mg/l	Rat
Acute Dermal Toxicity	LD50: 2979 mg/kg	Rabbit

There is no comprehensive data showing potential carcinogenicity by OSHA, NTP, or IARC.

12. Ecological Information

Ecotoxicity

Aquatic toxicity	No data on the product itself
Component 1	No data on the component itself
Component 2	Acute EC50 Daphnia 58 mg/ml Acute LC50 Fish 2190 mg/ml
Component 3	Acute EC50 Daphnia 80mg/l

Persistence and degradability

- Component 1
- Component 2
- Component 3

Bioaccumulative Potential

- Component 1
- Component 2
- Component 3

Mobility in Soil

Acute LC50 Fish 772mg/l

No data on product itself.

No data on the component itself.

OECD data shows not readily biodegradable.

OECD data shows not readily biodegradable.

No data on product itself.

No data on component itself.

log_{P_{ow}} -1.48 BCF not known

log_{P_{ow}} 1.34 BCF not known

No data on the product itself

13. Disposal Considerations

Waste from residues/ unused products	Product should not be allowed to enter drains, water courses or the soil; dispose of this material and its containers in a safe way. Contact supplier if guidance is required.
Contaminated packaging	Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

International Transport Regulations

Regulatory Information	UN/NA number	Proper Shipping Name	Classes*/PG	Reportable Quantity (RQ)
DOT		Non-regulated		
TDG		Non-regulated		
IMO/IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S (NONYL PHENOL)	Class 9 III	
IATA (Cargo)	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (NONYL PHENOL)	Class 9 III	

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory Information

UNITED STATES

U.S. Federal Regulations

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California Prop. 65

United States Inventory (TSCA 8b)

CANADA

WHMIS (Canada)

Canadian NPRI
CEPA Toxic substances

INTERNATIONAL REGULATIONS

International Lists

United States - TSCA 12(b) - Chemical export notification: None Required.
United States - TSCA 5(a)(2) - Final significant new use rules: Not Listed.
United States - TSCA 12(b) - Proposed significant new use rules: None Required.
United States - TSCA 5(a) - Substance consent order: Not Listed.

This product contains no chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

All components are listed or exempted

Class D-28: Material causing other toxic effects (Toxic).

None Required
None Required

Australia Inventory (AICS): All components are listed or exempted.
Canada Inventory: All components are listed or exempted.
Japan Inventory: All components are listed or exempted.
China Inventory (IECS): All components are listed or exempted.

16. Other Information, Including Date Of Preparation Or Last Revision

HMIS Rating

Health	2
Physical Hazard	0

Date of Preparation

February 17, 2016

More Information

1-253-333-8118

Prepared By

J. Bartlett, System Three Resins Inc.



PPG Aerospace
Curing Microwave

Safety Data Sheet

Product Name: C-FOAM PK-2 Part A
C-FOAM PK-5 Part A
C-FOAM PK-FLEX Part A

Issue Date: 25 JUN 2015

Curing Microwave encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: C-FOAM PK-2, PK-5, and PK-FLEX Part A

COMPANY IDENTIFICATION
Curing Microwave Corporation
264 Bodwell St.
Avon, MA 02322 USA
www.curingmicrowave.com

Emergency Telephone: +1 508-521-6700

2. HAZARDS IDENTIFICATION

GHS Classification:

Acute Inhalation Toxicity Category 4
Skin Irritation Category 2
Eye Irritation Category 2
Respiratory Sensitization Category 1
Skin Sensitization Category 1
Carcinogenicity Category 2
Specific Target Organ Toxicity Single Exposure Category 3
Specific Target Organ Toxicity Repeated Exposure Category 2

Label Elements: Danger



Contains polymeric methylenediphenyl diisocyanate (MDI)

Hazard Phrases

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation. H351 Suspected of causing cancer.
H373 May cause damage to organs (lungs and respiratory system) through prolonged or repeated exposure.

Precautionary Phrases

P202 Do not handle until all safety precautions have been read and understood.
P280 Do not breathe vapors or mists.
P280 Wear protective gloves, protective clothing, eye protection, and face protection.
P284 In case of inadequate ventilation, wear respiratory protection. P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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ProductName: C-FOAM PK-2, PK-5, PK-FLEX Part A

Issue Date: 25 JUN 2015

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313 IF exposed or concerned: Get medical attention.
P403+233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents and container in accordance with local, regional and national regulations.

Supplemental Information: Individuals sensitized to isocyanates should discontinue use. Long-term overexposure to isocyanates may cause lung damage.
This is one part of a two-part system. Read and understand the hazard information on part B before using.

3. COMPOSITION INFORMATION

Component	CAS#	Amount
Polymeric methylenediphenyl diisocyanate (MDI)	9018-87-9	85 - 100%

4. FIRST AID MEASURES

Eye Contact: Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Get prompt medical attention.

Skin Contact: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop. Launder clothing before re-use. Discard items that cannot be decontaminated.

Inhalation: Remove person to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.
Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

Most Important Symptoms/Effects: Causes skin and eye irritation. Vapors or mists may cause respiratory irritation. May cause allergic skin and/or respiratory reaction in sensitized persons. Symptoms include skin rash, wheezing, shortness of breath and other asthma symptoms. Prolonged inhalation overexposure may damage the lungs and respiratory system.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention is required for asthmatic symptoms or serious inhalation exposures. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Persons sensitized to isocyanates should consult a physician regarding working with respiratory irritants or sensitizers.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

Specific Hazards: Not classified as flammable or combustible. Product will burn under fire conditions.

Special Protective Equipment & Precautions for Fire-Fighters: Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Ventilate area. Caution – spill area may be slippery.

Methods and Materials for Containment and Cleanup: Cover with an inert absorbent material and collect into an appropriate container for disposal. Do not seal the container since carbon dioxide is generated on contact with moisture and dangerous pressure buildup can occur. Decontaminate floor area with a mixture of water plus isopropyl alcohol (20%), household ammonia (10%), and detergent (2%).

7. HANDLING AND STORAGE

Safe Handling: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

Safe Storage: Store indoors at temperatures between 60°F and 95°F. Store in original, unopened containers. Protect from atmospheric moisture and water since MDI reacts with water to form carbon dioxide leading to potentially dangerous pressure buildup up in sealed containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits:**

Chemical Name	Exposure Limits
Methylenediphenyl Diisocyanate (MDI)	0.02 ppm (C) OSHA PEL 0.005 ppm TWA ACGIH TLV

Ventilation: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

Skin Protection: Wear impervious gloves, such as butyl rubber or nitrile rubber.

Eye Protection: Wear chemical safety goggles.

Other Protective Measures: Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown liquid
Odor: Musty
Odor Threshold: 0.4 ppm (MDI)
pH: Not applicable
Melting Point: No data available
Boiling Point: No data available
Flash Point: >204°C (Literature)
Evap. Rate: No data available
Flammability Limits: No data available

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Vapor Pressure: <0.00001 mm Hg @ 25°C (Literature)
Vapor Density: No data available
Relative Density: 1.2 @ 25°C
Solubility: Insoluble in water
Partition Coefficient: n-octanol/Water: Reacts with water
Auto-Ignition Temp: No data available
Decomposition Temp: No data available Viscosity: 150-200cP @ 25°C

10. STABILITY AND REACTIVITY

Reactivity: Diisocyanates react with many materials and the rate of reaction increases with temperature. Reaction with water generates carbon dioxide and heat.

Chemical Stability: Stable under recommended conditions. Possibility of Hazardous Reactions: Elevated temperatures can cause hazardous polymerization. Polymerization can be catalyzed by strong bases or water. Reaction with water generates carbon dioxide, and results in heat and pressure buildup in closed systems.

Conditions to Avoid: Avoid moisture and temperatures below 60°F and above 95°F to protect product integrity and prevent pressure buildup up in closed containers.

Incompatible Materials: Avoid contact with water, acids, bases, alcohols, strong oxidizers, and some metals (e.g., aluminum, zinc, brass, tin copper).

Hazardous Decomposition Products: Possibly isocyanate vapor, carbon monoxide, nitrogen oxides, and traces of hydrogen cyanide. Gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Eye Contact: May cause moderate irritation. May cause temporary corneal injury.

Skin Contact: May cause irritation. May stain skin. Repeated skin contact may cause an allergic skin reaction (sensitization). Animal studies indicate that skin contact with isocyanates may affect potential respiratory sensitization.

Inhalation: At room temperature, vapors are minimal due to low volatility. Vapors or aerosols (e.g., generated during heating or spraying) may cause respiratory irritation and possibly pulmonary edema. May cause respiratory sensitization. For individuals sensitized to isocyanates, exposure may result in allergic respiratory reactions (e.g., coughing, wheezing, difficulty breathing).

Ingestion: Single oral dose toxicity is low. Ingesting large amounts may cause adverse gastrointestinal effects.

Chronic Health Effects: Repeated or prolonged exposure to isocyanates above exposure limits may cause an allergic sensitization of the respiratory tract causing an asthma-like response upon re-exposure.

Repeated or prolonged exposure to isocyanates has been associated with decreased lung function. Repeated or prolonged dermal contact with this product may cause allergic skin sensitization in some individuals.

Acute Toxicity Values:

MDI Oral rat LD50 >10,000 mg/kg; Skin rabbit LD50 >2,000 mg/kg. Inhalation rat LC50 0.49 mg/L/4 hr (aerosol).

Germ Cell Mutagenicity: Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies, other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

Carcinogenicity: Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/polymeric MDI (5 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI. MDI is not designated as a carcinogen by NTP, IARC, or OSHA. **Reproductive Toxicity:** In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

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Specific Target Organ Toxicity:

Single Exposure: May cause respiratory irritation.

Repeat Exposure: Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not classified as dangerous to aquatic organisms (LC50/EC50/AC50/L50/EL50 >100 mg/L in most sensitive species).

Persistence and Degradability: Diisocyanates are not readily biodegradable.

Bioaccumulative Potential: Diisocyanates are not expected to bioaccumulate.

Mobility in Soil: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

13. DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

Dispose according to local, state and federal regulations. Upon exposure to moisture, product forms an inert, non-hazardous solid.

14. TRANSPORT INFORMATION

DOT Non-Bulk
NOT REGULATED

DOT Bulk
NOT REGULATED

IMDG
NOT REGULATED

ICAO/IATA
NOT REGULATED

15. REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS:**

CERCLA 103 Reportable Quantity: Not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA TITLE III

Section 311/312: Acute Health, Chronic Health

Section 313 Toxic Chemicals: Contains the following chemicals subject to SARA Title III Section 313 Reporting requirements.

Diisocyanates Category (N120)

85-100%

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the chemical substances in this product are listed on TSCA.

STATE REGULATIONS:

California Proposition 65: These products do NOT contain substances known to the State of California to cause cancer and/or reproductive harm.

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16. OTHER INFORMATION

Training Advice: All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

Recommended Uses and Restrictions: This product is intended for industrial or professional use only.

Cumming Microwave urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped.

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Safety Data Sheet

Product Name: C-FOAM PK-2 Part B
C-FOAM PK-5 Part B
C-FOAM PK-FLEX Part B

Issue Date: 25 JUN 2015

Curing Microwave encourages and expects you to read and understand the entire SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: C-FOAM PK-2, PK-5, and PK-FLEX Part B

COMPANY IDENTIFICATION
Curing Microwave Corporation
204 Bodwell St.
Avon, MA 02322 USA
www.curingmicrowave.com

Emergency Telephone: +1 508-521-6700

2. HAZARDS IDENTIFICATION

GHS Classification: Not classified as hazardous
Label Elements: Not classified as hazardous
Supplemental Information: May cause mild eye and skin irritation. Avoid contact with eyes, skin and clothing.
This is one part of a two-part system. Read and understand the hazard information on Part A before using.

3. COMPOSITION INFORMATION

Ingredients are not classified as health and/or environmental hazards, and/or are present below cut-offs / concentration limits.

4. FIRST AID MEASURES

Eye Contact: Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Get medical attention if irritation persists.

Skin Contact: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

Inhalation: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, call a doctor.

Ingestion: If swallowed, rinse mouth. Drink water. Induce vomiting only with medical supervision.

Most Important Symptoms/Effects: May cause mild skin and eye irritation.

Indication of Immediate Medical Attention/Special Treatment: Not expected to be required

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ProductName: C-FOAM PK-2, PK-5, PK-FLEX Part A

Issue Date: 25 JUN 2015

5. FIRE FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical, foams, or water spray.

Specific Hazards: Not classified as flammable or combustible. May generate toxic/irritating compounds and dense smoke in fire conditions.

Special Protective Equipment and Precautions for Fire-Fighters: Wear SCBA & full-body protective suit. Cool hot containers with water.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact.

Methods and Materials for Containment and Cleanup: Contain spill and prevent/minimize release to the environment. Absorb spilled material with an inert absorbent. Collect and containerize material. Dispose of residue in accordance with state and local regulations.

7. HANDLING AND STORAGE

Safe Handling: Avoid breathing vapor. Use in well ventilated area. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke in work area. Wash hands after handling. See Section 8.

Safe Storage: Store indoors at temperatures between 60 and 95°F. Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: No OSHA or ACGIH exposure limits apply.

Engineering Controls: Provide general and local exhaust to minimize airborne concentrations.

Personal Protective Equipment: Wear eye protection (e.g., chemical splash goggles), protective clothing and impermeable gloves (e.g., nitrile or butyl rubber). In the absence of good ventilation, use respirator equipped with organic vapor cartridges or air-supplied respirator.

Other Protective Measures: Impervious clothing is recommended to prevent skin contact and contamination of personal clothing. An eyewash and washing facility should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquids

Odor: Slight

Odor Threshold: No data available

pH: Not applicable

Melting Point: No data available

Boiling Point: No data available

Flash Point: >128°C (262°F) (estimated)

Evap. Rate: No data available

Flamm. Limits: No data available

Vapor Pressure: ≤0.1 mm Hg @ 25°C

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ProductName: C-FOAM PK-2, PK-5, PK-FLEX Part A

Issue Date: 25 JUN 2015

Vapor Density: No data available
Relative Density: 1.0-1.1 @ 25°C
Solubility: Slightly soluble in water
Partition Coefficient: n-octanol/water: No data available
Auto-ignition Temp: No data available
Decomposition Temp: No data available
Viscosity: 1,000-3,000 cP @ 25°C

10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive.
Chemical Stability: Stable under recommended conditions.
Possibility of Hazardous Reactions: Reaction with strong oxidizers generates heat.
Conditions to Avoid: Excessive heat and exposure to sunlight.
Incompatible Materials: Strong oxidizers.
Hazardous Decomposition Products: Thermal decomposition will generate oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Eye Contact: May cause mild irritation.
Skin Contact: May cause mild irritation.
Inhalation: Vapors or mists may cause mild respiratory irritation.
Ingestion: Single oral dose toxicity is low. No harmful effects anticipated from ingesting small amounts incidental to normal handling. Large amounts may cause gastrointestinal effects.
Chronic Health Effects: None known.
Acute Toxicity Values: For polyol ingredients: Oral rat LD50 >2,000 mg/kg. Skin rabbit LD50 >2,000 mg/kg.
Germ Cell Mutagenicity: Components are not known mutagens.
Carcinogenicity: Components are not listed as known or suspected carcinogens by NTP, IARC or OSHA. Plasticizer ingredient in R-2B is listed by the State of California as known to cause cancer.
Reproductive Toxicity: Components are not known or suspected reproductive toxins.
Specific Target Organ Toxicity: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not expected to be dangerous to aquatic organisms.
Persistence and Degradability: Not readily biodegradable.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.

13. DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.
Dispose according to local, state and federal regulations. Upon exposure to moisture, product forms an inert, non-hazardous solid. For U.S.: Upon disposal, this product is not a RCRA hazardous waste (per 40 CFR 261).

14. TRANSPORT INFORMATION

DOT Non-Bulk
NOT REGULATED

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ProductName: C-FOAM PK-2, PK-5, PK-FLEX Part A

Issue Date: 25 JUN 2015

DOT Bulk
NOT REGULATED

IMDG
NOT REGULATED

ICAO/IATA
NOT REGULATED

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:
CERCLA 103 Reportable Quantity: Not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA TITLE III:
Hazard Category for Section 311/312: Not Hazardous
Section 313 Toxic Chemicals: Contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

Section 302 Extremely Hazardous Substances (TPO): None
EPA Toxic Substances Control Act (TSCA) Status: All components of this product are listed on TSCA.

STATE REGULATIONS:
California Proposition 65: With the exception of PolyFoam R-2 Part B, these products do not contain substances known to the State of California to cause cancer and/or reproductive harm. PolyFoam R-2 Part B: "WARNING: This product contains a chemical known to the State of California to cause cancer." (This warning, required by CA, refers to a plasticizer that is not considered to be a hazardous substance under GHS.)

16. OTHER INFORMATION

Training Advice: All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

Recommended Uses and Restrictions: This product is intended for industrial or professional use only.

Curing Microwave urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped.

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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 01/10/18		Name of HWMC Receiving Person: Harrison / Leysa	
Section A: Container Information			
Container No.(s): 2018-0007		Waste Profile [X] Awaiting Analysis []	
Accumulation Start Date: 10/19/2017		Waste Profile Number: MT 17 355 02	
Description/Nomenclature: Damaged Lithium Batteries		MSDS []	
Liquid []		Solid [X] Aerosol []	
Cylinder []		Material to Waste []	
Type/Size of Container (DOT Code): 1H2		Gross Weight (Lbs.): 9 lbs	
DM [] Size:			
DF [X] Size: 3.5 gal. Open Top Poly			
Other [] (state type & size):			
Container Received is Acceptable: Yes [X] No []		Container Supplied by HWMC: Yes [] No [X]	
		Other [] (provide explanation in comments section below):	
Section B: Generator Information			
Organization/Contractor/Project: MT / Bldg. 21520 / Testing Operations			
Point of Contact: Larry Garcia		Signature: Telephone: 1-575-678-3198	
Section C: HWMC Personnel Only			
Accumulation/Storage Location:			
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []
1893 (5) []	90 Day Yard Other []	22903 (A) [X]	22904 (B) []
22905 (C) []	22906 (D) []	S22895#	22895 PAD []
Container Moved To: On (Date):		Other:	
Waste Disposal Cost:			
Time Req'd to Process Waste: Hrs: Min:		Container Cost:	
CLIN ID: BADSC7 Cost Per Lb: 2.00/lbs		Type: Qty: \$	
Total: 18.00		Type: Qty: \$	
1348 No.: 0236009			
Disposal Cost: 14.00		Customer APC/JONO:	
Delivery Order No: 2819		Line Item No.: 58	
Manifest No.:			
Comments:			

HAZARDOUS WASTE PROFILE SHEET

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Materiel Test Directorate
Range Residue Yard
Bldg. Number: 21520
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

MT 17 355 02
Replaces:
Contact: Allen Tyree
Phone: 575-678-4773

1. Name of Waste: Broken Lithium Ion Batteries
2. Clin: BA05
3. Generating Process: Testing Operations
4. Projected Volume: < 100 lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

•RCRA Characteristics•

- Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other
- Treatment Group:
☐ Wastewater ☐ Non-Wastewater
- ☐ Non-RCRA Waste (no other waste codes apply)
- ☐ Ignitable (D001) Flash Point: N/A
☐ High TOC (>= 10%) ☐ Low TOC (<10%)
- ☐ Corrosive (D002) pH: N/A
- ☒ Reactive (D003) ☒ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive
- ☐ Toxicity Characteristics:
- ☐ F- Listed Waste:
- ☐ P - Listed Waste:
- ☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
Electrolyte	5-20%
Electrolyte Salt	5-30%
Electrolyte Solvents	70-95%
Polyvinylidenefluoride	<1%
Copper	9-18%
Aluminum	17-27%
Cathode (Lithium Cobaltite, Manganese, Nickel, Aluminum)	0-50%
Anode (Graphite, Carbon Black)	13-18%
Lithium cobalt	15-40%
Lithium Hexafluorophosphate	0-5%
Diethyl Carbonate	0-15%
Ethyl Methyl Carbonate	0-15%
Propylene Carbonate	0-15%

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Waste Water Reactive Solid, n.o.s. (Broken Lithium-ion Batteries)

Waste Codes: D003

Hazard Class: 4.3 UN or NA No.: UN 2813 PG: II

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 138

•Basis for Information•

- ☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See Attached MSDS for Molicel Rechargeable Lithium-ion cells and multi-cell battery packs (05/08/15) and Amperex Technology Phantom Batteries (2015)

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Date
21-Dec-17



SAFETY DATA SHEET

This Safety Data Sheet meets or exceeds the requirements of the Canadian Controlled Product Regulations (CPR), the United States Occupational Safety and Health Administration (OSHA) hazard communication standard, the Australian National Occupational Health and Safety Commission (NOHSC), the Taiwan Bureau of Standards, Metrology & Inspection (BSMI), the Japan Ministry of Economy, Trade and Industry (METI), the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (GB/T 16483-2008) and the European Union Commission Regulation (EC) No 1907/2006.

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Name of the substance: MoliceL Rechargeable Lithium-ion cells and multi-cell battery packs.

Product Codes:

IBR18650, ICR18650, IMR18650, INR18650, IHR18650, ICP103450, ICP1003450, IBR26700, IMR26700, MCR1821, ME202.

*Product codes can be followed by letters and/or numbers (A-ZZ, 0-9) which denote model designations.

List of models can be found in section 16 of this SDS

Identification Number: Not applicable

Registration Number: Not applicable

Synonyms: Lithium-ion Cell, Lithium-ion Pack, Lithium-ion Battery, Li-ion Cell, Li-ion Pack, Li-ion Battery
Synonyms may be preceded by the brand name MoliceL and followed by the product code and model designation.
For example: MoliceL Lithium-ion Battery ME202C, MoliceL Lithium-ion Cell ICR18650J

Issue Date: 11-May-2015

Version number: AE

Revision Date: 08-May-2015

Supersedes Date: 04-May-2015

1.2. Relevant Identified uses of the substance or mixture and uses advised against.

Identified uses: Rechargeable Lithium-ion cell for single cell or Multi-cell lithium-ion battery packs.
Restrictions on Use: For use as a battery-based power supply only. Do not rupture or expose solution inside of the cell or pack.

1.3. Details of the supplier of the safety data sheet.

Supplier Name: E-One Moli Energy (Canada) Ltd.	Factory Name: E-One Moli Energy Corp. (Taiwan)
Address: 20,000 Stewart Crescent	Address: No. 10 Dail 2 nd Road, Tainan Science Park
Maple Ridge, B.C., Canada, V2X9E7	Shan-Hwa, Tainan County, 741, Taiwan
E-Mail: moliceL@molienergy.com	E-Mail: service@molienergy.com
Telephone: (604) 466-8654	Telephone: 886-6-8050688

1.4. Emergency telephone number

24 hour emergency number within North America: CANUTEC (813) 996-6666, collect calls accepted.
(*666 on a cellular phone in Canada Only).

1.5 Details of the local distributor or agent of the products listed on the safety data sheet.

Distributor/Agent Name: Telephone:
Address: Email:
Other Information:

E-One Moli Energy (Canada) Ltd

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2. Hazards Identification

Protective Clothing	NFPA Rating (USA)	EC Classification	WHMIS (Canada)	SafeWork (Australia)
Not required with normal use.		Not classified as hazardous	Not applicable with normal use.	Not classified as hazardous
GHS Hazard Symbol	IATA	JIS (Japan)	Taiwan	China
Not applicable with normal use.		Not classified as hazardous	Not classified as hazardous	Not classified as hazardous

Table 1

2.1. Classification of the substance or mixture.

2.1.1. Preparation Hazards and Classification: The product is a Lithium ion cell or battery and is therefore classified as an article and is not hazardous when used according to the recommendations of the manufacturer. The hazard is associated with the contents of the cell or battery. Under recommended use conditions, the electrode materials and liquid electrolyte are non-reactive provided that the cell or battery integrity remains and the seals remain intact. The potential for exposure should not exist unless the cell or battery leaks, is exposed to high temperatures or is mechanically, electrically or physically abused/damaged. If the cell or battery is compromised and starts to leak, based upon the battery ingredients, the contents are classified as Hazardous.

2.1.2. Classification according to Directive 67/548/EEC or 1990/45/EEC as amended: Not applicable

2.1.3. Classification according to Regulation (EC) No. 1272/2008 as amended: Not applicable

2.1.4. Hazard Summary

Physical hazards: Not classified for physical hazards
Health hazards: Not classified for health hazards.
Environmental hazards: Not classified for hazards to the environment.
Specific hazards: Exposure to contents of an open or damaged cell or battery contact with this material will cause burns to the skin, eyes and mucous membranes.
May cause sensitization by skin contact.
Symptoms include itching, burning, redness and tearing.

Main Symptoms:

2.2. Label elements

2.2.1. Label according to Regulation (EC) No. 1272/2008 as amended.

Identification Number: Not applicable
Hazard pictograms: Not applicable
Signal word: Not applicable
Hazard statements: Not applicable under normal use in accordance with United Nations Conference on Environmental and Development (UNCED) and Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200. The article does not meet the criteria for classification.

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Precautionary Statement(s)	P102: Keep out of reach of children. P103: Read label prior to use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking. P234: Keep only in original container. P254: Wash hands thoroughly after handling.
Response (if cell/battery leaks)	P280: Do not breathe vapor or spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301/330/331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. P303/361/353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304/340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P363: Wash contaminated clothing before reuse. P370: In case of fire: Use carbon dioxide, dry chemical or water extinguisher.
Storage (Store as indicated in Section 7)	P402: Store in a dry place. P405: Store locked up. P410: Protect from sunlight.
Disposal	P409: Store any spilled/leaking electrolyte material in a corrosive resistant container with a resistant inner liner. P501: Dispose of batteries in accordance with applicable hazardous waste regulations.

Table 2

Supplemental label information: None

2.3. Other Hazards.

2.3.1. Appearance, Color and Odor: Solid object with no odor.

2.3.2. Primary Routes(s) of Exposure: These chemicals are contained in a sealed enclosure. Risk of exposure occurs only if the cell or pack is mechanically, thermally, electrically or physically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by inhalation, ingestion, eye contact and skin contact.

2.3.3. Potential Health Effect(s):

2.3.3.1. Acute (short term): see Section 8 for exposure controls.
In the event that this cell or pack has been ruptured, the electrolyte solution contained within the cell would be corrosive and can cause burns to skin and eyes.
Inhalation: Inhalation of materials from a sealed cell is not an expected route of exposure. Vapors or mists from a ruptured cell may cause respiratory irritation.
Ingestion: Swallowing of materials from a sealed cell is not an expected route of exposure. Swallowing the contents of an open cell can cause serious chemical burns to mouth, esophagus, and gastrointestinal tract.
Skin: Contact between the cell and skin will not cause any harm. Skin contact with the contents of an open cell can cause severe irritation or burns to the skin.
Eyes: Contact between the cell and the eye will not cause any harm. Eye contact with the contents of an open cell can cause severe irritation or burns to the eye.
2.3.3.2. CHRONIC (long term): see Section 11 for additional toxicological data.

2.3.4. Medical Conditions Aggravated by Exposure: Not Available.

2.3.5. Interactions with other chemicals: Immersion in high conductivity liquids may cause corrosion and bleaching of the cell or battery enclosure. The electrolyte solution inside of the cells may react with alkaline (basic) materials and prevent a flammability hazard.

2.3.6. Potential Environmental Effects: Not Available

3. Composition/Information on Ingredients

1. As a solid, manufactured article, exposure to hazardous ingredients is not expected with normal use.

Canada: This is not a controlled product under WHMIS. This product meets the definition of a "manufactured article" and is not subject to the regulations of the Hazardous Products Act.
USA: This cell or battery is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Safety Data Sheet contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

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Australia: The product is a Lithium-ion cell or battery and is therefore classified as an article and is not hazardous when used according to the recommendations of the manufacturer. The hazard is associated with the contents of the cell or battery. If the cell or battery is compromised and starts to leak, based upon the battery ingredients, the contents are classified as Hazardous according to the criteria of the National Occupational Health and Safety Commission (SafeWork Australia).
EU: This product is an article according to the REACH Regulation (1907/2006)
Japan: This product is not classified as a dangerous good
China: This product is not classified as a dangerous good

Cell Component	Chemical Name	CAS No	EINECS	*Concentration range in electrolyte (w/w %)	*Mass range in cell (g/g %)	GHS Classification
Electrolyte	Contains Electrolyte salt and solvents.				5-20	Skin Corr 1B - H314
Electrolyte salt	Lithium hexafluorophosphate	21324-40-3	244-334-7	5-30	1-5	-
Electrolyte solvents	Includes one or more of the following: Ethylene Carbonate Propylene Carbonate Diethyl Carbonate Dimethyl Carbonate Ethyl Methyl Carbonate	66-49-1 108-32-7 105-58-8 616-38-6 623-53-0	202-610-0 203-572-1 203-311-1 210-478-4 Not Listed	70-95	5-20	-
PVDF	Polyvinylidene fluoride	24937-79-9	Not Listed	-	<1	-
Copper	Cu	7440-50-8	231-159-6	-	9-18	-
Aluminum	Al	7429-90-5	231-072-3	-	17-27	-
Cathode	Includes one or more of the following: Lithium Cobaltite Manganese Nickel Aluminum	12190-79-3 7439-96-5 7440-02-0 7429-90-5	235-382-0 231-105-1 231-111-4 231-072-3	-	0-50	-
Anode	Includes one or more of the following: Graphite Carbon Black	7782-42-5 1333-86-4	231-955-3 215-609-9	-	13-18	-
Steel, Nickel, and Inert components	Various	Various	Various	-	Balance	-

*Quantities may vary depending on cell or battery model.

4. First Aid Measures

4.1. Description of first aid measures

The hazardous components of this cell or battery are contained within a sealed unit. The following measures are only applicable if exposure has occurred to components when a cell or battery leaks, is exposed to high temperatures or is mechanically, electrically or physically abused/damaged. The hazardous contents are caustic alkaline electrolytes contained in cells with lithium metal oxide cathodes, graphite and carbon anodes and Polyvinylidene fluoride binders.

Ingestion: Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING.
Quickly transport victim to an emergency care facility.
EYE: If eye contact with contents of an open cell occurs, immediately flush the contaminated eye(s) with water. Quickly transport victim to an emergency care facility.
Skin Contact: Immediately flush with water. If irritation or pain persists, seek medical attention.
Inhalation: Remove the patient from exposure into fresh air, seek medical attention.

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PROTECTION FOR FIRST AIDERS:

Do not enter corrosive vapor contaminated areas without a respirator or Self Contained Breathing Apparatus. Wear adequate personal protective equipment as indicated in Section 8.

FIRST AID FACILITIES:

Eye wash bottle, fountain, safety showers or at least a source of running water are required in the area where the product is used.

MOST IMPORTANT SYMPTOMS & EFFECTS, ACUTE & DELAYED, CAUSED BY EXPOSURE:

LTE: The contents of the battery are rated as corrosive. Ingestion of the electrolyte could lead to severe gastrointestinal tract irritation with nausea, vomiting and potentially fatal burns. Inhalation of vapors may lead to severe irritation of the mouth and upper respiratory tract with a burning sensation, pain, burns and inflammation in the nose and throat; there may also be coughing or difficulty breathing. Eye contact may lead to severe eye irritation or in worst case scenario irreversible damage and possible eye burns. Skin contact may lead to irritation and possible skin burns.

CHRONIC:

Skin contact may aggravate/exacerbate existing skin conditions, such as dermatitis. Chronic inhalation may lead to the same symptoms as listed for acute inhalation above.

4.3 Indication of any immediate medical attention and special treatment needed

ADVICE TO DOCTOR: Treat symptomatically if the person comes into contact with the corrosive electrolyte liquid contents of a damaged battery.

FSS00058AE

6.2. Environmental precautions

6.2.1. Absorb spilled material with non-reactive absorbent such as vermiculite, clay or earth. Prevent from migration into soil, sewers and natural waterways - Inform local authorities if this occurs.

6.3. Methods and material for containment and cleaning up

6.3.1. Evacuate spill area immediately and remove sources of ignition. Do NOT touch spilled material. Cleanup personnel must be trained in the safe handling of this product. Spills may be absorbed on non-reactive absorbents such as vermiculite. Place cells or batteries into individual plastic bags and then place into appropriate containers and close tightly for disposal. Ensure that cleanup procedures do not expose spilled material to any moisture. Immediately transport closed containers outside. Lined steel drums are suitable for storage of damaged cells or batteries until proper disposal can be arranged.

6.4. References to other sections

- 6.4.1. For information on Hazards, see Section 2 of the SDS
- 6.4.2. For information on personal protective equipment, see Section 8 of the SDS
- 6.4.3. For information on physical and chemical properties, see Section 9 of the SDS
- 6.4.4. For information on stability and reactivity, see Section 10 of the SDS
- 6.4.5. For information on environmental effects, see Section 12 of the SDS
- 6.4.6. For waste disposal, see section 13 of the SDS

7. Handling and Storage

7.1. Precautions for safe handling

Do not short circuit, open, disassemble, crush, puncture or burn cells or batteries. Do not expose cells or batteries to extreme heat or fire. Do not directly heat or solder cells. Do not mix cells of different types and brands. Do not mix new and used cells or batteries. Do not immerse cell or battery in liquids as there is a danger of short circuiting the cells or batteries. Do not incinerate the cells or batteries as there is a danger of explosion. Do not use or charge damaged, defective or deformed cells or batteries. Observe good industrial hygiene practices. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Conditions for safe storage: Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat and ignition sources. To minimize any adverse effects on cell and/or battery performance, it is recommended that the cells and/or batteries be kept at room temperature (25°C +/- 5°C). Elevated temperatures can result in shortened cell and/or battery life. Keep out of reach of children. Store away from incompatible materials, see Section 10 of the SDS.

7.3. Specific end use(s)

7.3.1. Lithium-ion battery pack.

7.4. Links to other Sections

- 7.4.1. For information on recommended uses, see Section 1 of this SDS
- 7.4.2. For information on accidental release measures, see Section 6 of this SDS
- 7.4.3. For information on personal protective equipment, see Section 8 of this SDS
- 7.4.4. For information on physical and chemical properties, see Section 9 of this SDS
- 7.4.5. For information on stability and reactivity, see Section 10 of this SDS
- 7.4.6. For information on toxicological information, see Section 11 of this SDS
- 7.4.7. For information on environmental effects, see Section 12 of this SDS
- 7.4.8. For information on transport hazard classes, see Section 14 of this SDS

8. Exposure Controls, Personal Protection

8.1. Exposure Control Measures

- 8.1.1. Exposure Limit Values: Airborne exposures to hazardous substances are not expected when the cells or batteries are used for their intended purposes. Exposure standards are not applicable to the sealed articles.
- 8.1.2. Biological Monitoring: Not applicable.
- 8.1.3. Control Banding: Not applicable.
- 8.1.4. Recommended monitoring procedures: Follow standard monitoring procedures.
- 8.1.5. Derived no-effect level (DNEL): Not applicable.
- 8.1.6. Derived minimal effect level (DMEL): Not applicable.
- 8.1.7. Predicted no-effect concentrations (PNECs): Not applicable.

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6.1. Extinguishing media

- 6.1.1. Suitable extinguishing media: Dry chemical, carbon dioxide and foam. Water acts as a cooling agent.
- 6.1.2. Unsuitable extinguishing media: Strong oxidizing agents, strong reducing agents, strong acids and strong alkalis. Despite water incompatibility, water is the most effective firefighting tool to control the spread of fire to other cells and batteries and combustibles.
- 6.1.3. Explosion Data: Closed containers may explode, burst, rupture or vent when exposed to temperatures above 120°C (248°F).
- 6.1.4. Hazchem Code (Australia, New Zealand, UK and Malaysia): 4W
- 6.1.5. Sensitivity to Mechanical Impact: Extreme mechanical abuse will result in rupture of the individual battery cells.
- 6.1.6. Sensitivity to Static Discharge: Electrostatic discharges imposed directly on the spilled electrolyte may start combustion.

6.2. Special hazards arising from the Chemical:

The interaction of water vapor and exposed lithium hexafluorophosphate (LiPF₆) may result in the generation of hydrogen and hydrogen fluoride (HF) gas. Contact with battery electrolyte may be irritating to skin, eyes and mucous membranes. Thermal degradation may produce hazardous fumes of lithium, cobalt and manganese, hydrofluoric acid, hydrogen and oxides of carbon, aluminum, lithium, copper and cobalt as well as smoke and irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

6.3. Advice for firefighters:

In case of fire where lithium-ion cells and batteries are present, flood the area with water. If any cells or batteries are burning, water may not extinguish them, but will cool the adjacent cells or batteries and control the spread of fire. Carbon Dioxide, dry chemical and foam extinguishers may be preferred for small fires, but also may not extinguish burning lithium-ion cells or batteries. Burning cells or batteries will burn themselves out. Virtually all fires involving lithium-ion cells and batteries can be controlled with water. When water is used, however, hydrogen gas may be evolved which can form an explosive mixture with air. LITH-X (powdered graphite) or copper powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used. These materials act as smothering agents.

6.4. Protective Equipment and Precautions for firefighters:

In the case of a fire and the release of hydrogen fluoride, it is critical to protect the skin from any contact. Fire fighters should wear a self-contained breathing apparatus. Burning lithium-ion cells and batteries can produce toxic fumes including hydrogen fluoride (HF), oxides of carbon, aluminum, lithium, copper and cobalt. Volatile phosphorus penta fluoride may form at temperatures above 110°C (230°F). Wear adequate personal protective equipment as indicated in Section 8.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed areas before entering. Wear adequate personal protective equipment as indicated in Section 8.

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8.2. Engineering Controls

8.2.1. Engineering Controls: Special ventilation is not required when using these products in normal use scenarios. Ventilation is required if there is leakage from the cell or battery.

8.2.2. Individual Protection Measures

- 8.2.2.1. Eye and Face protection: Eye protection is not required when handling cells or batteries during normal use. Wear safety glasses/goggles if handling a leaking or ruptured cell or battery.
- 8.2.2.2. Skin (Hand) protection: Hand protection is not required when handling the cell or battery during normal use. PVC gloves are recommended when dealing with a leaking or ruptured cell or battery.
- 8.2.2.3. Skin (clothing) protection: Skin protection is not required when handling the cell or battery during normal use. Wear long sleeved clothing to avoid skin contact if handling a leaking or ruptured cell or battery. Soiled clothing should be washed with detergent prior to re-use.
- 8.2.2.4. Respiratory protection: During routine operation, a respirator is not required. However, if dealing with an electrolyte leakage and irritating vapors are generated, an approved half face inorganic vapor and gas/acid/particulate respirator is required.
- 8.2.2.5. Thermal Protection: Not applicable.
- 8.2.2.6. Other Protective Equipment: Have a safety shower or eye wash station readily available.
- 8.2.3. Hygiene Measures: Do not eat, drink or smoke in work areas. Avoid storing food, drink or tobacco near the product. Practice and maintain good housekeeping.
- 8.2.4. Environmental exposure controls: Avoid release to the environment.

Respiratory Protection	Hand Protection	Eye Protection	Other
			
In all fire situations, use self-contained breathing apparatus.	In the event of leaking or ruptured cells or batteries, wear gloves.	Safety glasses are recommended in case of leaking or ruptured cells or batteries.	In the event of leaking or ruptured cells or batteries, wear protective clothing.

Table 4

9. Physical and Chemical Properties

Physical State:	Solid, Sealed Unit	Vapor Pressure (mm Hg @ 20°C):	Not Applicable
Appearance:	Cell or Battery Pack	Vapor Density:	Not Applicable
pH:	Not Applicable	Solubility in Water:	Insoluble
Relative Density:	Not Applicable	Water/Oil distribution coefficient:	Not Applicable
Boiling Point:	Not Applicable	Odor Type:	Odorless
Freezing Point:	Not Applicable	Odor Threshold:	Not Applicable
Stability:	Not Applicable	Evaporation Rate:	Not Applicable
Flammability Properties:	Not Applicable	Auto Ignition Temperature (°C):	Not Applicable
Flash Point and Method (°C):	Not Applicable	Flammability Limits (%):	Not Applicable
Octanol/Water Partition Coefficient:	Not Applicable	Decomposition Temperature:	90°C

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10. Stability and Reactivity

10.1. Stability and Reactivity

- 10.1.1. Reactivity: The cells or batteries do not pose any further reactivity hazards other than those listed in the following sub-sections.
- 10.1.2. Chemical Stability: The cells or batteries are stable under normal conditions of use, storage and transport.
- 10.1.3. Possibility of hazardous reactions: Keep away from water, strong oxidizing agents, strong reducing agents, strong acids and strong alkalis. Reaction of the leakable electrolyte materials with water may produce flammable and explosive hydrogen gas as well as corrosive hydrogen fluoride gas. Hazardous polymerization does not occur.
- 10.1.4. Conditions to avoid: Avoid exposing the cells or batteries to fire or temperatures above 80°C. Do not disassemble, crush, short circuit, puncture, immerse in liquid, burn, expose to flame or install with incorrect polarity. Avoid mechanical, physical or electrical abuse.
- 10.1.5. Incompatible materials: Do not immerse in water or other high conductivity liquids.
- 10.1.6. Hazardous decomposition products: May decompose to produce hydrogen fluoride, phosphorus oxides, sulfur oxides, sulfuric acid, lithium hydroxide, carbon monoxide and carbon dioxide.
- 10.2. Links to other Sections
- 10.2.1. For information on Hazards, see Section 2 of this SDS
- 10.2.2. For information on fighting fires, see Section 5 of this SDS
- 10.2.3. For information on accidental release, see Section 6 of this SDS
- 10.2.4. For information on handling and storage, see Section 7 of this SDS
- 10.2.5. For information on disposal, see Section 13 of this SDS

11. Toxicological Information

11.1. Information on toxicological effects:

The hazardous components of the cell or battery are contained within a sealed unit. Under recommended use conditions, the electrode materials and liquid electrolyte are non-reactive provided that the cell or battery integrity remains and the seals remain intact. The potential for exposure should not exist unless the battery leaks, is exposed to high temperature or is mechanically, electrically or physically abused/damaged. The following toxicology data is in respect to if a person comes into contact with the electrolyte.

11.2. Acute Toxicity:

- 11.2.1. Swallowed: The electrolyte contained within the cell or battery is a corrosive liquid. Ingestion of this electrolyte would be harmful. Swallowing may result in nausea, vomiting, diarrhea, abdominal pain and chemical burns to the gastrointestinal tract. During normal usage ingestion should not be a means of exposure.
- 11.2.2. Eye: The electrolyte contained within the cell or battery is a corrosive liquid and it is expected that it would cause irreversible damage to the eyes. Contact may cause corneal burns. Effects may be slow to heal after eye contact. Correct handling procedures incorporating appropriate eye protection should minimize the risk of eye irritation.
- 11.2.3. Skin: The electrolyte contained within the cell or battery is a corrosive liquid and it is expected that it would cause skin burns or severe irritation to the skin if not washed off immediately. Correct handling procedures should minimize the risk of skin irritation. People with pre-existing skin conditions, such as dermatitis, should take extreme care so as not to exacerbate the condition.
- 11.2.4. Inhaled: Inhalation of vapors from a leaking cell or battery is expected to cause severe irritation of the mouth and upper respiratory tract with a burning sensation, pain, burns and inflammation in the nose and throat; there may also be coughing or difficulty breathing.

11.3. Skin Corrosion/Irritation: The electrolyte contained within the cell or battery is classified as a corrosive liquid and is expected to exhibit Dermal Corrosivity/Irritation.

11.4. Serious Eye Damage/Irritation: The electrolyte contained within the cell or battery is classified as a corrosive liquid and is expected to exhibit serious Damage/Corrosity.

11.5. Respiratory or Skin Sensitization: The electrolyte contained within the cell or battery is not expected to be a skin sensitizer according to OECD test 406, based on the available data and the known hazards of the components. The electrolyte contained within the battery is not expected to be a respiratory tract sensitizer, based on the available data and the known hazards of the components.

11.6. Germ Cell Mutagenicity: The electrolyte contained within the cell or battery is not expected to be mutagenic according to test such as OECD tests 471, 475, 476 and 479, based on the available data and the known hazards of the components.

11.7. Carcinogenicity: The electrolyte contained within the cell or battery is not expected to be a carcinogen. The cathode contains Cobalt and Nickel components. These components are classified as IARC 2B - possibly carcinogenic to humans, however they do not pose a threat when contained in the cell or battery sealed unit.

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- 11.8. **Reproductive Toxicity:** The electrolyte contained within the cell or battery is not expected to be a reproductive hazard according to test such as OECD tests 414 and 421, based on the available data and the known hazards of the components.
- 11.9. **Specific Target Organ Toxicity (STOT) – Single Exposure:** The electrolyte contained within the cell or battery is corrosive and is expected to cause respiratory irritation by inhalation. Inhalation of vapors may lead to severe irritation of the mouth and upper respiratory tract with a burning sensation, pain, burns and inflammation in the nose and throat; there may also be coughing or difficulty breathing.
- 11.10. **Specific Target Organ Toxicity (STOT) – Repeated Exposure:** The cells or batteries are not expected to cause organ damage from prolonged or repeated exposure according to tests such as OECD tests 410 and 412, based on the available data and the known hazards of the components.
- 11.11. **Aspiration Hazard:** The cells or batteries are not classified as an aspiration hazard, based on the available data and the known hazards of the components. However, due to the corrosive nature of the product if swallowed, do NOT induce vomiting. If vomiting has occurred after ingestion the person should be observed to ensure that aspiration into the lungs has not occurred and assessed for chemical burns to the gastrointestinal and respiratory tracts.
- 11.12. **Other Information:** No additional data is available.
- 11.13. **Links to other sections:**
- 11.13.1. For information on hazards, see Section 2 of this SDS
 - 11.13.2. For information on first aid, see Section 4 of this SDS
 - 11.13.3. For information on accidental release, see Section 6 of this SDS
 - 11.13.4. For information on handling and storage, see Section 7 of this SDS
 - 11.13.5. For information on exposure controls and personal protection, see Section 8 of this SDS
 - 11.13.6. For information on the physical and chemical properties, see Section 9 of this SDS
 - 11.13.7. For information on disposal, see Section 13 of this SDS
 - 11.13.8. For information on transport hazard classes, see Section 14 of this SDS
 - 11.13.9. For information on regulatory, see Section 15 of this SDS

12. Ecological Information

- 12.1. **Ecotoxicity:** The sealed cell or battery does not pose an Ecotoxicity hazard. Cells or batteries under normal use conditions pose no ecotoxicity hazard. In the case of a broken or damaged cell or battery and leakage of the electrolyte, it will react with water and potentially cause damage to flora and fauna if not disposed of properly. See Section 13 of this SDS for proper disposal considerations.
- 12.2. **Persistence and degradability:** There is currently no data available.
- 12.3. **Bio accumulative potential:** There is currently no data available.
- 12.3.1. **Partition coefficient n-octanol/water (log Kow):** Not applicable
- 12.3.2. **Bio concentration factor (BCF):** Not applicable
- 12.4. **Biodegradability:** There is currently no data available.
- 12.5. **Results of PBT and vPvB assessment:** Not a PBT or vPvB substance or mixture.
- 12.6. **Other adverse effects:** Solid cells and batteries released into the natural environment will slowly degrade and may release harmful or toxic substances. Cells and batteries are not intended to be released into water or on land but should be disposed or recycled according to local regulations. See Section 13 of this SDS for Disposal Considerations.
- 12.7. **Links to other sections:**
- 12.7.1. For information on accidental release, see Section 6 of this SDS
 - 12.7.2. For information on disposal, see Section 13 of this SDS
 - 12.7.3. For information on transport hazard classes, see Section 14 of this SDS

13. Disposal Considerations

- 13.1. **Waste treatment methods:** Cell and battery recycling is encouraged. Cells and batteries should not be released into the environment, do NOT dump into any sewers, on the ground or into any body of water. Do not dispose of in fire. Used cells and batteries should be stored in their original packaging, a plastic bag or with their terminals/contacts taped, to minimize the potential for short-circuiting to occur. Cells and batteries should be fully discharged before being sent for recycling. Do not store used cells or batteries near heat sources, chemicals or food. Do not store or transport used lithium-ion cells or batteries with lead acid batteries as they have different regulatory requirements. Do not break open or damage lithium-ion cells or batteries prior to disposal. Care should be taken at all times to ensure that used cells or batteries are not damaged during storage or transport. Store material for disposal as indicated in Section 7 Handling and Storage.

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- 13.2. **Classification of the waste to comply with Waste Regulations:**
- 13.2.1. **Canada:** Spent cells and batteries are not considered hazardous waste. Cells and batteries involved in a fire may be considered to be hazardous waste. Dispose of in accordance with local, provincial and federal laws and regulations. Consult the Canadian Environmental Protection Act for additional details.
- 13.2.2. **USA:** Spent cells and batteries are not considered hazardous waste. Cells and batteries involved in a fire may be considered to be hazardous waste. Dispose of in accordance with local, state and federal laws and regulations. Consult universal/hazardous waste regulations for further information regarding disposal of spent batteries. If a cell or battery is leaking/broken open, consult hazardous waste regulations under US Environmental Protection Agency's Resource Conservation and Recovery Act (RCRA). Also, consult state and local regulations for further disposal requirements.
- 13.2.3. **Australia:** Spent cells and batteries must be taken for recycling or disposal at an appropriate collection depot by suitably licensed contractors in accordance with government regulations.
- 13.2.4. **EU:** Waste must be disposed of in accordance with relevant EC Directives and national, regional and local environmental control regulations. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.
- 13.2.4.1. **EU Waste Code:** 16 06 05 – other batteries and accumulators.
- 13.2.5. **Taiwan:** Cells and batteries are not considered hazardous waste. Cells and batteries should be recycled at an appropriate collection site in accordance with government regulations.
- 13.2.6. **Japan:** Recycling of spent lithium-ion cells and batteries is regulated by the Wastes Disposal and Public Cleaning Law and the Law for Promotion of Effective Utilization of Resources, cells and batteries should be recycled at a JBRC (Japan Battery Recycling Center) approved facility.
- 13.3. **Classification of the waste to comply with Transport Regulations:** Spent lithium-ion cells and batteries are not considered hazardous waste. Lithium-ion cells and batteries involved in a fire may be considered to be hazardous waste and should be classified as such. Damaged lithium-ion cells and batteries are explicitly prohibited from transport by air.
- 13.4. **Classification of Packaging materials:** Unsealed excess packaging should be disposed of according to any applicable recycling regulations and is not considered hazardous waste. Sealed packaging or packaging exposed to the interior of a lithium-ion cell or battery pack should be considered hazardous waste and disposed of according to local hazardous waste rules and regulations.

14. Transport Information

Lithium-ion cells and batteries are regulated for land, sea and air transportation. It is recommended that Lithium-ion cells and batteries should not be fitted to equipment during transportation. Note: Cells and Batteries must always be protected against short-circuiting during transport. Special precautions should be undertaken when damaged or defective cells and batteries are transported. You must contact the manufacturer before transporting damaged or defective cells and batteries. It is prohibited to carry defective or damaged cells and batteries by air.

E-One Moli Energy cells and batteries are designed to comply with all applicable shipping regulations as prescribed by industry and legal standards which include compliance with the UN Recommendations on the Transport of Dangerous Goods, IATA Dangerous Goods Regulations, US DOT regulations for the safe transport of lithium-ion batteries, the International Maritime Dangerous Goods Code and the Canadian Transport of Dangerous Goods regulations.

- 14.1. **UN Number:** 3480 or 3481
- 14.2. **UN Proper Shipping Name:** 3480 – Lithium Ion Batteries
3481 – Lithium Ion Batteries Contained in Equipment
3481 – Lithium Ion Batteries Packed with Equipment
- 14.3. **Transport Hazard Class(es):**
- | | |
|--------------------------|---|
| Class: | 9 |
| Subsidiary Risk: | 0 |
| Label(s): | |
| Hazard No. (ADR): | E |
| Tunnel Restriction code: | |
- 14.4. **Packing Group:** II
- 14.5. **Environmental hazards:**
- | | |
|-------------------|----|
| Marine Pollutant: | No |
|-------------------|----|
- 14.6. **Special Precautions for user:** Read safety instructions, SDS and emergency procedures before handling
- 14.7. **Hazchem Code:** 4W
- 14.8. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not Applicable

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- 14.9. **Model Information**
- 14.9.1. **Land (ADR):** 3480 – 188, 230, 310, 348 (Special packaging instruction P003 applies)
3481 – 188, 230, 248, 360 (Special packaging instruction P003 applies)
- 14.9.2. **Land (RID):** 3480 – 188, 230, 310, 348 (Special packaging instruction P003 applies)
3481 – 188, 230, 248, 360 (Special packaging instruction P003 applies)
- 14.9.3. **Land (ADN):** 3480 – 188, 230, 310, 348 (Special packaging instruction P003 applies)
3481 – 188, 230, 248, 360 (Special packaging instruction P003 applies)
- 14.9.4. **Sea (IMDG):** 188, 230, 310 (Special packaging instruction P003 applies)
Ems F-A, S-A; Stowage Category A
- 14.9.5. **Air (IATA):** ERG Code: 9033
A88, A89, A154, A164, A183 (Packing Instruction 905, 906, 907)
ERG Code:
Lithium ion cell or batteries - Lithium ion batteries in compliance with Section of PI 905
Lithium ion cell or batteries packed with equipment - Lithium ion batteries in compliance with Section of PI 906
Lithium ion cell or batteries contained in equipment - Lithium ion batteries in compliance with Section of PI 907
The consignment is not classified as Dangerous Goods under the current edition of the IATA 50th Edition, Dangerous goods regulation and all applicable carrier and government regulations

15. Regulatory Information

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- 15.1.1. **International Information:**
- 15.1.1.1. **Montreal Protocol:** Not applicable
 - 15.1.1.2. **Stockholm Convention:** Not applicable
 - 15.1.1.3. **Rotterdam Convention:** Not applicable
 - 15.1.1.4. **Basel Convention:** Not applicable
 - 15.1.1.5. **Marpol Convention:** Not applicable
 - 15.1.1.6. **UN Transportation of Dangerous Goods:** All cells and batteries have passed the applicable testing
- 15.1.2. **Canadian Federal Regulations:**
These products have been tested in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
WHMIS Classification: Not Controlled, manufactured article.
New Substance Notification Regulations: Lithium hexafluorophosphate is listed on the Non-Domestic Substance List (NDSL). All other ingredients in the product are listed, as required, on Canada's Domestic Substance List (DSL).
National Pollutant Release Inventory (NPRI) Substances: These products do not contain any NPRI chemicals.
- 15.1.3. **United States Federal and State Regulations:**
TSCA Status: All ingredients in these products are listed on the TSCA inventory
CNSHA: These products do not meet criteria as per Part 1810.1200, manufactured article
SARA EPA Title III: None
Sec. 302/304: None
Sec. 311/312: None
Sec. 313: None
CERCLA RC: None
- 15.1.4. **Australia and New Zealand**
BSUMSP: Not applicable
AICS: All ingredients are on the AICS list.
HSNO Approval number: Not applicable
HSNO Group Title: Not applicable
NOHSC: 18068 Risk Phrases: R34 - Causes Burns
NOHSC: 10068 Safety Phrases:
S1 - Keep locked up
S2 - Keep out of reach of children.
S23 - Do not breathe vapor.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27/28 - After contact with skin, take off immediately all contaminated clothing and wash immediately with plenty of water.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S50 - Dispose of this material and its container at hazardous waste or special waste collection point.
S62 - If swallowed, DO NOT induce vomiting; seek medical advice immediately and show this container or label

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S64 - If swallowed, rinse mouth with water (Only if the person is conscious)

- 15.1.5. **EC Classification for the Substance/Preparation:**
These products are not classified as hazardous according to Regulation (EC) No 1272/2008
Keep out of the reach of children.
- 15.1.5.1. **EU Regulations:**
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer, Annex I: Not listed
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer, Annex II: Not listed
Regulation (EC) No 850/2004 on persistent organic pollutants, Annex I as amended: Not listed
Regulation (EC) No 606/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended: Not listed
Regulation (EC) No 606/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended: Not listed
Regulation (EC) No 606/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended: Not listed
Regulation (EC) No 606/2008 concerning the export and import of dangerous chemicals, Annex V as amended: Not listed
Regulation (EC) No 1005/2009, REACH Article 59(10) Candidate List as currently published by ECHA: Not listed
- 15.1.5.2. **EU Authorizations:**
Regulation (EC) No 1007/2009, REACH Annex XIV Substances subject to authorization, as amended: Not listed
- 15.1.5.3. **EU Restrictions on use:**
Regulation (EC) No 1007/2009, REACH Annex XVII Substances subject to restriction on marketing and use as amended:
Aluminum (CAS 7429-90-5)
Directive 2004/37/EC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding: Not listed
- 15.1.5.4. **Other EU Regulations**
Directive 98/24/EC (Seveso II) on the control of major accident hazards involving dangerous substances: Not listed
Directive 94/33/EC on the protection of young people at work: Not listed
This Safety Data Sheet complies with the requirements of Regulation (EC) No 1007/2009
- 15.1.6. **Japanese Regulations**
Japanese Industrial Standards (JIS) JIS Z 7253 2012
Waste disposal and public cleaning law
Law for Promotion of Effective Utilization of Resources
- 15.1.7. **Taiwanese Regulations**
Regulation of Labeling and Hazard Communication of Dangerous and Harmful Materials: Labeling requirements and other relevant provision of chemicals, this product is not classified as dangerous goods
Toxic Chemicals Substance Control Law: Not listed
CNS 1030019 Safety of primary and secondary lithium cells and batteries during transport.
- 15.1.8. **Chinese Regulations**
General Rule for Classification and Hazard Communication of Chemicals (GB 13690-2009): Specifies the classification, labeling and hazard communication of chemicals in compliance with the GHS standard for chemical production sites and labeling of consumer products.
General Rule for Preparation of Precautionary Labels for Chemicals (GB 15258-2009): Specifies the relevant application methods of precautionary labels for chemicals.
Safety Data Sheet for Chemical Products Content and Order of Sections (GB/T 16483-2008)
- 15.1.9. **Other Regulations**
None listed
- 15.2. **Chemical Safety Assessment:** Not applicable

16. Other Information

- Preparation Date: May 1st, 2015
Prepared by: E-One Moli Energy (Canada) Limited, 20,000 Stewart Crescent, Maple Ridge, British Columbia, Canada V2X 9E7.
- Revisions:
- | |
|--|
| AA: (October 2014) First Release |
| AB: (January 2015) |
| Document wide: Minor corrections to formatting and tab spacing |
| Section 1.3, added factory address |
| Section 1.4, indicated collect number to call |

Section 2.0, Table 1 – added IATA, Taiwan, Japan and China entries
 Section 3.1, added Taiwan, Japan and China entries
 Section 13.2, added Taiwan and Japan disposal information subsections
 Section 13.4, added classification of packaging materials
 Section 15, added Japanese, Taiwanese and Chinese regulatory information
 Section 16, updated Acronyms, added Japanese, Taiwanese and Chinese references to the disclaimer
 (March 2015)
 Item 14.9.5, added the transport by air detail information
 (May 2015)
 Section 3.1, Table 3, spelling and CAS number correction
 (May 2015)
 Section 16, added cell and pack capacity table to include watt hour rating and ELC

Cell and pack capacities and watt hour ratings:

Model Number	Nominal Voltage (V)	Typical Capacity (Ah)	Watt Hour Rating (Wh) (Volts x Ah)	Equivalent Lithium Content (g) (cell Ah x 0.3 x #cells)
HR18650B/7B/BC	3.60V	1.50Ah	5.40Wh	0.45g
HR28700A	3.75V	2.80Ah	10.50Wh	0.84g
ICP103460B	3.70V	1.80Ah	6.66Wh	0.54g
ICP103460CA	3.70V	1.80Ah	7.25Wh	0.58g
ICP103460DA	3.70V	2.20Ah	8.14Wh	0.66g
ICR18650H	3.70V	2.20Ah	8.14Wh	0.66g
ICR18650J	3.70V	2.37Ah	8.77Wh	0.71g
ICR18650K	3.70V	2.60Ah	9.82Wh	0.78g
ICR18650M	3.70V	2.60Ah	10.36Wh	0.84g
HR18650B	3.60V	2.25Ah	8.10Wh	0.66g
HR18650BL	3.60V	2.65Ah	7.80Wh	0.66g
HR18650BH	3.60V	2.20Ah	7.92Wh	0.66g
HR18650C	3.60V	2.05Ah	7.38Wh	0.62g
HR18650E	3.60V	1.40Ah	6.32Wh	0.42g
HR28700A	3.60V	2.80Ah	11.02Wh	0.87g
HR18650A	3.60V	2.55Ah	9.18Wh	0.77g
MCR1821J	7.40V	2.40Ah	17.76Wh	1.44g (2 cells)
ME202CJ	11.10V	7.20Ah	79.32Wh	6.48g (9 cells)
ME202EK	11.10V	7.80Ah	86.58Wh	7.02g (9 cells)

Acronyms:

SUSMP Standard for the Uniform Scheduling of Medicines and Poisons
 CAS Number Chemical Abstracts Service Registry Number
 EINECS European Inventory of Existing Commercial Chemical Substances
 UN Number United Nations Number
 OSHA Occupational Safety and Health Administration
 ACGIH American Conference of Governmental Industrial Hygienists
 IMDG International Maritime Dangerous Goods
 IATA International Air Transport Association
 IUCLID International Uniform Chemical Information Database
 RTECS Registry of Toxic Effects of Chemical Substances
 R-Phrase Risk Phrases
 S-Phrase Safety Phrases
 %W/W Percent weight for weight
 OECD Organization for Economic Co-Operation and Development
 ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail
 HAZCHEM Code Emergency action code of numbers & letters which gives information to emergency services
 NOHSC National Occupational Health and Safety Commission
 AICS Australian Inventory of Chemical Substances
 TWA Time-Weighted Average
 STEL Short Term Exposure Limit
 HSN0 Hazardous Substances and New Organisms Act 1996
 GHS Globally Harmonized System of Classification and Labelling of Chemicals
 METI Japanese Ministry of Economy, Trade and Industry

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BSMI Taiwan Bureau of Metrology and Inspection
 JIS Japanese Industrial Standard

Literature References and Sources of Data:

OECD Guidelines for Testing of Chemicals
 Annex I: OECD Test Guidelines for Studies Included in SIDS
 Manual for the Assessment of Chemicals Chapter 2 Data Gathering
 International Toxicity Testing Guidelines
 Hazardous Substance Information System - Guidance Material for Hazard Classifications
 Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice
 Model Work Health and Safety Regulations
 Model Work Health and Safety Regulations - Transitional Principles
 Workplace Exposure Standards for Airborne Contaminants
 Australian Dangerous Goods Code 7th Edition
 Approved Criteria for Classifying Hazardous Substances [NOHSC 1008 (2004)]
 Guidance on the Classification of Hazardous Chemicals under the WHS Regulations
 Assigning a Hazardous Substance to a Group Standard
 User Guide to the HSN0 Thresholds and Classifications
 Summary User Guide to the HSN0 Thresholds and Classifications of Hazardous Substances
 Correlation between GHS and New Zealand HSN0 Hazard Classes and Categories
 HSN0 Control Regulations
 Record of Group Standard Assignment
 Labelling of Hazardous Substances Hazard and Precautionary Information
 Thresholds and Classifications under the Hazardous Substances and New Organisms Act 1996
 Workplace Exposure Standards and Biological Exposure Indicators
 Handheld Battery Recycling - Guidelines for Lithium Batteries (Australian Battery Recycling Initiative)
 Handheld Battery Recycling - Guidelines for Transport (Australian Battery Recycling Initiative)

Disclaimer: This Safety Data Sheet was prepared in accordance with criteria and requirements of the Hazardous Products Act and the Controlled Products Regulations (Canada), SafeWork Australia (Australia), European Union Commission Directives (EU/EC), Japanese Industrial Standard (JIS), Taiwan Bureau of Metrology and Inspection (BSMI), China Regulation GB/T 16483-2008 and the Occupational Safety and Health Administration (OSHA) using information provided by the manufacturer and other sources. The information in this Safety Data Sheet is offered for your consideration and guidance when exposed to these products.

E-One Moli Energy (Canada) Limited expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this Safety Data Sheet does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed or altered in any way without the expressed knowledge and permission of E-One Moli Energy (Canada) Limited.

E-One Moli Energy (Canada) Ltd

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May 2015



Amperex Technology Limited

新龍源科技有限公司

3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China

香港新龍源有限公司 9 号海城路 3503 室 新龍源 3503 室

Tel: 852-2498-0908 Fax: 852-2498-1101 http://www.ATLbattery.com

MATERIAL SAFETY DATA SHEET

Issue: 2015-A

DOC No: 2015-A-056-PH3

1. Product & Company Identification

Product	Lithium Ion Battery	Model Name:	PH3
Description	(Rechargeable type)		
Manufacturer	Amperex Technology Limited	Approximate Weight:	315.0g
Capacity	4.68Ah	Equivalent Lithium content	1.344g
Nominal voltage	15.2V	Nominal power	68Wh
UN No.	3180/381	Proper Shipping Name	Lithium Ion Battery
Address	3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China		
Telephone:	852-2498-0908	Fax	852-2498-1101

2. Composition / Information on Ingredients

Important note: The battery should not be opened or harmed. Exposure to the ingredients contained within or their combustion products could be harmful.

MATERIAL OR INGREDIENT	PLI (OSHA)	PLV (ACGIH)	%wt.
Graphite	5 mg/m ³ TWA (respirable fraction) 15 mg/m ³ TWA (total dust)	2 mg/m ³ TWA (respirable fraction)	7-25
Lithium cobalt	0.1 mg/m ³	0.02 mg/m ³	15-10
Lithium hexafluorophosphate	None established	None established	0-5
Acetylene black	3.5 mg/m ³ TWA (as carbon black)	3.5 mg/m ³ TWA (as carbon black)	0-1
Diethyl carbonate	None established	None established	0-15
Dimethyl carbonate	None established	None established	0-15
Diethyl carbonate	None established	None established	0-15

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(CAS# 823-33-0)

Propylene Carbonate

None established

None established

0-15

(CAS# 108-32-7)

Ethylene Carbonate

None established

None established

0-15

(CAS# 96-45-1)

3. Hazardous Identification

Chemical Nature: White color solid

CAS-No/EINECS NO.: N/A

INCI CIPA-Description: Lithium ion polymer rechargeable battery series

Ingestion: No effect under routine handling and use.Inhalation: No effect under routine handling and use.Skin contact: No effect under routine handling and use.Eye contact: No effect under routine handling and use.Skin absorption: No effect under routine handling and use.Recorded as carcinogen: Not applicable

4. First Aid Measures

Under normal conditions of use, the battery is hermetically sealed.

Ingestion: Swallowing a battery can be harmful.

Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

Inhalation: Contents of an open battery can cause respiratory irritation. Inhalation of vapors may cause irritation of the upper respiratory tract and lungs. Provide fresh air and seek medical attention.Skin Absorption: Ethylene carbonate, diethyl carbonate and dimethyl carbonate may be absorbed through the skin causing localized inflammation.Skin Contact: Contents of an open battery can cause skin irritation and/or chemical burns. Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs

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3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
香港新能源有限公司 9 号海星路电视大楼 3503 号单元
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MATERIAL SAFETY DATA SHEET

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or if irritation persists, seek medical attention.

Eye Contact: Contents of an open battery can cause severe irritation and chemical burns. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

Note: Acetylene black and cobalt compounds are listed as possible carcinogens by the International Agency for Research on Cancer (IARC).

5. Fire Fighting Measures

5.1 Risk Analysis (electrical shock, fire, explode, pollution)

There was no electrical shock risk for single cell, or battery module which voltage was less than 50V DC (the safety voltage). But if the pack had the voltage was bigger than 50V DC, the electrical shock shall be protected.

During the shipment or testing process for L10 Pack or Module, there was danger factors like drop, crush, broken, metal short circuit, liquid immersion, the factors would lead the risk like electrical shock, catch fire. If pack was in well sealed bus, there was gas explode risk; if the pack was in big room or fans, there was not explode risk. The released liquid was the environment pollution risk.

5.2 Material prepare & people training

- Water based spray fire extinguisher:** 1 set of 9L or 2 sets of 6L water spray fire extinguishers per each 500KWh L10 pack or Modules. Or you could use portable electrical water sprays or hang type water spray fire extinguisher (Jintu 1). The water based spray fire extinguisher could be used for fire type ABCDE solid (A), flash point >60°C liquid (B), gas (C), <36Kv electrical (E) fire. It was recommended to prepare water based sprays in the trucks.
- Water protection sets:** raincoat, galoshes, rubber gloves, Plastic rollars, Rags.
- PPE:** breathing mask, safety glasses, face mask, gloves for high temperature.
- Smoke escape:** fans in wall one per 20m or portable fans in rooms. Keep gas exchange hole in trucks.
- Gas explode tough:** open condition for devices & rooms. Some devices like high or low temperature ovens must be sealed, there was one copper film with the diameter 200nm & thickness 8um as the safety vent. The wall should have one fan per 20m, ≥5000m³ per hour for flow rate.

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3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
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6) **Neutralized material:** prepare 10kg Ca(OH)₂ powder per 500KWh L10 pack or modules, it was used for neutralized for release electrolyte. Because electrolyte mix with water, 8% HF would be created.

7) **Voltage measure:** Multimeter Please physical block the current measure function, the mistake would lead instrument exploding.

8) **People training:** (a) turn on fans or portable fans for smoke escape. (b) wear the water protection sets → use water spray fire extinguishers → dry by cloths with rubber gloves → insulated by plastic film. (c) neutralized by Ca(OH)₂ or NaOH for released electrolyte. (d) use multimeter to measure voltage. Take care of the mistake.

5.3 Fire Extinguisher Flow Chart

- Alarm if you found the smoking or burning.
- Wear PPE. (Breath mask, face mask. If using water, PPE should include the raincoat, galoshes, rubber gloves).
- Turn Off power supply in devices or power supply.
- Use any fire extinguishers for solid material fire, the recommended sequence was water or mist water, sand, fire extinguisher blanket, CO₂, powder.
- Smoke Escape by turn on fans or open air environment
- Dry and neutralize. Drying by fans. Neutralization by Ca(OH)₂ powder if water was used.

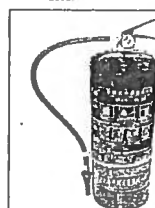


Figure 1 water based fire extinguisher
(Could be used for 36KV electrical fire)

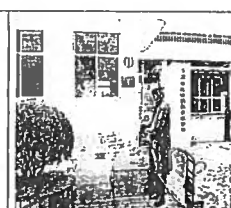


Figure 2 water sprayers to fire extinguisher
(Wear PPE to avoid electrical shock)

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6. Accidental Release Measures

On hand: Place material into suitable containers and call local fire/police department

In water: Low electrical shock risk when EV or battery pack in water, GM also shared the information. But H₂ gas was released by the electrolyzed water, you should keep good air flow to avoid the H₂ gas accumulated to prevent hydrogen explosion in enclosed space. If possible, remove from water and call local fire/police department.

7. Handling & Storage

One of the major risks associated with the transport of batteries and battery-powered equipment is short-circuit of the battery as a result of the battery terminals coming into contact with other batteries, metal objects, or conductive surfaces. Packaged batteries or cells must be separated in a way to prevent short circuits and damage to terminals. They must be packed in a strong outer packaging or be contained in equipment.

Handling: Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided, however, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin. Sources of short circuits include jumbled batteries in bulk containers, coins, metal jewelry metal covered tables, or metal belts used for assembly of batteries in devices. To minimize risk of short-circuiting, the protective case supplied with the battery should be used to cover the terminals when transporting or storing the battery. Do not disassemble or deform the battery. Should an individual cell within a battery become ruptured, do not allow contact with water. When operators handle the battery which voltage more than 50v, they must wear the insulation protection PPE.

Storage: The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Stored in a cool, dry, and well ventilated area. Elevated temperatures can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames.

8. Exposure Control/Personal Protection

Engineering Control: Keep away from heat and open flame. Stored in a cool dry place.

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香港新能源有限公司 9 号海星路电视大楼 3503 号单元
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Personal Protection:

Respiratory Protection: Not necessary under normal conditions.

Eye/Face Protection: Not necessary under normal conditions. Wear safety glasses with side shields if handling an open or leaking battery.

Gloves: Not necessary under normal conditions. Use neoprene or natural rubber gloves if handling an open or leaking battery.

Foot Protection: Steel toed shoes recommended for large container handling.

9. Physical/Chemical Properties

Physical state	Solid	Solubility in water:	Not Applicable
Color	Not Applicable	Vapor pressure	Not Applicable
Odor	No Odor	Explosion limit	Not Applicable
Flash point	Not Applicable	Auto flammability	Not Applicable
Solubility in ethanol	Not Applicable	Melting Point	Not Applicable
Boiling Point	Not Applicable	Freezing Point	Not Applicable

10. Stability & Reactivity

Stability: Good stability at standard temperature.

Reactivity: None

Avoid contact with water and acids. Hazardous decomposition products: If Al package foil of battery is damaged, the battery should avoid to contact strong oxidizer, acids and high temperature, and the electrolyte will be formed HF.

11. Toxicological information

This product does not elicit toxicological properties during routine handling and use

12. Ecological information

If the battery is scrapped, it should be selected and disposed by professional company

13. Disposal considerations

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Amperex Technology Limited
新龍源科技有限公司
3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
香港新龍源碼頭9號新龍源大樓 3503 字樓
Tel: 852-2408-0908 Fax: 852-2408-1101 <http://www.ATLbattery.com>
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Do not dispose of battery into environment or sewerage. It should be recycled and disposed basing on your local legislation and regulations.

14. Transport Information

14.1 The requirement of air transportation

The lithium battery should according with the International Air Transport Association (IATA DGR 56 edition) requirements for transportation. The battery or cell should be packed and signed as following table (If the package according with PI-965 to PI-967 Section II, it is not classified as dangerous cargo).

UN NO.	Proper Shipping Name	Power/Quantity	Package requirements	Label which need to paste
UN3180	lithium ion batteries	Cells≤20Wh Battery≤100Wh Quantity: ≤2pcs	PI965 Section IB	Class 9 hazard label and lithium battery handling label
		Cell>20Wh Battery>100Wh	PI965 Section IA	Class 9 hazard label
		Cell≤20Wh Battery≤100Wh Quantity: ≤2pcs	PI965 Section II	Lithium battery handling label
UN3181	lithium ion batteries contained in equipment	Cell>20Wh Battery>100Wh	PI967 Section I	Class 9 hazard label
		Cell≤20Wh Battery≤100Wh	PI967 Section II	Lithium battery handling label
UN3481	lithium ion batteries packed with equipment	Cell>20Wh Battery>100Wh	PI966 Section I	Class 9 hazard label
		Cell≤20Wh Battery≤100Wh	PI966 Section II	Lithium battery handling label

Do not damage or mishandle this package. If package is damaged, batteries must be quarantined, inspected, and repacked. Cells and batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport. Waste lithium batteries and lithium batteries being shipped for recycling or disposal are prohibited from air transport unless approved by the appropriate national authority of the State of origin and the State of the operator.

The lithium battery should pass the UN38.3 test, if the battery can not pass the testing, it

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Amperex Technology Limited
新龍源科技有限公司
3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
香港新龍源碼頭9號新龍源大樓 3503 字樓
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can not transport, should redesign. If the battery through the test, for the lithium battery only, follow the UN3480 and the packing requirements for PI965, for the lithium battery which installed in equipment, follow the UN3481 and the packing requirements for PI967.

The lithium battery testing meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.

No	ITEMS	RESULT	REMARKS
1	Altitude simulation	Pass	Test 1 to 5 must be conducted in sequence on the same cell or battery
2	Thermal test	Pass	
3	Vibration	Pass	
4	Shock	Pass	
5	External short circuit	Pass	
6	Impact	Pass	Only for Cell
7	Forced Discharge	Pass	

14.2 The requirement of ocean shipping

According to International Maritime Dangerous Goods Code (IMDG 36th) to transport and according to the requirements of UN NO. 3480/3481 to management the goods, and require class II packaging. Firstly installation: mutual isolation, avoid short circuits. If the package contain more than 24 lithium batteries or more than 12 lithium battery packs, must provide the special program if package damage.

The clause 188 of IMDG require the Watt of lithium ion batteries no more than 100 Wh, and must marked the WHR mino label. Otherwise, the battery and module should packed in a strong outer packaging or be contained in equipment.

The clause 230 of IMDG 36th require the lithium battery testing should meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3

For more information, Call: +86-13860395119

15: Regulatory Information

See ACGIH exposure limits information as noted in Section 3

US: This MSDS meets/exceeds USHA requirements

International: This MSDS conforms to European Union (UN), the International Standards Organization (ISO) and the International Labor Organization (ILO) and as documental in ANSI (American National Standards Institute) Standard Z400.1-1993

Air transportation: Class 9 dangerous goods, require class II packaging. According to Civil aviation industry standard MH/T1020 2009 Lithium Battery Air Transport Standard and

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Amperex Technology Limited
新龍源科技有限公司
3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
香港新龍源碼頭9號新龍源大樓 3503 字樓
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IATA DGR and ICAO. The International transport and commodity inspection is used this standard at the moment (IMDG CODE).

Ocean shipping: Class 9 dangerous goods, require class II packaging. According to International Maritime Dangerous Goods Code to transport and According to the requirements of UN NO 3480/3481 to management the goods.

Land transportation: According to List of Dangerous Goods (GDI 2268)

Avoid electrical shock: According to Standard for Electrical Safety in the Workplace, NFPA-70C.

16. Charging and labeling

Charging: This battery is made to be charged many times. Use an Energizer approved battery charger. Never use a modified or damaged battery charger. A backup charge termination based on time is recommended to prevent overcharging. The charging temperature should be between 0° C and 45° C (32° F and 113° F). The battery pack will be normally warm during charging.

Charging Voltages and Currents: Charging voltages are prevented from exceeding the specified limits by an internal battery protection circuit. Never use a battery that shows signs of a damaged protection circuit or broken case. (Such damage to the protection circuit may be indicated by voltages at the battery terminals outside of their specified ranges.) Adhere to all specified charging and discharging voltages and currents. Do not use battery if its voltage drops below the specified minimum voltage.

Labeling: If the ATL label or package warnings are not visible, it is important to provide a package and/or device label stating.

If the lithium-ion battery or cell transported by air the labeling according the requirement of IATA 56th, the packages should paste relevant labeling (refer to item 14.1 the requirement of air transportation); the lithium battery handling label (Figure 3) is shown as below

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3503, Wharf Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong China
香港新龍源碼頭9號新龍源大樓 3503 字樓
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Figure 3 Lithium battery handling label

If the lithium-ion battery or cell transported by sea the labeling according to IMDG 36th, the requirement as follow,

- Package, do not any indication.
- Need all the UN No
- subassembly, do not any indication.
- Need the I/Q label.

WARNING: CHARGE ONLY WITH SPECIFIED CHARGERS ACCORDING TO DEVICE MANUFACTURER'S INSTRUCTIONS. DO NOT OPEN BATTERY. DISPOSE OF IN FIRE, OR SHORT CIRCUIT - MAY IGNITE, EXPLODE, LEAK, OR GET HOT CAUSING PERSONAL INJURY.

Disposal: Dispose in accordance with all applicable federal, state and local regulations.

17. Other information

The information contained herein is furnished without warranty of any kind. Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 06/05/17	Name of HWMC Receiving Person Harrison / Hernandez				
Section A: Container Information					
Container No.(s): 2017-0467		Waste Profile [X] Awaiting Analysis []		Waste Profile Number: TC 17 138 01	
Accumulation Start Date: 06/05/17		MSDS []			
Description/Nomenclature:	Liquid []	Solid [X]	Aerosol []	Cylinder []	Material to Waste []
Petroleum contaminated soil from Thurgood Horse Movie					
Type/Size of Container (DOT Code):				Gross Weight (Lbs):	
DM [] Size:				27,840	
DF [] Size:					
Other [X] (state type & size): Rolloff					
Container Received is Acceptable: Yes [X] No []		Container Supplied by HWMC: Yes [X] No []		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project TC Thurgood Canyon Movie Site					
Point of Contact: Cathy Giblin		Signature:		Telephone: 575-678-3541	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) []	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895#	22895 PAD []
Container Moved To: On (Date):				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs: Min:		Container Cost:	
CLIN ID: 89967		Cost Per Lb: .14		Type:	Qty: \$
Total: 3385.20				Type:	Qty: \$
1348 No.: 1426001					
Disposal Cost: 3385.20		Customer APC/JONO:			
Delivery Order No: 0678		Line Item No.: 1		Manifest No.: 008734333FLE	
Comments:					

20170467

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Test Center
.... Thurgood Canyon Movie
Bldg. Number: N/A
SAP ID: NA
DODAAC: WM0M58

●Waste Profile●

TC 17 138 01
Replaces:
Contact: Cathy Giblin
Phone: 575-678-3541

1. Name of Waste: Petroleum contaminated soil from Thurgood Horse Movie
2. Clin: 9907
3. Generating Process: movie production (vehicles)
4. Projected Volume: 90000 lbs Mode of Collection: Other: Roll Off
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

●RCRA Characteristics●

●Chemical/Material Composition●

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

Component	Concentration/Range
1,2,4-Trimethylbenzene	0.051 mg/L
Barium	1.1 mg/L
DRO (C10-C28)	6900 mg/Kg
GRO (C6-C10)	110 mg/Kg
Selenium	0.018 mg/L
Total Xylenes	0.025 mg/L

●Shipping Information●

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See Test America Chemistry Laboratory results for sample numbers 560-67711-1 and 490-127291-2.

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Digitally signed by HARRISON.JON.EDWARD.140852582
DN: cn=HARRISON.JON.EDWARD.140852582, o=USDA,
c=US, email=HARRISON.JON.EDWARD.140852582@usda.gov

Date
18-May-17

Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-170426-1414-RollOff

Lab Sample ID: 560-67711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8260B Analysis Batch: 560-139178 Instrument ID: VGCMS#1
 Prep Method: 5030B Prep Batch: N/A Lab File ID: 05041725.D
 Dilution: 5.0 Leach Batch: 560-139142 Initial Weight/Volume: 5 mL
 Analysis Date: 05/04/2017 2253 Final Weight/Volume: 5 mL
 Prep Date: 05/04/2017 2253
 Leach Date: 05/03/2017 1514

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Acetone	0.025	U	0.025	0.25	
Benzene	0.0017	U	0.0017	0.050	
Bromobenzene	0.00064	U	0.00064	0.025	
Bromochloromethane	0.0011	U	0.0011	0.025	
Bromodichloromethane	0.00088	U	0.00088	0.025	
Bromofom	0.0025	U	0.0025	0.13	
Bromomethane	0.0020	U	0.0020	0.025	
Methyl tert-butyl ether	0.0010	U	0.0010	0.025	
2-Butanone (MEK)	0.0050	U	0.0050	0.10	
n-Butylbenzene	0.0078	J	0.0010	0.025	
sec-Butylbenzene	0.0043	J	0.0015	0.025	
tert-Butylbenzene	0.0010	U	0.0010	0.025	
Carbon disulfide	0.0025	U	0.0025	0.025	
Carbon tetrachloride	0.0013	U	0.0013	0.025	
Chlorobenzene	0.00068	U	0.00068	0.025	
Chloroethane	0.0020	U	0.0020	0.025	
Chloroform	0.0010	U	0.0010	0.025	
Chloromethane	0.0020	U	0.0020	0.025	
2-Chlorotoluene	0.00078	U	0.00078	0.025	
4-Chlorotoluene	0.0012	U	0.0012	0.025	
Dibromochloromethane	0.0011	U	0.0011	0.025	
Ethylene Dibromide	0.00075	U	0.00075	0.025	
1,2-Dibromo-3-Chloropropane	0.0017	U	0.0017	0.025	
Dibromomethane	0.00083	U	0.00083	0.025	
1,2-Dichlorobenzene	0.00059	U	0.00059	0.025	
1,3-Dichlorobenzene	0.00054	U	0.00054	0.025	
1,4-Dichlorobenzene	0.0010	U	0.0010	0.025	
Dichlorodifluoromethane	0.0021	U	0.0021	0.025	
1,1-Dichloroethane	0.00084	U	0.00084	0.025	
1,2-Dichloroethane	0.00080	U	0.00080	0.025	
1,1-Dichloroethane	0.0015	U	0.0015	0.025	
cis-1,2-Dichloroethane	0.00081	U	0.00081	0.025	
trans-1,2-Dichloroethane	0.0010	U	0.0010	0.025	
1,2-Dichloroethane, Total	0.0010	U	0.0010	0.025	
1,2-Dichloropropane	0.00087	U	0.00087	0.025	
cis-1,3-Dichloropropane	0.00073	U	0.00073	0.025	
trans-1,3-Dichloropropane	0.0010	U	0.0010	0.025	
1,3-Dichloropropane	0.00073	U	0.00073	0.025	
2,2-Dichloropropane	0.0017	U	0.0017	0.025	
1,1-Dichloropropane	0.00093	U	0.00093	0.025	
Ethylbenzene	0.016	J	0.0010	0.025	
Hexachlorobutadiene	0.0043	U	0.0043	0.13	
2-Hexanone	0.0010	U	0.0010	0.025	
Isopropylbenzene	0.0029	J	0.0010	0.025	
4-Isopropyltoluene	0.0026	J	0.00075	0.025	

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-170426-1414-RollOff

Lab Sample ID: 560-67711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8260B Analysis Batch: 560-139178 Instrument ID: VGCMS#1
 Prep Method: 5030B Prep Batch: N/A Lab File ID: 05041725.D
 Dilution: 5.0 Leach Batch: 560-139142 Initial Weight/Volume: 5 mL
 Analysis Date: 05/04/2017 2253 Final Weight/Volume: 5 mL
 Prep Date: 05/04/2017 2253
 Leach Date: 05/03/2017 1514

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Methylene Chloride	0.022	J B	0.010	0.25	
4-Methyl-2-pentanone (MIBK)	0.00058	U	0.00058	0.025	
Naphthalene	0.0058	J	0.0010	0.13	
N-Propylbenzene	0.0077	J	0.00053	0.025	
Styrene	0.0010	U	0.0010	0.13	
1,1,1,2-Tetrachloroethane	0.0010	U	0.0010	0.025	
1,1,2,2-Tetrachloroethane	0.00095	U	0.00095	0.025	
Tetrachloroethene	0.00095	U	0.00095	0.025	
Toluene	0.0076	J	0.0015	0.025	
1,2,3-Trichlorobenzene	0.0011	U	0.0011	0.13	
1,2,4-Trichlorobenzene	0.00084	U	0.00084	0.13	
1,1,1-Trichloroethane	0.0015	U	0.0015	0.025	
1,1,2-Trichloroethane	0.00087	U	0.00087	0.025	
Trichloroethane	0.0018	U	0.0018	0.025	
Trichlorofluoromethane	0.0012	U	0.0012	0.025	
1,2,3-Trichloropropane	0.00096	U	0.00096	0.025	
1,2,4-Trimethylbenzene	0.051	U	0.0010	0.025	
1,3,5-Trimethylbenzene	0.020	J	0.0010	0.025	
Vinyl chloride	0.0015	U	0.0015	0.025	
o-Xylene & p-Xylene	0.025	U	0.0010	0.025	
m-Xylene & p-Xylene	0.022	J	0.0013	0.050	

Surrogate	%Rec	Qualifier	Acceptance Limits
Dibromofluoromethane (Sur)	100		69 - 130
Toluene-d8 (Sur)	104		70 - 130
4-Bromofluorobenzene (Sur)	83		70 - 130
1,2-Dichloroethane-d4 (Sur)	93		70 - 140

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-170426-1414-RollOff

Lab Sample ID: 560-67711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C Analysis Batch: 560-139102 Instrument ID: SVGCMS#2
 Prep Method: 3520C Prep Batch: 560-139097 Lab File ID: 05031711.D
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 25 mL
 Analysis Date: 05/03/2017 1335 Final Weight/Volume: 1 mL
 Prep Date: 05/02/2017 1000 Injection Volume: 1 uL
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
1,2-Diphenylhydrazine (as Azobenzene)	0.0056	U	0.0056	0.10	
Acenaphthene	0.0057	U	0.0057	0.10	
Acenaphthylene	0.0050	U	0.0050	0.10	
Anthracene	0.0040	U	0.0040	0.10	
Benzidine	0.10	U	0.10	0.50	
Benzofluoranthene	0.0050	U	0.0050	0.10	
Benzobenzofluoranthene	0.0050	U	0.0050	0.10	
Benzofluoranthene	0.0036	U	0.0036	0.10	
Benzofluoranthene	0.0050	U	0.0050	0.10	
Benzofluoranthene	0.0050	U	0.0050	0.10	
Benzofluoranthene	0.014	U	0.014	0.10	
Butyl benzyl phthalate	0.0050	U	0.0050	0.10	
Butyl benzyl phthalate	0.0059	U	0.0059	0.10	
Butyl benzyl phthalate	0.0071	U	0.0071	0.10	
Butyl benzyl phthalate	0.16	J B	0.050	0.20	
Carbazole	0.0050	U	0.0050	0.10	
4-Chloroaniline	0.0048	U	0.0048	0.10	
2-Chloronaphthalene	0.0050	U	0.0050	0.10	
4-Chlorophenyl phenyl ether	0.0052	U	0.0052	0.10	
Chrysene	0.0050	U	0.0050	0.10	
Dibenz(a,h)anthracene	0.0050	U	0.0050	0.10	
Dibenzofuran	0.0051	U	0.0051	0.10	
1,2-Dichlorobenzene	0.0050	U	0.0050	0.10	
1,3-Dichlorobenzene	0.020	U	0.020	0.10	
1,4-Dichlorobenzene	0.0074	U	0.0074	0.10	
3,3'-Dichlorobenzidine	0.010	U	0.010	0.10	
Dibutyl phthalate	0.0052	U	0.0052	0.10	
Dimethyl phthalate	0.0055	U	0.0055	0.10	
Di-n-butyl phthalate	0.0050	U	0.0050	0.10	
Di-n-octyl phthalate	0.0050	U	0.0050	0.10	
2,4-Dinitrotoluene	0.0038	U	0.0038	0.10	
2,6-Dinitrotoluene	0.0052	U	0.0052	0.10	
Fluoranthene	0.0050	U	0.0050	0.10	
Fluorene	0.0081	U	0.0081	0.10	
Hexachlorobenzene	0.0065	U	0.0065	0.10	
Hexachlorobutadiene	0.010	U	0.010	0.10	
Hexachlorocyclopentadiene	0.050	U	0.050	0.10	
Hexachlorobenzene	0.010	U	0.010	0.10	
Indeno(1,2,3-cd)pyrene	0.0050	U	0.0050	0.10	
Isophorene	0.0063	U	0.0063	0.10	
1-Methylnaphthalene	0.0081	J	0.0050	0.10	
2-Methylnaphthalene	0.0098	J	0.0043	0.10	
3-Nitroaniline	0.018	J	0.018	0.10	

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-170426-1414-RollOff

Lab Sample ID: 560-67711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C Analysis Batch: 560-139102 Instrument ID: SVGCMS#2
 Prep Method: 3520C Prep Batch: 560-139097 Lab File ID: 05031711.D
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 25 mL
 Analysis Date: 05/03/2017 1335 Final Weight/Volume: 1 mL
 Prep Date: 05/02/2017 1000 Injection Volume: 1 uL
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
4-Nitroaniline	0.015	U	0.015	0.10	
Naphthalene	0.0066	J	0.0048	0.10	
Nitrobenzene	0.0034	U	0.0034	0.10	
N-Nitrosodimethylamine	0.013	U	0.013	0.10	
N-Nitrosodi-n-propylamine	0.0065	U	0.0065	0.10	
N-Nitrosodiphenylamine	0.0051	U	0.0051	0.10	
Phenanthrene	0.0051	U	0.0051	0.10	
Pyrene	0.010	U	0.010	0.10	
1,2,4,5-Tetrachlorobenzene	0.0056	U	0.0056	0.10	
1,2,4-Trichlorobenzene	0.0059	U	0.0059	0.10	
Benzoic acid	0.016	U	0.016	0.50	
2-Chlorophenol	0.0036	U	0.0036	0.10	
2,4-Dichlorophenol	0.0039	U	0.0039	0.10	
2,6-Dichlorophenol	0.0056	U	0.0056	0.10	
2,4-Dimethylphenol	0.0056	U	0.0056	0.10	
2,4-Dinitrophenol	0.0053	U	0.0053	0.10	
4,6-Dinitro-2-methylphenol	0.018	U	0.018	0.10	
2-Methylphenol	0.0049	U	0.0049	0.10	
3,4,4-Methylphenol	0.0088	U	0.0088	0.20	
4-Nitrophenol	0.018	U	0.018	0.10	
Pentachlorophenol	0.010	U	0.010	0.10	
Phenol	0.010	U	0.010	0.10	
2,4,6-Trichlorophenol	0.0039	U	0.0039	0.10	
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.10	
2,2'-oxybis[1-chloropropane]	0.0057	U	0.0057	0.10	

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Sur)	82		27 - 130
2-Fluorobiphenyl	87		23 - 130
Terphenyl-d14 (Sur)	58		10 - 141
Phenol-d5 (Sur)	84		10 - 130
2-Fluorophenol (Sur)	75		10 - 130
2,4,6-Tribromophenol (Sur)	93		18 - 130

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Analytical Data

Client: General Services Administration

Job Number: 560-87711-1

Client Sample ID: 81W013-170428-1414-Rolloff

Lab Sample ID: 560-87711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8010B Metals (ICP)-TCLP

Analysis Method: 6010B Analysis Batch: 560-138093 Instrument ID: MTS6500
 Prep Method: 3010A Prep Batch: 560-138085 Lab File ID: 170502b-fixed.asc
 Dilution: 1.0 Leach Batch: 560-138033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/02/2017 1744 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1100
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.0084	J	0.0035	0.010
Barium		1.1		0.0020	0.010
Cadmium		0.0015	J	0.0034	0.0050
Chromium		0.0017	J	0.0011	0.010
Lead		0.0033	U	0.0033	0.010
Selenium		0.018		0.0042	0.010

Analysis Method: 6010B Analysis Batch: 560-139148 Instrument ID: MTS6500
 Prep Method: 3010A Prep Batch: 560-139085 Lab File ID: 170503a-fixed.asc
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/03/2017 1117 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1100
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected N	Result (mg/L)	Qualifier	MDL	RL
Silver		0.0010	U	0.0010	0.0050

7470A Mercury (CVAA)-TCLP

Analysis Method: 7470A Analysis Batch: 560-139088 Instrument ID: Mhg1
 Prep Method: 7470A Prep Batch: 560-139078 Lab File ID: 170502W PRN
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/02/2017 1344 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1052
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.00013	U	0.00013	0.0020

TestAmerica Corpus Christi

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Analytical Data

Client: General Services Administration

Job Number: 490-127291-1

Client Sample ID: 81W013-1704281414-Rolloff

Lab Sample ID: 490-127291-2

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1005

8015B Gasoline Range Organics - (GC)

Analysis Method: 8015B Analysis Batch: 490-428366 Instrument ID: HP46
 Prep Method: 50308 Prep Batch: 490-428485 Initial Weight/Volume: 5.08 g
 Dilution: 2.0 Final Weight/Volume: 5.0 mL
 Analysis Date: 05/09/2017 1340 Injection Volume: 5 mL
 Prep Date: 05/01/2017 1022 Result Type: PRIMARY

Analyte	DryWt Corrected N	Result (mg/Kg)	Qualifier	MDL	RL
BRO (C10-C16)		110		49	88
Surrogate		%Rec	Qualifier	Acceptance Limits	
m,m'-Trifluorobiphenyl		93		50 - 150	

TestAmerica Nashville

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Analytical Data

Client: General Services Administration

Job Number: 490-127291-1

Client Sample ID: 81W013-1704281414-Rolloff

Lab Sample ID: 490-127291-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1005

8015B Diesel Range Organics (DRO) (GC)

Analysis Method: 8015B Analysis Batch: 490-427818 Instrument ID: HP93
 Prep Method: 3550C Prep Batch: 490-427093 Initial Weight/Volume: 25.06 g
 Dilution: 250 Final Weight/Volume: 1.00 mL
 Analysis Date: 05/05/2017 0312 Injection Volume: 1 uL
 Prep Date: 05/03/2017 1107 Result Type: PRIMARY

Analyte	DryWt Corrected N	Result (mg/Kg)	Qualifier	MDL	RL
DRO (C10-C28)		6900		620	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
m-Terphenyl (Sur)	1035	X	50 - 150

TestAmerica Nashville

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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 06/05/17	Name of HWMC Receiving Person Harrison / Hernandez				
Section A: Container Information					
Container No.(s): 2017-0468		Waste Profile [X] Awaiting Analysis []		Waste Profile Number: TC 17 138 01	
Accumulation Start Date: 06/05/17		MSDS []			
Description/Nomenclature:	Liquid []	Solid [X]	Aerosol []	Cylinder []	Material to Waste []
Petroleum contaminated soil from Thurgood Horse Movie					
Type/Size of Container (DOT Code):				Gross Weight (Lbs):	
DM [] Size:				24,180	
DF [] Size:					
Other [X] (state type & size): Rolloff 20yd					
Container Received is Acceptable: Yes [X] No []		Container Supplied by HWMC: Yes [X] No []		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project TC Thurgood Canyon Movie Site					
Point of Contact: Cathy Giblin		Signature:		Telephone: 575-678-3541	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) []	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906(D) []	S22895#	22895 PAD []
Container Moved To: On (Date):				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs:	Min:	Container Cost:	
CLIN ID: 9907		Cost Per Lb: .14		Type:	Qty: \$
Total: 3897.6				Type:	Qty: \$
1348 No.: 1426001					
Disposal Cost: 3897.6		Customer APC/JONO:			
Delivery Order No: 0678		Line Item No.: 1		Manifest No.: 008734332FLE	
Comments:					

20170468

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Test Center
 Thurgood Canyon Movie
 Bldg. Number: N/A
 SAP ID: NA
 DODAAC: WM0M58

•Waste Profile•

TC 17 138 01

Replaces:
 Contact: Cathy Giblin
 Phone: 575-678-3541

1. Name of Waste: Petroleum contaminated soil from Thurgood Horse Movie
2. Clin: 9907
3. Generating Process: movie production (vehicles)
4. Projected Volume: 90000 lbs Mode of Collection: Other: Roll Off
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
1,2,4-Trimethylbenzene	0.051 mg/L
Barium	1.1 mg/L
DRO (C10-C28)	6900 mg/Kg
GRO (C6-C10)	110 mg/Kg
Selenium	0.018 mg/L
Total Xylenes	0.025 mg/L

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See Test America Chemistry Laboratory results for sample numbers 560-67711-1 and 490-127291-2.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Digitally signed by HARRISON.JON.EDWARD.14085882
 DN: cn=J.E. Harrison, ou=WSMR, ou=PHS, ou=USA,
 email=HARRISON.JON.EDWARD.14085882
 Date: 2017.05.18 12:23:53 -0700

Date
 18-May-17

Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-179426-1414-Rolloff

Lab Sample ID: 560-67711-1
Client Matrix: SolidDate Sampled: 04/26/2017 1414
Date Received: 04/28/2017 1000

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 5.0
Analysis Date: 05/04/2017 2253
Prep Date: 05/04/2017 2253
Leach Date: 05/03/2017 1514

Analysis Batch: 560-139178
Prep Batch: N/A
Leach Batch: 560-139142

Instrument ID: VGCMS#1
Lab File ID: 05041725.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Acetone		0.025	U	0.025	0.25
Benzene		0.0017	U	0.0017	0.050
Bromobenzene		0.00064	U	0.00064	0.025
Bromochloromethane		0.0011	U	0.0011	0.025
Bromodichloromethane		0.00088	U	0.00088	0.025
Bromomethane		0.0025	U	0.0025	0.13
Bromomethane		0.0020	U	0.0020	0.025
Methyl tert-butyl ether		0.0010	U	0.0010	0.025
2-Butanone (MEK)		0.0050	U	0.0050	0.10
n-Butylbenzene		0.0076	J	0.0010	0.025
sec-Butylbenzene		0.0043	J	0.0015	0.025
tert-Butylbenzene		0.0010	U	0.0010	0.025
Carbon disulfide		0.0025	U	0.0025	0.025
Carbon tetrachloride		0.0013	U	0.0013	0.025
Chlorobenzene		0.00068	U	0.00068	0.025
Chloroethane		0.0020	U	0.0020	0.025
Chloroform		0.0010	U	0.0010	0.025
Chloromethane		0.0020	U	0.0020	0.025
2-Chlorotoluene		0.00078	U	0.00078	0.025
4-Chlorotoluene		0.0012	U	0.0012	0.025
Dibromochloromethane		0.0011	U	0.0011	0.025
Ethylene Dibromide		0.00075	U	0.00075	0.025
1,2-Dibromo-3-Chloropropane		0.0017	U	0.0017	0.025
Dibromomethane		0.00083	U	0.00083	0.025
1,2-Dichlorobenzene		0.00059	U	0.00059	0.025
1,3-Dichlorobenzene		0.00064	U	0.00064	0.025
1,4-Dichlorobenzene		0.0010	U	0.0010	0.025
Dichlorodifluoromethane		0.0021	U	0.0021	0.025
1,1-Dichloroethane		0.00084	U	0.00084	0.025
1,2-Dichloroethane		0.00080	U	0.00080	0.025
1,1-Dichloroethene		0.0015	U	0.0015	0.025
cis-1,2-Dichloroethene		0.00061	U	0.00061	0.025
trans-1,2-Dichloroethene		0.0010	U	0.0010	0.025
1,2-Dichloroethene, Total		0.0010	U	0.0010	0.025
1,2-Dichloropropane		0.00067	U	0.00067	0.025
cis-1,3-Dichloropropane		0.00073	U	0.00073	0.025
trans-1,3-Dichloropropane		0.0010	U	0.0010	0.025
1,3-Dichloropropane		0.00073	U	0.00073	0.025
2,2-Dichloropropane		0.0017	U	0.0017	0.025
1,1-Dichloropropane		0.00093	U	0.00093	0.025
Ethylbenzene		0.016	J	0.0010	0.025
Hexachlorobutadiene		0.0043	J	0.0043	0.13
2-Hexanone		0.0010	U	0.0010	0.025
Isopropylbenzene		0.0029	J	0.0010	0.025
4-Isopropyltoluene		0.0028	J	0.00075	0.025

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-179426-1414-Rolloff

Lab Sample ID: 560-67711-1
Client Matrix: SolidDate Sampled: 04/26/2017 1414
Date Received: 04/28/2017 1000

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 5.0
Analysis Date: 05/04/2017 2253
Prep Date: 05/04/2017 2253
Leach Date: 05/03/2017 1514

Analysis Batch: 560-139178
Prep Batch: N/A
Leach Batch: 560-139142

Instrument ID: VGCMS#1
Lab File ID: 05041725.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Methylene Chloride		0.022	J	0.010	0.25
4-Methyl-2-pentanone (MIBK)		0.00058	U	0.00058	0.025
Naphthalene		0.0068	J	0.0010	0.13
N-Propylbenzene		0.0077	J	0.00053	0.025
Styrene		0.0010	U	0.0010	0.13
1,1,2-Tetrachloroethane		0.0010	U	0.0010	0.025
1,1,2,2-Tetrachloroethane		0.00095	U	0.00095	0.025
Tetrachloroethene		0.00095	U	0.00095	0.025
Toluene		0.0078	J	0.0015	0.025
1,2,3-Trichlorobenzene		0.0011	U	0.0011	0.13
1,2,4-Trichlorobenzene		0.00084	U	0.00084	0.13
1,1,1-Trichloroethane		0.0015	U	0.0015	0.025
1,1,2-Trichloroethane		0.00087	U	0.00087	0.025
Trichloroethene		0.0016	U	0.0016	0.025
Trichlorofluoromethane		0.0012	U	0.0012	0.025
1,2,3-Trichloropropane		0.00096	U	0.00096	0.025
1,2,4-Trimethylbenzene		0.001	J	0.0010	0.025
1,3,5-Trimethylbenzene		0.0015	U	0.0015	0.025
Vinyl chloride		0.0015	U	0.0015	0.025
o-Xylene		0.025	J	0.0010	0.025
m-Xylene & p-Xylene		0.022	J	0.0013	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
Dibromofluoromethane (Sur)	100		69 - 130
Toluene-d8 (Sur)	104		70 - 130
4-Bromofluorobenzene (Sur)	83		70 - 130
1,2-Dichloroethane-d4 (Sur)	93		70 - 140

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-179426-1414-Rolloff

Lab Sample ID: 560-67711-1
Client Matrix: SolidDate Sampled: 04/26/2017 1414
Date Received: 04/28/2017 1000

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C
Prep Method: 3520C
Dilution: 1.0
Analysis Date: 05/03/2017 1335
Prep Date: 05/02/2017 1000
Leach Date: 05/01/2017 1600

Analysis Batch: 560-139102
Prep Batch: 560-139097
Leach Batch: 560-139033

Instrument ID: SVGCMS#2
Lab File ID: 05031711.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
1,2-Diphenylhydrazine (as Azobenzene)		0.0056	U	0.0056	0.10
Acenaphthene		0.0057	U	0.0057	0.10
Acenaphthylene		0.0050	U	0.0050	0.10
Anthracene		0.0040	U	0.0040	0.10
Benadine		0.10	U	0.10	0.50
Benzo[a]anthracene		0.0050	U	0.0050	0.10
Benzo[b]fluoranthene		0.0050	U	0.0050	0.10
Benzo[k]fluoranthene		0.0036	U	0.0036	0.10
Benzo[g,h,i]perylene		0.0050	U	0.0050	0.10
Benzo[a]pyrene		0.0050	U	0.0050	0.10
Benzyl alcohol		0.014	U	0.014	0.10
Butyl benzyl phthalate		0.0050	U	0.0050	0.10
Bis(2-chloroethoxy)methane		0.0059	U	0.0059	0.10
Bis(2-chloroethoxy)ether		0.0071	U	0.0071	0.10
Bis(2-ethylhexyl) phthalate		0.16	J	0.050	0.20
Carbazole		0.0050	U	0.0050	0.10
4-Chloroaniline		0.0046	U	0.0046	0.10
2-Chloroaniline		0.0050	U	0.0050	0.10
4-Chlorophenyl phenyl ether		0.0052	U	0.0052	0.10
Chrysene		0.0050	U	0.0050	0.10
Dibenz[a,h]anthracene		0.0050	U	0.0050	0.10
Dibenzofuran		0.0051	U	0.0051	0.10
1,2-Dichlorobenzene		0.0050	U	0.0050	0.10
1,3-Dichlorobenzene		0.0020	U	0.0020	0.10
1,4-Dichlorobenzene		0.0074	U	0.0074	0.10
3,3'-Dichlorobenzidine		0.010	U	0.010	0.10
Diethyl phthalate		0.0052	U	0.0052	0.10
Dimethyl phthalate		0.0055	U	0.0055	0.10
D-n-butyl phthalate		0.0050	U	0.0050	0.10
D-n-octyl phthalate		0.0050	U	0.0050	0.10
2,4-Dinitrotoluene		0.0038	U	0.0038	0.10
2,6-Dinitrotoluene		0.0052	U	0.0052	0.10
Fluoranthene		0.0050	U	0.0050	0.10
Indene		0.0061	U	0.0061	0.10
Isachlorobenzene		0.0065	U	0.0065	0.10
Isachlorobutadiene		0.010	U	0.010	0.10
Hexachlorocyclopentadiene		0.050	U	0.050	0.10
Hexachloroethane		0.010	U	0.010	0.10
Indeno[1,2,3-cd]pyrene		0.0050	U	0.0050	0.10
Isophorone		0.0063	U	0.0063	0.10
1-Methylnaphthalene		0.0081	J	0.0050	0.10
2-Methylnaphthalene		0.0068	J	0.0043	0.10
3-Nitroaniline		0.018	U	0.018	0.10

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: 81W013-179426-1414-Rolloff

Lab Sample ID: 560-67711-1
Client Matrix: SolidDate Sampled: 04/26/2017 1414
Date Received: 04/28/2017 1000

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C
Prep Method: 3520C
Dilution: 1.0
Analysis Date: 05/03/2017 1335
Prep Date: 05/02/2017 1000
Leach Date: 05/01/2017 1600

Analysis Batch: 560-139102
Prep Batch: 560-139097
Leach Batch: 560-139033

Instrument ID: SVGCMS#2
Lab File ID: 05031711.D
Initial Weight/Volume: 25 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Nitroaniline		0.015	U	0.015	0.10
Naphthalene		0.0066	J	0.0048	0.10
Nitrobenzene		0.0034	U	0.0034	0.10
N-Nitrosodimethylamine		0.013	U	0.013	0.10
N-Nitrosodi-n-propylamine		0.0065	U	0.0065	0.10
N-Nitrosodiphenylamine		0.0051	U	0.0051	0.10
Phenanthrene		0.010	U	0.0051	0.10
Pyrene		0.010	U	0.010	0.10
1,2,4,5-Tetrachlorobenzene		0.0056	U	0.0056	0.10
1,2,4-Trichlorobenzene		0.0059	U	0.0059	0.10
Benzoic acid		0.016	U	0.016	0.50
2-Chlorophenol		0.0036	U	0.0036	0.10
2,4-Dichlorophenol		0.0039	U	0.0039	0.10
2,6-Dichlorophenol		0.0056	U	0.0056	0.10
2,4-Dimethylphenol		0.0056	U	0.0056	0.10
2,4-Dinitrophenol		0.0093	U	0.0093	0.10
4,6-Dinitro-2-methylphenol		0.018	U	0.018	0.10
2-Methylphenol		0.0049	U	0.0049	0.10
3 & 4 Methylphenol		0.0068	U	0.0068	0.20
4-Nitrophenol		0.018	U	0.018	0.10
Pentachlorophenol		0.10	U	0.10	0.40
Phenol		0.010	U	0.010	0.10
2,4,6-Trichlorophenol		0.0039	U	0.0039	0.10
2,4,5-Trichlorophenol		0.0040	U	0.0040	0.10
2,2'-azobis[1-chloropropane]		0.0057	U	0.0057	0.10

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5 (Sur)	82		27 - 130
2-Fluorobiphenyl	87		23 - 130
Terphenyl-d14 (Sur)	58		10 - 141
Phenol-d5 (Sur)	84		10 - 130
2-Fluorophenol (Sur)	75		10 - 130
2,4,6-Trifluorophenol (Sur)	93		16 - 130

TestAmerica Corpus Christi

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Analytical Data

Client: General Services Administration

Job Number: 560-67711-1

Client Sample ID: S1W013-178428-1414-Rolloff

Lab Sample ID: 560-67711-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1000

8010B Metals (ICP)-TCLP

Analysis Method: 6010B Analysis Batch: 560-139083 Instrument ID: MTS6500
 Prep Method: 3010A Prep Batch: 560-139085 Lab File ID: 170502b-fixed asc
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/02/2017 1744 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1100
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.0084	J	0.0058	0.010
Barium		1.1		0.0020	0.010
Cadmium		0.0015	J	0.0034	0.0050
Chromium		0.0017	J	0.0011	0.010
Lead		0.0033	U	0.0033	0.010
Selenium		0.018		0.0042	0.010

Analysis Method: 6010B Analysis Batch: 560-139148 Instrument ID: MTS6500
 Prep Method: 3010A Prep Batch: 560-139085 Lab File ID: 170503a-fixed asc
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/02/2017 1117 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1100
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Silver		0.0010	U	0.0010	0.0050

7470A Mercury (CVAA)-TCLP

Analysis Method: 7470A Analysis Batch: 560-139088 Instrument ID: Mhg1
 Prep Method: 7470A Prep Batch: 560-139078 Lab File ID: 170502W PRN
 Dilution: 1.0 Leach Batch: 560-139033 Initial Weight/Volume: 50 mL
 Analysis Date: 05/02/2017 1344 Final Weight/Volume: 50 mL
 Prep Date: 05/02/2017 1052
 Leach Date: 05/01/2017 1600

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.00013	U	0.00013	0.0020

TestAmerica Corpus Christi

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Analytical Data

Client: General Services Administration

Job Number: 490-127291-1

Client Sample ID: S1W013-1784281414-Rolloff

Lab Sample ID: 490-127291-2

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1005

8015B Gasoline Range Organics - (GC)

Analysis Method: 8015B Analysis Batch: 490-428366 Instrument ID: HP46
 Prep Method: 6030B Prep Batch: 490-428485 Initial Weight/Volume: 5.08 g
 Dilution: 2.0 Final Weight/Volume: 5.0 mL
 Analysis Date: 05/09/2017 1340 Injection Volume: 5 mL
 Prep Date: 05/01/2017 1022 Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
GRO (C6-C10)		110		49	98

Surrogate	%Rec	Qualifier	Acceptance Limits
1,1,1-Trichloroethane	83		50 - 150

TestAmerica Nashville

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Analytical Data

Client: General Services Administration

Job Number: 490-127291-1

Client Sample ID: S1W013-1784281414-Rolloff

Lab Sample ID: 490-127291-1

Client Matrix: Solid

Date Sampled: 04/26/2017 1414

Date Received: 04/28/2017 1005

8015B Diesel Range Organics (DRO) (GC)

Analysis Method: 8015B Analysis Batch: 490-427618 Instrument ID: HP63
 Prep Method: 3550C Prep Batch: 490-427093 Initial Weight/Volume: 25.08 g
 Dilution: 250 Final Weight/Volume: 1.00 mL
 Analysis Date: 05/06/2017 0312 Injection Volume: 1 uL
 Prep Date: 05/03/2017 1107 Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
DRO (C10-C28)		6600		620	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl (Sur)	1035	X	50 - 150

TestAmerica Nashville

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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 1/18/2018		Name of HWMC Receiving Person: Hernandez / Legra			
Section A - Container Information					
Container No.(s): 2018-0633		Waste Profile ☒ Awaiting Analysis ☒	Waste Profile Number: PW 18 062 01		
Accumulation Start Date: 1/18/2018		MSDS []			
Description/Nomenclature: PPE - Waste Water Treatment Plant Sampling	Liquid []	Solid ☒	Aerosol [] Cylinder [] Material to Waste []		
Type/Size of Container (DOT Code):	Gross Weight (Lbs): 67 LBS				
DM [] Size:					
DF ☒ Size: 3.5 DF					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []	Container Supplied by HWMC: Yes [] No ☒	Other [] (provide explanation in comments section below):			
Section B - Generator Information					
Organization/Contractor/Project: DPW / WWTP					
Point of Contact: Juan Padilla	Signature: [Signature]	Telephone: 575-647-4221			
Section C - HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	4893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895# S-7	22895 PAD []
Container Moved To: S-7				Other:	
On (Date): 3/14/2018					
Waste Disposal Cost					
Time Req'd to Process Waste: Hrs: Min:			Container Cost:		
CLIN ID:		Cost Per Lb:	Type:	Qty:	\$
Total:			Type:	Qty:	\$
1348 No.:					
Disposal Cost:			Customer APC/JONO:		
Delivery Order No:		Line Item No.:		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

●Generator●		●Waste Profile●	
Name:	US Army, WSMR	Organization:	Public Works Directorate
Address:	100 Headquarters Ave. WSMR, NM 88002		WWTP
US EPA ID:	NM2750211235	Bldg. Number:	21288
State ID:	N/A	SAP ID:	N/A
		DODAAC:	WM0M58
		PW	18 062 01
		Replaces:	
		Contact:	Benito Avalos
		Phone:	575-678-5359

1.	Name of Waste: PPE- Waste Water Treatment Plant EffCom Sampling	
2.	Clin: NR01	
3.	Generating Process: Environmental Sampling	
4.	Projected Volume: 7 Lbs	Mode of Collection: Pail/Bucket
5.	Comments:	
6.	Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No	
7.	Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No Does waste meet applicable treatment standards already? ☒ Yes ☐ No	

●RCRA Characteristics●		●Chemical/Material Composition●	
Physical State:		Component	Concentration/Range
☒ Solid	☐ Liquid	Barium	0.0528 mg/L
☐ Gas	☐ Other		
Treatment Group:			
☐ Wastewater ☐ Non-Wastewater			
☒ Non-RCRA Waste (no other waste codes apply)			
☐ Ignitable (D001) Flash Point: N/A			
☐ High TOC (>= 10%) ☐ Low TOC (<10%)			
☐ Corrosive (D002) pH: N/A			
☐ Reactive (D003)			
	☐ Water Reactive		
	☐ Cyanide Reactive		
	☐ Sulfide Reactive		
☐ Toxicity Characteristics:		●Shipping Information●	
☐ F- Listed Waste:		DOT Hazardous Material? ☐ Yes ☒ No	
☐ P - Listed Waste:		Shipping Name:	
☐ U - Listed Waste:		Non-Regulated	
		Waste Codes: Non-Regulated	
		Hazard Class: UN or NA No.: PG:	
		CERCLA Reportable Qty (RQ):	
		2008 Emergency Response Guidebook EM Resp No.:	

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See Lancaster Lab ID: WW9435670

●Generator Certification● I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.		
WSMR HWMC Representative Name Jon Edward Harrison	Signature HARRISON.JON.EDWARD.14085 95882	Date 01-Mar-18

North Wind, Inc.
ELLE Sample #: WW 9435870
ELLE Group #: 1903762
Matrix: Water

Sample Description: MPWWTP-EffCom-0118-WC Composite Water
Project Name: Wastewater 20033.014 WSMR

Sample Description:

Submittal Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/31/2018 09:30

Submittal Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/31/2018 09:30

CAT No.	Analyte Name	CAS Number	Resist	Detection Limit*	Limit of Detection	Limit of Quantitation	DP
GCMHS	SIM-048 BZND						
14241	Benzot acid	65-85-0	ug/l	6	10	16	1
14241	Berry alcohol	100-51-6	N.D.	11	21	32	1
14241	4-Bromophenyl-phenylether	101-85-3	N.D.	0.5	1	1	1
14241	Butylbenzothioleale	65-98-7	N.D.	2	4	5	1
14241	Di-n-butylthioleale	64-74-2	N.D.	2	4	5	1
14241	4-Chloro-3-methylphenol	98-50-7	N.D.	0.5	1	1	1
14241	4-Chloro-2-methylphenol	108-47-8	N.D.	2	4	4	1
14241	4-Chlorobenzoylamine	111-81-1	N.D.	0.5	1	1	1
14241	4-Chlorobenzoylmethane	111-44-4	N.D.	0.5	1	1	1
14241	4-Chlorobenzoylchloride	30939-32-9	N.D.	0.5	1	1	1
14241	4-Chlorobenzoylphenol						
14241	4-Chlorobenzoylphenol ether CAS #10538-32-9 and 2-(4-chlorobenzoyloxy) phenol CAS #105-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.						
14241	2-Chloronaphthalene	91-58-7	N.D.	0.4	1	1	1
14241	2-Chlorophenol	95-57-8	N.D.	0.5	1	1	1
14241	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.5	1	1	1
14241	Chrysene	218-01-9	N.D.	0.1	0.2	0.5	1
14241	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	1	1	1
14241	Dibenzokum	132-64-9	N.D.	0.5	1	1	1
14241	1,2-Dichlorobenzene	95-50-1	N.D.	0.5	1	1	1
14241	1,3-Dichlorobenzene	541-75-1	N.D.	0.5	1	1	1
14241	1,4-Dichlorobenzene	108-46-7	N.D.	0.5	1	1	1
14241	3,5-Dichlorobenzidine	91-84-1	N.D.	2	4	5	1
14241	2,4-Dichlorophenol	120-83-2	N.D.	0.5	1	1	1
14241	Dimethylthioleale	64-98-2	N.D.	2	4	5	1
14241	2,4-Dimethylphenol	105-67-9	N.D.	0.5	1	1	1
14241	Dimethylthioleale	131-11-3	N.D.	2	4	5	1
14241	4,6-Dinitro-2-methylphenol	534-82-1	N.D.	5	16	16	1
14241	2,4-Dinitrophenol	51-28-5	N.D.	11	32	32	1
14241	2,4-Dinitrobenzene	121-14-2	N.D.	1	4	5	1
14241	2,6-Dinitrobenzene	808-20-2	N.D.	0.5	1	1	1
14241	2-Ethylhexylthioleale	117-81-7	N.D.	2	4	5	1
14241	2-Ethylhexylthioleale	209-44-0	N.D.	0.1	0.2	0.5	1
14241	Fluorene	66-73-7	N.D.	0.1	0.2	0.5	1
14241	Hasechlonbenzene	116-74-1	N.D.	0.1	0.2	0.5	1
14241	Hasechlonbenzidine	87-69-3	N.D.	0.1	0.2	0.5	1
14241	Hasechlonoxydiphenylene	77-47-4	N.D.	0.5	1	1	1
14241	Hasechlonoxallene	67-72-1	N.D.	5	16	16	1
14241	Indanol(1,2,3-o)pyrene	193-36-5	N.D.	1	4	5	1
14241	Isoquinoline	78-58-1	N.D.	0.1	0.2	0.5	1
14241	2-Methylthioleale	91-57-8	N.D.	0.1	0.2	0.5	1
14241	2-Methylphenol	95-48-7	N.D.	0.5	1	1	1

^aThis limit was used in the evaluation of the final result

Sample Description: MPWWTP-ENCom-0118-VWC Composites Water
Project Name: Wastewater 20033.014 WSMR

North Wind, Inc.
ELLE Sample #: WW 9435070
ELLE Group #: 1903762
Matrix: Water

Submittal Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/31/2018 09:30

Submittal Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/31/2018 09:30

CAT No.	Analyte Name	CAS Number	Result	Detection Limit*	Limit of Detection	Unit of Quantitation	DF
GCHMS	Semivolatiles	SW-546 827D0	ug/l	ug/l	ug/l	ug/l	1
14241	4-Methylphenol	106-44-5	N.D.	0.5	1	1	1
14241	3-Nitrophenol	91-20-3	N.D.	0.1	0.2	0.5	1
14241	Naphthalene	85-74-4	N.D.	0.5	1	1	1
14241	2-Nitroaniline	95-74-4	N.D.	0.5	1	1	1
14241	3-Nitroaniline	95-06-2	N.D.	0.5	1	1	1
14241	4-Nitroaniline	100-01-6	N.D.	0.5	1	1	1
14241	Nitrobenzene	98-95-3	N.D.	0.5	1	1	1
14241	Nitrobenzidine	98-75-5	N.D.	0.5	1	1	1
14241	2-Nitrophenol	100-02-7	N.D.	11	32	32	1
14241	4-Nitrophenol	100-02-7	N.D.	2	4	5	1
14241	N-Nitrosodimethylaniline	62-75-9	N.D.	0.5	1	1	1
14241	N-Nitroso-di-n-propylaniline	631-04-7	N.D.	0.5	1	1	1
14241	N-Nitroso-diphenylamine	86-30-6	N.D.	0.5	1	1	1
14241	N-Nitrosodiphenylamine decomposes in the GC inlet forming diphenylamines. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
14241	Di-n-octylphthalate	117-84-0	N.D.	2	4	5	1
14241	Pentafluorophenol	87-86-5	N.D.	1	4	5	1
14241	Phenanthrene	85-01-8	N.D.	0.1	0.2	0.5	1
14241	Phenol	108-95-2	N.D.	0.5	1	1	1
14241	Pyrene	129-00-0	N.D.	0.1	0.2	0.5	1
14241	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.5	1	1	1
14241	2,4,5-Trichlorophenol	95-95-4	N.D.	0.5	1	1	1
14241	2,4,6-Trichlorophenol	88-06-2	N.D.	0.5	1	1	1
Metals	SW-546 8020A	mg/l	mg/l	mg/l	mg/l	mg/l	
06023	Aluminum	7429-90-5	0.0215 J	0.0215	0.0200	0.0200	1
06023	Arsenic	7440-36-0	N.D.	0.00445	0.0010	0.0020	1
06025	Boric Acid	7440-38-2	0.00095 J	0.00072	0.0020	0.0040	1
06026	Barium	7440-39-3	0.0276	0.00072	0.0020	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.000071	0.00025	0.0010	1
06028	Cadmium	7440-43-8	N.D.	0.00015	0.00060	0.0010	1
06029	Calcium	7440-70-2	56.9	0.0043	0.200	0.400	1
06031	Chromium	7440-47-3	N.D.	0.00037	0.0020	0.0040	1
06032	Cobalt	7440-48-4	0.00017 J	0.00016	0.00050	0.0040	1
06033	Copper	7440-50-8	0.0064	0.00054	0.0010	0.0040	1
06034	Iron	7439-85-6	0.106 J	0.0374	0.100	0.200	1
06035	Lead	7439-92-1	N.D.	0.00011	0.00025	0.00025	1
06036	Magnesium	7439-95-4	10.8	0.0106	0.0250	0.200	1
06037	Manganese	7439-96-5	0.0284	0.00090	0.0020	0.0040	1
06038	Nickel	7440-02-0	0.029 J	0.0010	0.0020	0.0040	1
06040	Potassium	7440-09-7	15.9	0.0025	0.200	0.400	1
06041	Selenium	7782-49-2	0.00073 J	0.00050	0.0010	0.0040	1

This limit was used in the evaluation of the final result

Analysis Report



Lancaster Laboratories
Environmental

North Wind, Inc.
ELLE Sample #: WW 9435670
ELLE Group #: 1903762
Metric: Water

Sample Description: MPWWTP-EffCom-0119-WC Composite Water
Project Name: Wastewater 20033.014 WSMR

Submission Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/31/2018 08:30

CAT No.	Analyte Name	CAS Number	Result	Detection Limit*	Limit of Detection	Limit of Quantitation	DF
00042	Metals	SW-546 6020A					
00042	Silver	7440-22-4	N.D.	0.0015	mg/L	0.0010	1
00043	Sodium	7440-23-5	82.2	0.000	0.100	0.400	1
00045	Thallium	7440-29-0	N.D.	0.0012	0.0025	0.0010	1
00048	Vanadium	7440-62-2	0.0050	0.0021	0.0050	0.0010	1
00049	Zinc	7440-66-6	0.0957	0.0039	0.0075	0.0300	1
00259	Mercury	SW-546 7470A					
00259	Mercury	7439-97-6	N.D.	0.00050	mg/L	0.00010	1
12151	Wet Chemistry	EPA 170.1					
12151	Temperature of pH	n.a.	20.9	Degrees C	Degrees C	Degrees C	1
00430	Flash Point	SW-546 1010A					
00430	Flash Point	n.a.	No Flash Observed	Degrees F	Degrees F	Degrees F	1
12182	pH	SW-546 9040C					
12182	pH	n.a.	7.5	Std. Units	Std. Units	Std. Units	1

Sample Comments

PA DEP Lab Certification ID 35-00037, Expiration Date: 12/31/19.
All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analyte Name	Method	Batch#	Result	Std. Units	Analysis Date and Time	Analyst	Division Factor
00066	VOCs 8200B	SW-546 8200B 25mL	1	116041AA	Std. Units	02/13/2018 12:03	Kevin A. Spicillo	1
01163	GC/MS VOCs Water Prep	SW-546 8200B	1	116041AA	Std. Units	02/13/2018 12:03	Kevin A. Spicillo	1
14241	SVOCs 8270D	SW-546 8270D	1	18037WAA028	Std. Units	02/13/2018 18:30	Edward C. Monhome	1
11010	8270D BNA Extraction	SW-546 8270D	1	18037WAA028	Std. Units	02/13/2018 18:30	Edward C. Monhome	1
06023	Aluminum	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 09:14	David R. Sanchez	1
06024	Antimony	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Choon Y. Tian	1
06025	Arsenic	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Patrick J. Engle	1
06026	Barium	SW-546 8020A	1	180371003901D	Std. Units	02/10/2018 14:33	Patrick J. Engle	1
06027	Beryllium	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Patrick J. Engle	1
06028	Bismuth	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Patrick J. Engle	1
06029	Calcium	SW-546 8020A	1	180371003901B	Std. Units	02/10/2018 14:33	Patrick J. Engle	1
06031	Chromium	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Patrick J. Engle	1
06032	Cobalt	SW-546 8020A	1	180371003901A	Std. Units	02/06/2018 22:23	Patrick J. Engle	1

*This limit was used in the evaluation of the final result

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 8/7/2017		Name of HWMC Receiving Person: Harrison / Leiba			
Section A: Container Information					
Container No.(s): 2017-0634		Waste Profile ☒ Awaiting Analysis []	Waste Profile Number: AAF 17 059 01		
Accumulation Start Date: 8/7/2017		MSDS ☒			
Description/Nomenclature: Expired Nicotine Products	Liquid []	Solid ☒ Aerosol []	Cylinder [] Material to Waste ☒		
Type/Size of Container (DOT Code):		Gross Weight (Lbs): 6 LBS			
DM [] Size:					
DF ☒ Size: 5 DF					
Other [] (state type & size):					
Container Received is Acceptable: Yes [] No ☒		Container Supplied by HWMC: Yes ☒ No []	Other [] (provide explanation in comments section below):		
Section B: Generator Information					
Organization/Contractor/Project: AAFES BDC7. JAO					
Point of Contact: Gene Hickok/Stream	Signature: [Signature]		Telephone: 674-2498		
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) ☒	22906 (D) []	S22895#	22895 PAD []
Container Moved To: 22905-C				Other:	
On (Date): 25 Oct 2017					
Waste Disposal Cost:					
Time Req'd to Process Waste: Hrs: Min:			Container Cost:		
CLIN ID: LP11C1 Cost Per Lb: 293.55			Type:	Qty:	\$
Total: 293.55			Type:	Qty:	\$
1348 No.: 3116007					
Disposal Cost: 293.55			Customer APC/JONO:		
Delivery Order No: F2548		Line Item No.: 31		Manifest No.: 010663500FLE	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: AAFES
.... Base Exchange
Bldg. Number: 260
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

AAF 17 059 01
Replaces:
Contact: Jane Hickok
Phone: 674-2498

1. Name of Waste: Expired Nicotine Products
2. Clin: 9704
3. Generating Process: Material to Waste
4. Projected Volume: 8 Lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

•RCRA Characteristics•

- Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other
- Treatment Group:
☐ Wastewater ☐ Non-Wastewater
- ☐ Non-RCRA Waste (no other waste codes apply)
- ☐ Ignitable (D001) Flash Point: N/A
- ☐ High TOC (>= 10%) ☐ Low TOC (<10%)
- ☐ Corrosive (D002) pH: N/A
- ☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive
- ☐ Toxicity Characteristics:
- ☐ F- Listed Waste:
- ☒ P - Listed Waste: P075
- ☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
Nicorette Gum:	
Nicotine Polacrilex	1 - 2 %
Non Hazardous Ingredients	98 - 99%
Nicotine Patch:	
Nicotine	10 - 40 %

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Hazardous Waste, Solid, n.o.s. (Nicotine)

Waste Codes: P075

Hazard Class: 9 UN or NA No.: NA3077 PG: III

CERCLA Reportable Qty (RQ): 100 lbs

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

•Basis for Information•

- ☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)
- Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached MSDS for GSK Nicorette Gum (02/08/2007) and GSK Nicotine Patches (04/15/2013).

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Date
28-Feb-17

SAFETY DATA SHEET**GlaxoSmithKline****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Material	NICORETTE	
Synonyms	NICORETTE GUM 2 MG * NICORETTE GUM 4 MG * NICORETTE DS * NICORETTE FRESH MINT * NICORETTE MINT * NICORETTE ORIGINAL * NICOTINE POLACRILEX, FORMULATED PRODUCT	
Company Name	GlaxoSmithKline, Corporate Environment, Health & Safety 980 Great West Road Brentford, Middlesex TW8 9GS UK UK General Information: +44-20-8047-5000 Transport Emergency (EU) +44-1865-407333 Medical Emergency +1-612-221-3999, Ext 221 Information and Advice: US number, available 24 hours Multi-language response GlaxoSmithKline, Corporate Environment, Health & Safety One Franklin Plaza, 200 N 16th Street Philadelphia, PA 19102-1225 US US General Information: +1-888-825-5249 Transport Emergency (non EU) +1-703-527-3887 US number, available 24 hours Multi-language response	

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS RN	Percentage
NICOTINE POLACRILEX	Unassigned	1 to 2
NON-HAZARDOUS INGREDIENTS	Unassigned	98 to 99

3. HAZARDS IDENTIFICATION

Fire and Explosion	Expected to be non-combustible.
Health	Not expected to be a health hazard during normal handling. Health effects information is based on hazards of components.
Environment	No information is available about the potential of this product to produce adverse environmental effects.

4. FIRST-AID MEASURES

Ingestion	Never attempt to induce vomiting. Do not attempt to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious. Wash out the mouth with water. If the exposed subject is fully conscious, give plenty of water to drink. Obtain medical attention.
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Material NICORETTE

Inhalation	Physical form suggests that risk of inhalation exposure is negligible.
Skin Contact	Using appropriate personal protective equipment, remove contaminated clothing and flush exposed area with large amounts of water. Obtain medical attention if skin reaction occurs, which may be immediate or delayed.
Eye Contact	Wash immediately with clean and gently flowing water. Continue for at least 15 minutes. Obtain medical attention.

NOTES TO HEALTH PROFESSIONALS

Medical Treatment	Medical treatment in cases of overexposure should be treated as an overdose of nicotine. Treat according to locally accepted protocols. For additional guidance, refer to the local poison control information centre.
Medical Conditions Caused or Aggravated by Exposure	None for occupational exposure.
Antidotes	No specific antidotes are recommended.

5. FIRE-FIGHTING MEASURES

Fire and Explosion Hazards	Not expected for the product, although the packaging is combustible.
Extinguishing Media	Water, dry powder or foam extinguishers are recommended. Carbon dioxide extinguishers may be ineffective.
Special Firefighting Procedures	For single units (packages): No special requirements needed. For larger amounts (multiple packages/pallets) of product: Since toxic, corrosive or flammable vapours might be evolved from fires involving this product and associated packaging, self contained breathing apparatus and full protective equipment are recommended for firefighters. If possible, contain and collect firefighting water for later disposal.
Hazardous Combustion Products	Toxic, corrosive or flammable thermal decomposition products are expected when the product is exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective clothing and equipment consistent with the degree of hazard.
Environmental Precautions	For large spills, take precautions to prevent entry into waterways, sewers, or surface drainage systems.
Clean-up Methods	Collect and place it in a suitable, properly labelled container for recovery or disposal.
Decontamination Procedures	No specific decontamination or detoxification procedures have been identified for this product.

7. HANDLING AND STORAGE**HANDLING**

General Requirements	No special control measures required for the normal handling of this product. Normal room ventilation is expected to be adequate for routine handling of this product.
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STORAGE

No storage requirements necessary for occupational hazards. Follow product information storage instructions to maintain efficacy.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Material NICORETTE

INGREDIENT	NICOTINE
GSK Occupational Hazard Category	3
GSK Occupational Exposure Limit	70 MCG/M3 (8 HR TWA) SKIN, REPRODUCTIVE HAZARD 200 mcg/m3 (15 MIN STEL)
Other Equipment or Procedures	None required for normal handling. Wash hands and arms thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance**Physical Form**

Square chewing pieces.

10. STABILITY AND REACTIVITY

Stability

This product is expected to be stable.

Conditions to Avoid

None for normal handling of this product.

11. TOXICOLOGICAL INFORMATION

Oral Toxicity

Not expected to be toxic following ingestion.

Inhalation Toxicity

No studies have been conducted.

Skin Effects

Irritation is not expected following direct contact.

Eye Effects

Irritation is not expected following direct contact with eyes.

Sensitisation

Sensitisation (allergic skin reaction) is not expected.

Genetic Toxicity

Not expected to be genotoxic under occupational exposure conditions.

Carcinogenicity

No components are listed as carcinogens by GSK, IARC, NTP or US OSHA.

Other Adverse Effects

This material can produce central nervous system stimulation.

12. ECOLOGICAL INFORMATION

Summary

No information is available about the potential of this product to produce adverse environmental effects. Local regulations and procedures should be consulted prior to environmental release.

13. DISPOSAL CONSIDERATIONS

Disposal**Recommendations**

Collect for recycling or recovery if possible. The disposal method for rejected products/returned goods must ensure that they cannot be re-sold or re-used. The recommended method of disposal is incineration.

Regulatory Requirements

Observe all local and national regulations when disposing of this product.

14. TRANSPORT INFORMATION

The SDS should accompany all shipments for reference in the event of spillage or accidental release. Only authorised persons trained and competent in accordance with appropriate national and international regulatory requirements may prepare dangerous goods for transport.

UN Classification and Labelling**Transport Information**

Transportation and shipping of this product is not restricted. It has no known, significant hazards requiring special packaging or labelling for air, maritime, US or European ground transport purposes.

15. REGULATORY INFORMATION

The information included below is an overview of the major regulatory requirements. It should not be considered to be an exhaustive summary. Local regulations should be consulted for additional requirements.

EU Classification and Labelling

Exempt from requirements of EU Dangerous Preparations directive - product regulated as a medicinal product, cosmetic product or medical device.

US OSHA Standard (29 CFR Part 1910.1200)**Classification**

Exempt when packaged for sale to consumers in a retail establishment.

Other US Regulations**TSCA Status**

Exempt

16. OTHER INFORMATION**References**

GSK Hazard Determination

Date Approved/Revised 08-Feb-2007

SDS Version Number 13

SDS Sections Updated**Sections****Subsections****COMPOSITION / INFORMATION ON INGREDIENTS**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture NICOTINE PATCH
Registration number -
Synonyms PROJECT NRT PATCH * NICOTINE TRANSDERMAL SYSTEM * NICOTINE, FORMULATED PRODUCT
Issue date 15-April-2013
Version number 03
Revision date 15-April-2013

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Medicinal Product

This safety data sheet is written to provide health, safety and environmental information for people handling this formulated product in the workplace. It is not intended to provide information relevant to medicinal use of the product. In this instance patients should consult prescribing information/package insert/product label or consult their pharmacist or physician. For health and safety information for individual ingredients used during manufacturing, refer to the appropriate safety data sheet for each ingredient.

Uses advised against No other uses are advised.

1.3. Details of the supplier of the safety data sheet

GlaxoSmithKline UK
980 Great West Road
Brentford, Middlesex TW8 9GS UK
UK General Information (normal business hours): +44-20-8047-5000
Email Address: msds@gsk.com
Website: www.gsk.com

1.4. Emergency telephone number

TRANSPORT EMERGENCIES (by country / geographic region):
Africa / EU / Israel / Middle East
(English / European languages): +44 (0) 1235 239 670
Asia Pacific (except China): +65 3158 1074
China: +86 10 5100 3039
Middle East / Africa (Arabic-speaking countries): +44 (0) 1235 239 671
US: +1 703 527 3887
available 24 hrs/7 days; multi-language response

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Classification according to Regulation (EC) No 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Supplemental label information Not applicable.

2.3. Other hazards Expected to be non-combustible.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
NICOTINE	10.0 - 40.0	54-11-5 200-193-3	-	614-001-00-4	#
Classification:	DSD: Repr. Cat. 3;R63, T+;R27, T;R25, N;R51/53				
	CLP: Acute Tox. 3;H301, Acute Tox. 1;H310, STOT SE 3;H335, Repr. 2;H361, STOT SE 1;H370, Aquatic Acute 1;H400, Aquatic Chronic 2;H411				

60.0 - 90.0

SECTION 4: First aid measures

General information Not available.

4.1. Description of first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed The possible consequences of overexposure include: increased heart rate; increased blood pressure; salivation; abdominal pain; headache; depression; dizziness; respiratory depression.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards Expected to be non-combustible.

5.1. Extinguishing media

Suitable extinguishing media	Water. Foam. Dry chemical powder.
Unsuitable extinguishing media	Carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters	Wear suitable protective equipment.
Special fire fighting procedures	In the event of fire, cool tanks with water spray. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	Keep unnecessary personnel away.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

6.2. Environmental precautions No special environmental precautions required.

6.3. Methods and material for containment and cleaning up Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Following product recovery, flush area with water.

Never return spills in original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid prolonged exposure. Use care in handling/storage.

7.2. Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

7.3. Specific end use(s) Medicinal Product

Material name: NICOTINE PATCH

134765 Version No.: 03

Revision date: 15-April-2013 Issue date: 15-April-2013

SDS UK

2/7

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

GSK Components	Type	Value	Note
NICOTINE (CAS 54-11-5)	15 MIN STEL	200 mcg/m3	
	8 HR TWA	70 mcg/m3	
	OHC	3	Reproductive hazard
		3	Skin
UK. EH40 Workplace Exposure Limits (WELs)			
Components	Type	Value	
NICOTINE (CAS 54-11-5)	STEL	1.5 mg/m3	
	TWA	0.5 mg/m3	

Recommended monitoring procedures Follow standard monitoring procedures.

Derived No Effect Level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls No special ventilation requirements.

Individual protection measures, such as personal protective equipment

Eye/face protection Not normally needed.

Skin protection

- Hand protection

- Other

Not normally needed.

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. No personal respiratory protective equipment normally required.

Thermal hazards

Not available.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls

Hazard guidance and control recommendations Not available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Solid.

Form Patch.

Colour Not available.

Odour Not available.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not applicable.

Evaporation rate Not applicable.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidizing properties	Not available.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	None under normal conditions.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	Nitrogen oxides (NOx).

SECTION 11: Toxicological information

General information	Caution - Pharmaceutical agent. Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Ingestion	May be harmful if swallowed.
Inhalation	Not available.
Skin contact	Health injuries are not known or expected under normal use.
Eye contact	Health injuries are not known or expected under normal use. May be irritating to eyes.

Symptoms	The possible symptoms of overexposure include: increased heart rate; increased blood pressure; salivation; abdominal pain; headache; depression; dizziness; respiratory depression.
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NICOTINE

nervous system

11.1. Information on toxicological effects

Acute toxicity	May be harmful if swallowed.
----------------	------------------------------

Components	Species	Test results
------------	---------	--------------

NICOTINE (CAS 54-11-5)

Acute

Dermal

LD50

Rat

140 mg/kg

Oral

LD50

Rat

188 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Health injuries are not known or expected under normal use.
---------------------------	---

Serious eye damage/eye irritation	Health injuries are not known or expected under normal use.
-----------------------------------	---

Respiratory sensitisation	Not available.
---------------------------	----------------

Skin sensitisation	Health injuries are not known or expected under normal use.
--------------------	---

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
------------------------	--

Germ cell mutagenicity

Mutagenicity
NICOTINE

Ames
Result: negative

Mutagenicity
NICOTINE

In vitro cytogenetics assay
Result: negative
Mouse micronucleus test
Result: negative
in vitro micronucleus assay
Result: positive
Organ: gingivum
sister chromatid exchange
Result: positive

Carcinogenicity
NICOTINE

TiO2 produced carcinogenic effects in a lifetime study in mice. High concentrations or doses administered over an extended period of time were required to produce adverse effects.

Inhalation
Result: negative
Species: Rat
oral
Result: negative
Species: Rat
tumour promotor
Species: Mouse

Reproductive toxicity

Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.

Reproductive toxicity
Developmental effects
NICOTINE

Reduced bodyweight
Result: positive
Species: Rabbit
Reduced bodyweight
Result: positive
Species: Rat
Sensitive species
Result: positive
Species: Mouse
Organ: Cleft palate

Specific target organ toxicity - single exposure
NICOTINE

Nervous system.

nervous system

Specific target organ toxicity - repeated exposure
NICOTINE

Circulatory system.

Cardiovascular system

Aspiration hazard Not available.

Mixture versus substance information Not available.

Other information None known.

SECTION 12: Ecological information

12.1. Toxicity

Components		Species	Test results
NICOTINE (CAS 54-11-5)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia pulex)	0.242 mg/l, 48 hours, Static renewal test
Fish	EC50	Rainbow trout (Adult Oncorhynchus mykiss)	4 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential Not available.

Partition coefficient
n-octanol/water (log Kow)
NICOTINE

1.17

Bioconcentration factor (BCF)

NICOTINE

5

12.4. Mobility in soil**Adsorption**Soil/sediment sorption - log K_{oc}

NICOTINE

2 Estimated

Mobility in general**Volatility**

Henry's law

NICOTINE

0 atm m³/mol Estimated**12.5. Results of PBT
and vPvB
assessment**

Not available.

12.6. Other adverse effects

Not available.

12.7. Additional information

None known.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Residual waste**

Not available.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code

Not available.

Disposal methods/information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

SECTION 14: Transport information**ADR**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

**14.7. Transport in bulk
according to Annex II of
MARPOL73/78 and the IBC Code**

MARPOL Annex II applies to liquids used in a ship's operation that pose a threat to the marine environment. These materials may not be transported in bulk.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

NICOTINE (CAS 54-11-5)

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

NICOTINE (CAS 54-11-5)

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Material name: NICOTINE PATCH

134765 Version No.: 03 Revision date: 15-April-2013 Issue date: 15-April-2013

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Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

NICOTINE (CAS 54-11-5)

Directive 94/33/EC on the protection of young people at work

NICOTINE (CAS 54-11-5)

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Not available.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

GSK Hazard Determination

Information on evaluation method leading to the classification of mixture

Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R25 Toxic if swallowed.

R27 Very toxic in contact with skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Revision information

Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Ingredients

Physical & Chemical Properties:

Transport Information: Agency Name and Packaging Type/Transport Mode Selection

Training information

Not available.

Disclaimer

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 11/13/2017		Name of HWMC Receiving Person: Hernandez / LEYBA			
Section A: Container Information					
Container No.(s): 2017-0794		Waste Profile ☒ Awaiting Analysis []		Waste Profile Number: AAF 17 059 01	
Accumulation Start Date: 11/13/2017		MSDS []			
Description/Nomenclature: Expired Nicotine Patches		Liquid [] Solid ☒ Aerosol []		Cylinder [] Material to Waste ☒	
Type/Size of Container (DOT Code):				Gross Weight (Lbs):	
DM [] Size:				4 LBS	
DF ☒ Size: 3.50F					
Other [] (state type & size):					
Container Received is Acceptable: Yes [] No ☒		Container Supplied by HWMC: Yes ☒ No []		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project: AAFES BLDG 2600					
Point of Contact: Jane H / Stearn P.		Signature: [Signature]		Telephone: 674-2498	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) []	22906 (D) []	S22895# S-24	22895 PAD []
Container Moved To: 07 Feb 2018				Other:	
On (Date): S22895- S-24					
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs: Min:		Container Cost:	
CLIN ID: LP11C1		Cost Per Lb: 302.10		Type:	Qty: \$
Total: \$ 302.10				Type:	Qty: \$
1348 No.: 3176008					
Disposal Cost: \$302.10		Customer APC/JONO:			
Delivery Order No: F2548		Line Item No.: 32		Manifest No.: 010663500FLE	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: AAFES
Base Exchange
Bldg. Number: 260
SAP ID: N/A
DODAAC: WM0M58

●Waste Profile●

AAF 17 059 01

Replaces:
Contact: Jane Hickok
Phone: 674-2498

1. Name of Waste: Expired Nicotine Products
2. Clin: 9704
3. Generating Process: Material to Waste
4. Projected Volume: 8 Lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

●RCRA Characteristics●

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☒ P - Listed Waste: P075

☐ U - Listed Waste:

●Chemical/Material Composition●

Component	Concentration/Range
Nicorette Gum:	
Nicotine Polacrilex	1 - 2 %
Non Hazardous Ingredients	98 - 99%
Nicotine Patch:	
Nicotine	10 - 40 %

●Shipping Information●

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Hazardous Waste, Solid, n.o.s. (Nicotine)

Waste Codes: P075

Hazard Class: 9 UN or NA No.: NA3077 PG: III

CERCLA Reportable Qty (RQ): 100 lbs

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

●Basis for Information●

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached MSDS for GSK Nicorette Gum (02/08/2007) and GSK Nicotine Patches (04/15/2013).

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Digitally signed by HARRISON.JON.EDWARD.140859582
DN: cn=HARRISON.JON.EDWARD.140859582, ou=WSMR, ou=US Army, ou=USA
Date: 2017.02.28 09:28:57 -0700

Date
28-Feb-17

SAFETY DATA SHEET

GlaxoSmithKline

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material NICORETTE
Synonyms NICORETTE GUM 2 MG * NICORETTE GUM 4 MG * NICORETTE DS * NICORETTE FRESH MINT * NICORETTE MINT * NICORETTE ORIGINAL * NICOTINE POLACRILEX, FORMULATED PRODUCT
Company Name GlaxoSmithKline, Corporate Environment, Health & Safety
980 Great West Road
Brentford, Middlesex TW8 9GS UK
UK General Information: +44-20-8047-5000
Transport Emergency (EU) +44-1865-407333
Medical Emergency +1-812-221-3999, Ext 221
Information and Advice: US number, available 24 hours
Multi-language response

GlaxoSmithKline, Corporate Environment, Health & Safety
One Franklin Plaza, 200 N 16th Street
Philadelphia, PA 19102-1225 US
US General Information: +1-888-825-5249
Transport Emergency (non EU) +1-703-527-3887
US number, available 24 hours
Multi-language response

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS RN	Percentage
NICOTINE POLACRILEX	Unassigned	1 to 2
NON-HAZARDOUS INGREDIENTS	Unassigned	98 to 99

3. HAZARDS IDENTIFICATION

Fire and Explosion Expected to be non-combustible.
Health Not expected to be a health hazard during normal handling. Health effects information is based on hazards of components.
Environment No information is available about the potential of this product to produce adverse environmental effects.

4. FIRST-AID MEASURES

Ingestion Never attempt to induce vomiting. Do not attempt to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious. Wash out the mouth with water. If the exposed subject is fully conscious, give plenty of water to drink. Obtain medical attention.

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Inhalation Physical form suggests that risk of inhalation exposure is negligible.
Skin Contact Using appropriate personal protective equipment, remove contaminated clothing and flush exposed area with large amounts of water. Obtain medical attention if skin reaction occurs, which may be immediate or delayed.
Eye Contact Wash immediately with clean and gently flowing water. Continue for at least 15 minutes. Obtain medical attention.

NOTES TO HEALTH PROFESSIONALS

Medical Treatment Medical treatment in cases of overexposure should be treated as an overdose of nicotine. Treat according to locally accepted protocols. For additional guidance, refer to the local poison control information centre.
Medical Conditions Caused or Aggravated by Exposure None for occupational exposure.
Antidotes No specific antidotes are recommended.

5. FIRE-FIGHTING MEASURES

Fire and Explosion Hazards Not expected for the product, although the packaging is combustible.
Extinguishing Media Water, dry powder or foam extinguishers are recommended. Carbon dioxide extinguishers may be ineffective.
Special Firefighting Procedures For single units (packages): No special requirements needed. For larger amounts (multiple packages/pallets) of product: Since toxic, corrosive or flammable vapours might be evolved from fires involving this product and associated packaging, self contained breathing apparatus and full protective equipment are recommended for firefighters. If possible, contain and collect firefighting water for later disposal.
Hazardous Combustion Products Toxic, corrosive or flammable thermal decomposition products are expected when the product is exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Wear protective clothing and equipment consistent with the degree of hazard.
Environmental Precautions For large spills, take precautions to prevent entry into waterways, sewers, or surface drainage systems.
Clean-up Methods Collect and place it in a suitable, properly labelled container for recovery or disposal.
Decontamination Procedures No specific decontamination or detoxification procedures have been identified for this product.

7. HANDLING AND STORAGE

HANDLING
General Requirements No special control measures required for the normal handling of this product. Normal room ventilation is expected to be adequate for routine handling of this product.
STORAGE No storage requirements necessary for occupational hazards. Follow product information storage instructions to maintain efficacy.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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INGREDIENT NICOTINE
GSK Occupational Hazard Category 3
GSK Occupational Exposure Limit 70 MCG/M3 (8 HR TWA) SKIN, REPRODUCTIVE HAZARD
200 mcg/m3 (15 MIN STEL)
Other Equipment or Procedures None required for normal handling. Wash hands and arms thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Physical Form Square chewing pieces.

10. STABILITY AND REACTIVITY

Stability This product is expected to be stable.
Conditions to Avoid None for normal handling of this product.

11. TOXICOLOGICAL INFORMATION

Oral Toxicity Not expected to be toxic following ingestion.
Inhalation Toxicity No studies have been conducted.
Skin Effects Irritation is not expected following direct contact.
Eye Effects Irritation is not expected following direct contact with eyes.
Sensitisation Sensitisation (allergic skin reaction) is not expected.
Genetic Toxicity Not expected to be genotoxic under occupational exposure conditions.
Carcinogenicity No components are listed as carcinogens by GSK, IARC, NTP or US OSHA.
Other Adverse Effects This material can produce central nervous system stimulation.

12. ECOLOGICAL INFORMATION

Summary No information is available about the potential of this product to produce adverse environmental effects. Local regulations and procedures should be consulted prior to environmental release.

13. DISPOSAL CONSIDERATIONS

Disposal Recommendations Collect for recycling or recovery if possible. The disposal method for rejected products/returned goods must ensure that they cannot be re-sold or re-used. The recommended method of disposal is incineration.
Regulatory Requirements Observe all local and national regulations when disposing of this product.

14. TRANSPORT INFORMATION

The SDS should accompany all shipments for reference in the event of spillage or accidental release. Only authorised persons trained and competent in accordance with appropriate national and international regulatory requirements may prepare dangerous goods for transport.

UN Classification and Labelling

Transport Information Transportation and shipping of this product is not restricted. It has no known, significant hazards requiring special packaging or labelling for air, maritime, US or European ground transport purposes.

15. REGULATORY INFORMATION

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The information included below is an overview of the major regulatory requirements. It should not be considered to be an exhaustive summary. Local regulations should be consulted for additional requirements.
EU Classification and Labelling
Exempt from requirements of EU Dangerous Preparations directive - product regulated as a medicinal product, cosmetic product or medical device.

US OSHA Standard (29 CFR Part 1910.1200)

Classification Exempt when packaged for sale to consumers in a retail establishment.
Other US Regulations
TSCA Status Exempt

16. OTHER INFORMATION

References GSK Hazard Determination
Date Approved/Revised 08-Feb-2007 **SDS Version Number** 13

SDS Sections Updated

Sections COMPOSITION / INFORMATION ON INGREDIENTS
Subsections

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

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SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture: NICOTINE PATCH

Registration number

Synonyms: PROJECT NRT PATCH * NICOTINE TRANSDERMAL SYSTEM * NICOTINE, FORMULATED PRODUCT

Issue date

Version number: 03

Revision date

15-Apr-2013

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Medicinal Product

This safety data sheet is written to provide health, safety and environmental information for people handling this formulated product in the workplace. It is not intended to provide information relevant to medicinal use of the product. In this instance patients should consult prescribing information/package insert/product label or consult their pharmacist or physician. For health and safety information for individual ingredients used during manufacturing, refer to the appropriate safety data sheet for each ingredient.

Uses advised against

No other uses are advised.

1.3. Details of the supplier of the safety data sheet

GlaxoSmithKline UK
980 Great West Road
Brentford, Middlesex TW8 9QS UK
UK General Information (normal business hours): +44-20-8047-5000
Email Address: mads@gsk.com
Website: www.gsk.com

1.4. Emergency telephone number

TRANSPORT EMERGENCIES (by country / geographic region)

Africa / EU / Israel / Middle East
(English / European languages): +44 (0) 1235 236 670
Asia Pacific (except China): +65 3158 1074
China: +86 10 5100 3039
Middle East / Africa (Arabic-speaking countries): +44 (0) 1235 236 671
US: +1 703 527 3887
available 24 hrs/7 days, multi-language response

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Classification according to Regulation (EC) No 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

2.2. Label elements

Label according to Regulation (EC) No 1272/2008 as amended

Exempt from requirements - product regulated as a medicinal product, cosmetic product or medical device.

Supplemental label information

Not applicable.

2.3. Other hazards

Expected to be non-combustible.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Material name: NICOTINE PATCH
134765 Version No. 03 Revision date: 15-Apr-2013 Issue date: 15-Apr-2013

BSG UK
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General Information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
NICOTINE	10.0 - 40.0	54-11-5 200-193-3	-	614-001-00-4	#
Classification:	DSD: Repr. Cat. 3,R63, T+R27, T,R25, N,R51/53 CLP: Acute Tox. 3,H301, Acute Tox. 1,H310, STOT SE 3,H335, Repr. 2,H361, STOT SE 1,H370, Aquatic Acute 1,H400, Aquatic Chronic 2,H411				
60.0 - 90.0					

SECTION 4: First aid measures

General information: Not available.

4.1. Description of first aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact: Get medical attention if irritation develops and persists.
Eye contact: Rinse with water. Get medical attention if irritation develops and persists.
Ingestion: Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

The possible consequences of overexposure include: increased heart rate, increased blood pressure; salivation; abdominal pain; headache; depression; dizziness; respiratory depression.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards: Expected to be non-combustible.

5.1. Extinguishing media

Suitable extinguishing media: Water, Foam, Dry chemical powder.

Unsuitable extinguishing media

Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

Not available.

5.3. Advice for firefighters

Special protective equipment for firefighters: Wear suitable protective equipment.

Special fire fighting procedures: In the event of fire, cool tanks with water spray. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Keep unnecessary personnel away.

For emergency responders: Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Stop the flow of material. If this is without risk. Dike far ahead of spill for later disposal. Following product recovery, flush area with water.

6.4. Reference to other sections

For personal protection, see section 6. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling: Avoid prolonged exposure. Use care in handling/storage.

7.2. Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

7.3. Specific end use(s)

Medicinal Product

Material name: NICOTINE PATCH
134765 Version No. 03 Revision date: 15-Apr-2013 Issue date: 15-Apr-2013

BSG UK
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

OSK Components	Type	Value	Note
NICOTINE (CAS 54-11-5)	15 MIN STEL	200 mcg/m ³	
	8 HR TWA	70 mcg/m ³	
	OHC	3	Reproductive hazard Skin

UK, EH48 Workplace Exposure Limits (WELs) Components	Type	Value
NICOTINE (CAS 54-11-5)	STEL	1.5 mg/m ³
	TWA	0.5 mg/m ³

Recommended monitoring procedures: Follow standard monitoring procedures.

Derived No Effect Level (DNEL): Not available.

Predicted no effect concentrations (PNECs): Not available.

8.2. Exposure controls

Appropriate engineering controls: No special ventilation requirements.

Individual protection measures, such as personal protective equipment

Eye/face protection: Not normally needed.

Skin protection

- Hand protection: Not normally needed.
- Other: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. No personal respiratory protective equipment normally required.

Thermal hazards

Not available.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls

Hazard guidance and control recommendations: Not available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Solid.

Form: Patch.

Colour: Not available.

Odour: Not available.

Odour threshold: Not available.

pH: Not applicable.

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.

Flash point: Not applicable.

Evaporation rate: Not applicable.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits: Not available.

Flammability limit - lower (%): Not available.

Flammability limit - upper (%): Not available.

Material name: NICOTINE PATCH
134765 Version No. 03 Revision date: 15-Apr-2013 Issue date: 15-Apr-2013

BSG UK
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Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidizing properties	Not available.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	None under normal conditions.
10.5. Incompatible materials	None known.
10.6. Hazardous decomposition products	Nitrogen oxides (NO _x).

SECTION 11: Toxicological information

General information: Caution - Pharmaceutical agent. Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Ingestion: May be harmful if swallowed.
Inhalation: Not available.
Skin contact: Health injuries are not known or expected under normal use.
Eye contact: Health injuries are not known or expected under normal use. May be irritating to eyes.
Symptoms: The possible symptoms of overexposure include: increased heart rate, increased blood pressure, salivation; abdominal pain; headache; depression; dizziness; respiratory depression, nervous system.

NICOTINE

11.1. Information on toxicological effects

Acute toxicity	May be harmful if swallowed.	Test results
Components	Species	
NICOTINE (CAS 54-11-5)		
Acute Dermal LD50	Rat	140 mg/kg
Oral LD50	Rat	188 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Health injuries are not known or expected under normal use.
Serious eye damage/eye irritation	Health injuries are not known or expected under normal use.
Respiratory sensitisation	Not available.
Skin sensitisation	Health injuries are not known or expected under normal use.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Germ cell mutagenicity	
Mutagenicity NICOTINE	Ames Result: negative

Material name: NICOTINE PATCH
134765 Version No. 03 Revision date: 15-Apr-2013 Issue date: 15-Apr-2013

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Mutagenicity NICOTINE	In vitro cytogenetics assay Result: negative Mouse micronucleus test Result: negative In vitro micronucleus assay Result: positive Organ: ginghivum sister chromatid exchange Result: positive
Carcinogenicity NICOTINE	TiC2 produced carcinogenic effects in a lifetime study in mice. High concentrations or doses administered over an extended period of time were required to produce adverse effects. Inhalation Result: negative Species: Rat oral Result: negative Species: Rat tumour promoter Species: Mouse
Reproductive toxicity	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.
Reproductive toxicity Developmental effects NICOTINE	Reduced bodyweight Result: positive Species: Rabbit Reduced bodyweight Result: positive Species: Rat Sensitive species Result: positive Species: Mouse Organ: Cleft palate
Specific target organ toxicity - single exposure NICOTINE	Nervous system.
Specific target organ toxicity - repeated exposure NICOTINE	Circulatory system. Cardiovascular system
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	None known.
SECTION 12: Ecological information	
12.1. Toxicity	
Components	Species
NICOTINE (CAS 54-11-5)	
Aquatic	
Acute	
Crustacea	EC50 Water: Sea (Daphnia pulex)
Fish	EC50 Rainbow trout (Adult Oncorhynchus mykiss)
	0.242 mg/l, 48 hours. Static renewal test
	4 mg/l, 96 hours
* Estimates for product may be based on additional component data not shown.	
12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	Not available.
Partition coefficient n-octanol/water (log Kow) NICOTINE	1.17

Material name: NICOTINE PATCH

134765 Version No. G3 Revision date: 15-April-2013 Issue date: 15-April-2013

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Bioconcentration factor (BCF) NICOTINE	5
12.4. Mobility in soil	
Adsorption Soil/sediment sorption - log Koc NICOTINE	2 Estimated
Mobility in general	
Volatility Henry's law NICOTINE	0 atm m ³ /mol Estimated
12.8. Results of PBT and vPvB assessment	Not available.
12.8. Other adverse effects	Not available.
12.7. Additional information	None known.
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Residual waste	Not available.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	Not available.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.
SECTION 14: Transport information	
ADR	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
14.7. Transport in bulk	MARPOL Annex II applies to liquids used in a ship's operation that pose a threat to the marine environment. These materials may not be transported in bulk.
SECTION 15: Regulatory information	
15.1. Safety, health and environmental regulations-legislation specific for the substance or mixture	
EU regulations	
Regulation (EC) No. 1065/2009 on substances that deplete the ozone layer, Annex I	
Not listed.	
Regulation (EC) No. 1065/2009 on substances that deplete the ozone layer, Annex II	
Not listed.	
Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended	
Not listed.	
Regulation (EC) No. 889/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended	
NICOTINE (CAS 54-11-5)	
Regulation (EC) No. 889/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended	
NICOTINE (CAS 54-11-5)	
Regulation (EC) No. 889/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended	
Not listed.	
Regulation (EC) No. 889/2008 concerning the export and import of dangerous chemicals, Annex V as amended	
Not listed.	
Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry	
Not listed.	
Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA	
Not listed.	
Authorisations	
Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended	
Not listed.	
Restrictions on use	
Material name: NICOTINE PATCH	
134765 Version No. G3 Revision date: 15-April-2013 Issue date: 15-April-2013	

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Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended	Not listed.
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work	Not listed.
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding	Not listed.
Other EU regulations	
Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances	Not listed.
Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.	Not listed.
NICOTINE (CAS 54-11-5)	
Directive 84/33/EC on the protection of young people at work	Not listed.
NICOTINE (CAS 54-11-5)	
Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Not available.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.
SECTION 16: Other information	
List of abbreviations	Not available.
References	GSK Hazard Determination
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 18	R25 Toxic if swallowed. R27 Very toxic in contact with skin. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R63 Possible risk of harm to the unborn child. H301 Toxic if swallowed. H310 Fatal in contact with skin. H361 Suspected of damaging fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects.
Revision Information	Product and Company Identification: Product and Company Identification Composition / Information on Ingredients: Ingredients Physical & Chemical Properties Transport Information: Agency Name and Packaging Type/Transport Mode Selection
Training Information	Not available.
Disclaimer	The information and recommendations in this safety data sheet are, to the best of our knowledge accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

Material name: NICOTINE PATCH

134765 Version No. G3 Revision date: 15-April-2013 Issue date: 15-April-2013

SDS UK
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H W M C

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 12/13/17	Name of HWMC Receiving Person: Harrison				
Section A: Container Information					
Container No.(s): 2017-1028		Waste Profile [] Awaiting Analysis []		Waste Profile Number: MAT 18 023 02	
Accumulation Start Date: 12/13/17		MSDS ☒			
Description/Nomenclature: Tuf-Set Pipe thread Sealant		Liquid ☒ Solid [] Aerosol []		Cylinder [] Material to Waste ☒	
Type/Size of Container (DOT Code):				Gross Weight (Lbs): 2.45	
DM [] Size:					
DF ☒ Size: 1.25 Gallons					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []		Container Supplied by HWMC: Yes ☒ No []		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project: R409					
Point of Contact: ERIC MATTHEWS		Signature:		Telephone:	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) ☒	Cover (3) []	1892 (4) []	1893 (5) []	90 Day Yard Other []
22903 (A) ☒	22904 (B) []	22905 (C) []	22906 (D) []	S22895#	22895 PAD []
(PL) Container Moved To: A On (Date): 3/7/2018				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs:	Min:	Container Cost:	
CLIN ID: FLD3C1		Cost Per Lb: 41.20		Type:	Qty: \$
Total: 41.20				Type:	Qty: \$
1348 No.:		0296008			
Disposal Cost: 41.20		Customer APC/JONO:			
Delivery Order No: 2819		Line Item No.: 33		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Materiel Test Directorate
Admin Building and Facilities
Bldg. Number: R409
SAP ID: N/A
DODAAC: WM0M58

•Waste Profile•

MT 18 023 02
Replaces:
Contact: Allen Tyree
Phone: 575-678-4773

1. Name of Waste: Tuf-Set Pipe Thread Sealant
2. Clin: FL03
3. Generating Process: Material to Waste
4. Projected Volume: 2 lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

•RCRA Characteristics•

- Physical State: ☐ Solid ☒ Liquid ☐ Semi-Solid
☐ Gas ☐ Other
- Treatment Group: ☐ Wastewater ☐ Non-Wastewater
- ☐ Non-RCRA Waste (no other waste codes apply)
- ☒ Ignitable (D001) Flash Point: 54°F
- ☐ High TOC (>= 10%) ☐ Low TOC (<10%)
- ☐ Corrosive (D002) pH: N/A
- ☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive
- ☐ Toxicity Characteristics:
- ☐ F- Listed Waste:
- ☐ P- Listed Waste:
- ☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
n-Propyl Alcohol	15 - 25 %
Talc	15 - 30 %
Resin	10 - 20 %
Calcium Carbonate	4 - 9 %

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Waste Resin solution, flammable

Waste Codes: D001

Hazard Class: 3 UN or NA No.: UN1866 PG: II

GERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 127

Part 3

•Basis for Information•

- ☐ Chemical Analysis (attach test results) ☒ MSDS (attach MSDS) ☐ User Knowledge (attach supporting documents)
- Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached MSDS for Anti-Seize Technology Industries Inc. Tuf-Set Pipe Thread Sealant (12/15/14).

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name: Jon Edward Harrison Signature: HARRISON, JON EDWARD 14085 Date: 23-Jan-18



TUF-SET™ PIPE THREAD SEALANT SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name: Tuf-Set Pipe Thread Sealant

Manufacturer: Anti-Seize Technology
2348 N. 17th Ave.
Franklin Park, IL 60131
Phone: 847-455-2300
Toll Free: 800-991-1108
Web: anti-seize.com

Emergency Phone Number: Int'l: 1-800-535-5053 (US & Canada)
or 352-323-3500 (International)

Product Use: Pipe Thread Sealant
Restriction on Use: None known
SDS Date of Preparation: December 15, 2014

SECTION 2: HAZARD IDENTIFICATION

GHS Classification (Hazard 2012):

Flammable Solid Category 2
Eye Irritant Category 2
Specific Target Organ Toxicity - Single Exposure Category 1 (Narcotic effects)
Label Elements:

Signal Word: Danger



Hazard Phrases:
H225 Highly flammable liquid and vapor
H318 Causes serious eye irritation
H336 May cause drowsiness or dizziness

Precautionary Phrases:

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking
P233 Keep container tightly closed
P280 Do not breathe mist, vapor or fumes

Page 1 of 6

P254 Wash thoroughly after handling
P271 Use only outdoors or in a well-ventilated area
P280 Wear protective gloves and eye protection

Responses:

P305+P361+P353 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 Call a POISON CENTER or doctor if you feel unwell.

Storage:

P370+P378 In case of fire: Use fog, foam, carbon dioxide or dry chemical to extinguish.

Disposal:

P405 Store locked up
P501 Dispose of contents in accordance with local, regional and national laws.

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	%
n-Propyl alcohol	71-23-8	15-25
Talc	14807-95-6	15-30
Resin	Proprietary	10-20
Calcium carbonate	471-34-1	4-9

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes thoroughly with water for several minutes, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

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Most important symptoms and effects, both acute and delayed: May cause serious eye irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical.

Special Hazards Arising from the Chemical: Hazardous decomposition compounds may yield acid smoke and fumes, oxides of calcium and carbon and fumes of fluoride.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Avoid inhalation. Do not transfer to unlabeled containers.

Conditions for Safe Storage, including any incompatibilities: Store away from extreme heat and open flames. Store away from oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures: Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practices.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact.

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Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue colored paste	Vapor Density (air = 1): Not available
Odor: Alcohol odor	Specific Gravity: 1.1
Odor Threshold: Not established	Water Solubility: Partially dry
pH: Not available	Octanol/Water Partition Coefficient: Not available
Melting Point/Freezing Point: Not available	Autoignition Temperature: Not available
Boiling Point: 180°F	Decomposition Temperature: Not available
Flash Point: 54°F	Viscosity: Not available
Evaporation Rate: Not available	Explosion Properties: None
Flammable Limits:	Oxidizing Properties: Not oxidizing
LEL: Not established	
UEL: Not established	
Vapor Pressure: 30.75 mmHg@20°C	Agree of Fire Protection Level: Not applicable
VOC Content: 43%	Flammability (solid, gas): Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known.

Conditions to Avoid: Open flames and intense heat.

Incompatible Materials: None known.

Hazardous Decomposition Products: Hazardous decomposition compounds may yield acid smoke, fumes of fluoride, oxides of calcium and oxides of carbon.

Page 4 of 6

SECTION 11: TOXICOLOGICAL INFORMATION**Potential Health Effects:**

Eye: May cause serious eye irritation.

Skin: Prolonged contact may cause irritation and drying of the skin.

Inhalation: Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation and metal fume fever with symptoms of fever and chills. Inhalation of vapors may also cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, drowsiness, tingling, numbness and shooting pains in the hands and arms, tremors, narcosis, nausea, vomiting, and unconsciousness. High vapor concentrations may cause burning sensation of the nose and throat and watering of the eyes. Severe overexposures may cause respiration depression, blurred vision, blindness, anemia, liver and kidney damage, coma and death.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of mists or vapors may result in lung damage.

Carcinogen Status: No ingredient listed.

Acute Toxicity Values:

Propyl alcohol: Oral rat LD50: 8,038 mg/kg, Inhalation rat LC50 > 20000 ppm/1hr, Calcium Carbonate: Oral rat LD50 > 2000 mg/kg, Inhalation rat LC50 > 3 mg/L, dermal rat LD50 > 2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity:**

propyl alcohol: Pimephales promelas LC50 4,480 mg/L/96hr

Calcium Carbonate: Oncorhynchus mykiss LC50 > 100 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations.

SECTION 14: TRANSPORT INFORMATION**DOT**

U.S. department of transportation ground (49 cfr):

Proper shipping name: resin solution

Hazard class or division: 3

Identification number: UN 1868

Page 5 of 6

Packing group: III
Exceptions: (not more than 5 L), ORM-D, Consumer Commodity

(CADRATA):

Proper shipping name: resin solution

Hazard class or division: 3

Identification number: UN 1868

Packing group: III

Exceptions: Consumer Commodity, ID 8000, class 8, (not more than 500 ml)

(IMOMDQ):

Proper shipping name: resin solution

Hazard class or division: 3

Identification number: UN 1868

Packing group: III

Note: This product may be shipped as a limited quantity or ORM-D if the packaging meets the requirements.

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103): This product is not subject to reporting requirements under CERCLA. However, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Fire Hazard, Acute Health

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: None

EPA TSCA Inventory: All of the components of this product are listed on the TSCA Inventory.

CALIFORNIA PROPOSITION 65: This product is not known to contain listed chemicals.

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 10/11/2017		Name of HWMC Receiving Person: LC16A			
Section A: Container Information					
Container No.(s): 2017-0743		Waste Profile: ☒ Awaiting Analysis []		Waste Profile Number: NWS 17 347 01	
Accumulation Start Date: 11 Oct 17		MSDS: ☒			
Description/Nomenclature: Expired CLOR-N-OIL Test kits		Liquid ☒ Solid [] Aerosol []		Cylinder [] Material to Waste ☒	
Type/Size of Container (DOT Code):				Gross Weight (Lbs):	
DM [] Size:				86.5	
DF ☒ Size: 2.50F					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []		Container Supplied by HWMC: Yes [] No ☒		Other [] (provide explanation in comments section below):	
Section B: Generator Information					
Organization/Contractor/Project: NWS					
Point of Contact: X WAYNE BAINBRIDGE		Signature: X [Signature]		Telephone: X 575-442-0051	
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) ☒	Cover (3) []	1892 (4) []	1893 (5) []	90 Day Yard Other []
22903 (A) ☒ 20 Dec 2017	22904 (B) []	22905 (C) []	22906 (D) []	S22895#	22895 PAD []
Container Moved To: 22903A				Other:	
On (Date): 20 Dec 2017					
Waste Disposal Cost:					
Time Req'd to Process Waste:		Hrs: Min:		Container Cost:	
CLIN ID:		Cost Per Lb:		Type:	Qty: \$
Total:				Type:	Qty: \$
1348 No.:					
Disposal Cost:			Customer APC/JONO:		
Delivery Order No:		Line Item No.:		Manifest No.:	
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR Organization: North Wind
 Address: 100 Headquarters Ave. NWS office
 WSMR, NM 88002 Bldg. Number: N/A
 US EPA ID: NM2750211235 SAP ID:
 State ID: N/A DODAAC: WM0M58

•Waste Profile•

NWS 17 347 01

Replaces:
 Contact: Aran Armstrong
 Phone: 575-647-4221

1. Name of Waste: Expired Clor-N-Oil PCB Screening Kits
2. Clin: FL04
3. Generating Process: Material to Waste
4. Projected Volume: 8 lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

•RCRA Characteristics•

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☒ Ignitable (D001) Flash Point: 48 - 144 °F

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☒ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
 ☐ Cyanide Reactive
 ☐ Sulfide Reactive

•Chemical/Material Composition•

Component	Concentration/Range
Sodium	0.35%
Naphthalene	0.17%
Diglyme	1.77%
Mercuric Nitrate	0.03%
Ethanol	4.03%
Organo-Sulfur Compound	6.15%
Sulfuric Acid	1.57%

•Shipping Information•

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
 Waste Flammable liquid, toxic, corrosive, n.o.s.(mercury, diglyme, sulfuric acid)

Waste Codes: D001,D002, D009

Hazard Class: 3(6.1,8) UN or NA No.: UN3286 PG: II

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 131

Part 3

•Basis for Information•

☐ Chemical Analysis (attach test results) ☒ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached MSDS for Dexsil Clor-N-Oil 50 (07/27/15).

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Digitally signed by HARRISON.JON.EDWARD.14085882
 DN: cn=J.E. Harrison, o=U.S. Government, ou=DoD, ou=PR, ou=USA,
 email=HARRISON.JON.EDWARD.14085882
 Date: 2017.12.13 14:52:58 -0700

Date
 13-Dec-17

SAFETY DATA SHEET

To comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CLOR-N-OIL 20, 50 or 500 PCB SCREENING KIT

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Dexsil Corporation
One Hamden Park Drive
Hamden, CT 06517

Telephone Number: (203) 288-3509
Email: info@dexsil.com

Emergency Telephone Number:
USA (800) 424-9300 (CHEMTREC)
INTL (703) 527-3887

Product Description: The CLOR-N-OIL product line is a field Test Kit for PCB Screening of Electrical Insulating Liquid

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Ampute 1 (gray color) Combustible Liquid H227	Combustible Liquid. In contact with water releases flammable gases which may ignite spontaneously	Skin Corr. 1B+H314 Eye Dam. 1/3H318	Causes severe skin burns and eye damage. Causes serious eye damage
Ampute 2 (blue-dot) Flam. Liq. 3/3H228 Acute Tox. 4/3H302 Car. 2/3H351	Flammable liquid and vapor. Harmful if swallowed. Suspected of causing cancer.	Repr. 1B/H360FD Aquatic Chronic 2/3H410	May damage fertility. May damage the unborn child. Very toxic to aquatic life with long lasting effects
Ampute 3 (colored-dot) No applicable GHS categories			
Ampute 4 (red-green color) Flam. Liq. 2/3H228	Highly Flammable liquid and vapor.	Eye Irrit. 2/3H319	Causes serious eye irritation.
Ampute 5 (colorless) Aquatic Acute 1/3H400	Very toxic to aquatic life	Eye Irrit. 2/3H319	Causes serious eye irritation.
Aqueous Solution Corrosive 1/3H302 May be corrosive to metals Skin Irrit. 2/3H319 Causes skin irritation		Eye Dam. 1/3H318	Causes serious eye damage

2.2 Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows

Ampute 1 (gray color)



Danger

H227 Combustible liquid
H280 In contact with water releases flammable gases which may ignite spontaneously
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire
P231+232 Handle under inert gas. Protect from moisture
P261 Avoid breathing dust / fume / gas / mist / vapors / spray
P280 Do not get in eyes, on skin, or on clothing
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P331 Do NOT induce vomiting.
P335+334 Brush off loose particles from skin. Immerse in cool

water / wrap in wet bandages.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 Wash contaminated clothing before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
[Storage]:
P402+404 Store in a dry place. Store in a closed container.
P403+233 Store in a well ventilated place. Keep cool.
P405 Store locked up.
[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

Ampute 2 (blue-dot)



Danger

H228 Flammable liquid and vapor.
H302 Harmful if swallowed.
H351 Suspected of causing cancer
H360 May damage fertility. May damage the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

[Prevention]:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P260 Do not breathe mist / vapors / spray
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

P284 Wear respiratory protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P331 Do NOT induce vomiting.
P335+334 Brush off loose particles from skin. Immerse in cool water / wrap in wet bandages.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
[Storage]:
P403+233 Store in a well ventilated place. Keep container tightly closed.
P405 Store locked up.
[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

Ampute 3 (colored-dot): No applicable GHS categories

Ampute 4 (red-green color)



Danger

H228 Highly flammable liquid and vapor
H319 Causes serious eye irritation.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P280 Wear protective gloves / eye protection / face

protection.

[Response]:

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
[Storage]:
P403+233 Store in a well ventilated place. Keep container tightly closed.
[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

Ampute 5 (colorless)



Warning

H319 Causes serious eye irritation.
H400 Very toxic to aquatic life

[Prevention]:

P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do - continue rinsing.
P317+313 If eye irritation persists: Get medical advice / attention.
P361 Collect spillage.
[Storage]:
No GHS storage statements
[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations

Aqueous Solution



Danger

H302 May be corrosive to metals
H314 Causes skin irritation.
H318 Causes serious eye damage
[Prevention]:
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. No NOT induce vomiting
P302+352 IF ON SKIN: Wash with plenty of soap and water
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician
P362 Take off contaminated clothing and wash before reuse
[Storage]:
No GHS storage statements
[Disposal]:
No GHS disposal statements

For additional information on toxicity, please refer to Section 11

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

The CLOR-N-OIL PCB Screening Kit consists of one test tube containing two ampules, one test tube containing two ampules plus an aqueous solution, and another separate ampule. All versions of CLOR-N-OIL (20, 50 and 500) contain less than or equivalent amounts of the compounds listed below

Component	Contents	CAS#	EC#	% liquid
Ampute 1 (gray color)	Sodium	7440-23-5	231-132-9	0.35%
	dispersed in oil	64742-46-7	285-148-2	1.41%
Ampute 2 (blue-dot)	Naphthalene in	91-20-3	202-049-5	0.17%
	Diglyme Solution	111-96-6	203-924-4	1.77%
Ampute 3 (colored-dot)	Mercuric Nitrate	10045-94-0	233-152-3	0.03%
	in water	7732-18-5	231-791-2	7.71%
Ampute 4 (red-green color)	Ethanol	64-17-5	200-578-6	4.03%
Ampute 5 (colorless)	Organo-Sulfur Compound	128-04-1	204-878-7	6.15%
	Sulfuric Acid	7664-93-9	231-639-5	1.57%
Aqueous Solution	in water	7732-18-5	231-791-2	76.81%
				100.00%

SECTION 4 - FIRST AID MEASURES

First Aid: In case of contact with reagents, rinse well with water

Eye Contact: For all kit components, flush eyes with large amounts of water for 15 minutes. Seek medical attention.

Skin contact: Flush with large amounts of water. Use soap and water to wash away organic components

Inhalation: In case of inhalation, remove to fresh air.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

SECTION 5 - FIRE AND EXPLOSION HAZARD

Flash Point	Ampute 1	143.6°F	62.0°C
	Ampute 2	135°F	57.2°C
	Ampute 3	N/A	N/A
	Ampute 4	48°F	8.89°C
	Ampute 5	N/A	N/A

Flammable Limit Unknown

Extinguishing Media DO NOT USE WATER ON A SODIUM FIRE Use Dry chemical, foam, CO₂

Special Fire Fighting Procedures Do not use water. Wear SCBA. Avoid breathing sodium oxide fumes that will form on combustion.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Protection Chemical safety glasses and rubber gloves

Spills and Leaks **Ampute 1 - Sodium Ampule**
Cover with dry soda ash or salt. Store in a well ventilated area away from moisture

Ampute 2 - Naphthalene/Diglyme Ampule
Absorb completely and dispose of as organic waste

Ampute 3 - Mercuric Nitrate Ampule
Absorb completely and flush area with water

Ampute 4 - Ethanol Ampule
Solvent absorbent recommended for spills. Flush area with water

Ampute 5 - Disposal Ampule
Absorb completely and flush area with water

Aqueous Solution
Absorb completely and flush area with water

SECTION 7 - HANDLING AND STORAGE

Protective equipment Wear appropriate safety equipment when performing the test on site

Storage Store test kits in a cool, dry place. Check expiration date prior to performing test

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls None required

Personal Protective Equipment (PPE)

Respiratory protection None required during normal use
Ventilation Perform test only in a well-ventilated area
Hand protection Always wear rubber gloves when performing the CLOR-N-Oil test. Vison gloves are recommended for use with PCBs

Eye protection Wear safety glasses
General Hygiene Measures Avoid contact with skin, eyes and clothing Wash after running tests.

SECTION 9 - PHYSICAL/CHEMICAL CHARACTERISTICS

Property	Ampule 1	Ampule 2	Ampule 3	Ampule 4	Ampule 5	Aq. Sol'n
Boiling Pt. °C	N/A	185	100	78	100	>100
Vapor Pressure mm Hg @ 21°C	N/A	0.5	18	44	18	18
Solubility in Water	reacts	75%	complete	miscible	miscible	complete
Specific Gravity	0.86	0.95	1.02	0.79	1.17	1.09
Percent Volatile	40	100	none	99	none	none
Evaporation Rate Butyl Acetate=1	N/A	0.36	N/A	2.7	N/A	N/A
Appearance	gray	colorless	colorless	red-green	colorless	colorless
Odor	none	ether-like	none	pleasant	sulfur-like	none

N/A = not available

SECTION 10 - REACTIVITY DATA

Chemical Stability All components are stable under recommended storage conditions.

Conditions to Avoid Do not expose broken sodium ampule to moisture Keep from strong oxidizers.

Hazardous Decomposition Products Sodium will form hydrogen and sodium oxide when moisture is present.
Diglyme may form peroxides on exposure to air. Other solutions are stable.

Hazardous Polymerization Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Carcinogenicity

NTP: Yes IARC: Yes Z List: No OSHA Reg: No

Diglyme may cause teratogenic or mutagenic effects and cause harm to the unborn child.

Toxicity Data

COMPONENT	CONTENTS	TLV / (PEL)
Ampule 1 (gray color)	[Sodium] dispersed in oil	[2 mg/m ³ / (2 mg/m ³)]
Ampule 2 (blue-dot)	[Naphthalene] in Diglyme Solution	[50 mg/m ³ / (50 mg/m ³)] 5 ppm
Ampule 3 (colored-dot)	[Mercuric Nitrate] in water	[0.1 mg/m ³ / (0.1 mg/m ³)]
Ampule 4 (red-green color)	Ethanol	1900 mg/m ³ / (1900 mg/m ³)
Ampule 5 (colorless)	Organo-Sulfur Compound	1 mg/m ³ / (1 mg/m ³)
Aqueous Solution	[Sulfuric Acid] in water	[1 mg/m ³ / (1 mg/m ³)]

SECTION 12 - ECOLOGICAL INFORMATION

Naphthalene: Ecotoxicity in water (LC50): 305.2 ppm 96 hr(s) (Trout)

Ethanol: Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L, 96 Hr; Flow-through @ 24-24 °C/Fish: Rainbow trout: LC50 = 11200 mg/L, 24 Hr; Fingerling (Unspecified) Bacteria: Phytobacterium phosphoreum: EC50 = 34900 mg/L, 5-30 min; Microtox test: When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bioconcentrate in fish.

Organo-Sulfur Compound: Ecotoxicity: Fish: Rainbow trout: LC50 = 2.6 mg/L, 96 Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 0.508 mg/L, 15 minutes; Microtox test.

Mercuric Nitrate: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Sampling Pipette: Pipette may contain residual PCBs Dispose of in accordance with all applicable federal, state and local environmental regulations.

Test Tube 1: Contains reacted oil sample and organic liquid and may contain residual PCBs Dispose of as an organic waste in accordance with all applicable federal, state and local environmental regulations.

Test Tube 2: Upon completion of test including the addition of ampule 5, contents will pass US EPA TCLP test. Dispose of in accordance with all applicable federal, state and local environmental regulations.

SECTION 14 - TRANSPORTATION INFORMATION

DOT			
Proper Shipping Name:	None		
Domestic Highway or Rail Transport Only:	As originally packaged by Dexsil Corporation, under Competent Authority Approval CA-1996100010, packages are approved for transportation by domestic highway or rail transport only. Packaging conforms to conditions and limitations specified in 49 CFR 173.4.		
IATA			
Proper Shipping Name:	Alkali Metal Dispersion	Ethanol	Flammable liquid, n.e.s (diglyme)
UN Number:	1391	1170	1993
Hazard Class:	4.3	3	3
Packing Group	I	II	III

SECTION 15 - REGULATORY INFORMATION

SARA Listed: Mercuric nitrate, naphthalene/diglyme component, Organo-sulfur compound, and ethanol are identified on SARA Sec. 313.

TSCA Inventory Items: Mercuric nitrate, naphthalene/diglyme component, Organo-sulfur compound, and ethanol.

CERCLA Listed: Mercuric nitrate, naphthalene, Organo-sulfur compound and ethanol.

EINECS: Components of this product are on the European Inventory of Existing Commercial Chemical Substances.

SECTION 16 - OTHER INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and danger of these chemicals for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. These chemicals may interact with other substances. Since the potential uses are so varied, Dexsil cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Dexsil warrants that the chemicals

meet the specifications set forth on the label.

DEXSIL DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Dexsil will periodically revise this Material Safety Data Sheet. CHEMTREC emergency telephone number is to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to the Customer Service Dept. at 1-203-268-3509.

For additional information, contact Dexsil.

Date Prepared: 07-27-2015 Revision 13

HWMC

Hazardous Waste Management Center
Building 1870
WSMR, NM 88002
(575) 678-4641

Waste Turn-in Sheet

Date: 07/28/17		Name of HWMC Receiving Person: Harrison / Hernandez			
Section A: Container Information					
Container No.(s): 2017-0626		Waste Profile ☒ Awaiting Analysis ☒	Waste Profile Number: PW 17 271 02		
Accumulation Start Date: 07/28/17		MSDS []			
Description/Nomenclature: PPE SRC-SPEFF -	Liquid []	Solid ☒ Aerosol []	Cylinder [] Material to Waste []		
Type/Size of Container (DOT Code):		Gross Weight (Lbs):			
DM [] Size:		465			
DF ☒ Size: 3.5 gallons					
Other [] (state type & size):					
Container Received is Acceptable: Yes ☒ No []	Container Supplied by HWMC: Yes [] No ☒	Other [] (provide explanation in comments section below):			
Section B: Generator Information					
Organization/Contractor/Project: NW for PW Kelly					
Point of Contact: adam armstrong	Signature: [Signature]	Telephone: 575-647-4221			
Section C: HWMC Personnel Only					
Accumulation/Storage Location:					
1890 (1) []	1891 (2) []	Cover (3) []	1892 (4) []	1893 (5) ☒	90 Day Yard Other []
22903 (A) []	22904 (B) []	22905 (C) ☒	22906 (D) []	S22895#	22895 PAD []
Container Moved To: 22905-C On (Date): 16 Oct 2017				Other:	
Waste Disposal Cost:					
Time Req'd to Process Waste: Hrs: Min:			Container Cost:		
CLIN ID:		Cost Per Lb:	Type:	Qty:	\$
Total:			Type:	Qty:	\$
1348 No.:					
Disposal Cost:			Customer APC/JONO:		
Delivery Order No:		Line Item No.:	Manifest No.:		
Comments:					

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Public Works Directorate
.... Station Range Center Septic L
Bldg. Number: N/A
SAP ID: N/A
DODAAC: WM0M58

●Waste Profile●

PW 17 271 02
Replaces: PW 16 259 03
Contact: Kelly Norwood
Phone: 575-678-7082

1. Name of Waste: PPE from stallion septic effluent sampling
2. Clin: TX07
3. Generating Process: Environmental Sampling
4. Projected Volume: 5 lbs Mode of Collection: Other: Pail
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

●RCRA Characteristics●

●Chemical/Material Composition●

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A
☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: 7.80

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☒ F- Listed Waste: F003,F005

☐ P - Listed Waste:

☐ U - Listed Waste:

Component	Concentration/Range
1,3-Dichlorobenzene	0.0022 - 0.0025 mg/L
2,4-Dichlorophenol	0.0027 mg/L
Acetone	0.017 mg/L
Barium	0.012 - 0.049 mg/L
Bis(2-ethylhexyl)phthalate	0.00097 mg/L
Diethyl phthalate	0.00061 mg/L
Pyridine	0.00066 mg/L
Selenium	0.152 mg/L

●Shipping Information●

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Hazardous waste, solid, n.o.s.(acetone, pyridine)

Waste Codes: F003,F005
Hazard Class: 9 UN or NA No.: NA3077 PG: PGIII
CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See Hall Envr. Analysis Lab, Inc. results numbers 1707D11-001/1607D19-001, and WSMR Chemistry Lab results number 1507005-001.

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Date
28-Sep-17

CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707D11-001

Analytical Report
Lab Order 1707D11
Date Reported: 8/22/2017

Client Sample ID: SRC-SPEff-0717WC
Collection Date: 7/25/2017 10:57:00 AM
Received Date: 7/26/2017 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						
Mercury					1	Analyst: MED 8/2/2017 10:53:48 AM
EPA 8010B: TOTAL RECOVERABLE METALS						
						Analyst: ELS
Arsenic	ND	0.020		mg/L	1	8/12/2017 10:39:18 AM
Barium	ND	0.820		mg/L	1	8/8/2017 1:25:05 PM
Cadmium	ND	0.0020		mg/L	1	8/8/2017 1:25:05 PM
Chromium	ND	0.0060		mg/L	1	8/8/2017 1:25:05 PM
Lead	ND	0.0050		mg/L	1	8/12/2017 10:39:18 AM
Selenium	ND	0.050		mg/L	1	8/8/2017 1:25:05 PM
Silver	ND	0.0050		mg/L	1	8/8/2017 1:25:05 PM
EPA METHOD 8260B: VOLATILES						
						Analyst: AG
Benzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Toluene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Ethylbenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1,2-Dinitrobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1,3,5-Trinitrobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1,2-Dichlorobenzene (EDC)	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1,2-Dibromobenzene (EDB)	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Naphthalene	ND	2.0		µg/L	1	7/28/2017 1:38:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/28/2017 1:38:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/28/2017 1:38:53 PM
Acetone	ND	10		µg/L	1	7/28/2017 1:38:53 PM
Bromobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Bromochlorobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Bromobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Bromomethane	ND	3.0		µg/L	1	7/28/2017 1:38:53 PM
2-Butanone	ND	10		µg/L	1	7/28/2017 1:38:53 PM
Carbon disulfide	ND	10		µg/L	1	7/28/2017 1:38:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Chlorobenzene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Chloroethane	ND	2.0		µg/L	1	7/28/2017 1:38:53 PM
Chloroform	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
Chloroform	ND	3.0		µg/L	1	7/28/2017 1:38:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1-Chlorotoluene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
cis-1,2-DCB	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/28/2017 1:38:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/28/2017 1:38:53 PM

Refer to the OC Summary report and sample login checklist for flagged OC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix		E Value above quantitative range
H Holding time for preparation or analysis exceeded		J Analyte detected below quantitative limit
ND Not Detected at the Reporting Limit		P Sample pH Not in Range
PQL Practical Quantitative Limit		RL Reporting Detection Limit
% % Recovery outside of range due to dilution or matrix		W Sample container temperature is out of limit as specified

Page 1 of 14

CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707D11-001

Analytical Report
Lab Order 1707D11
Date Reported: 8/23/2017

Client Sample ID: SRC-SPEFF-0717WC
Collection Date: 7/23/2017 10:57:00 AM
Received Date: 7/26/2017 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: AG
Dibromochloromethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Dibromomethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,3-Dichlorobenzene	2.5	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/26/2017 1:38:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
2-Hexanone	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Methylene Chloride	ND	3.0		µg/L	1	7/26/2017 1:38:53 PM
n-Butylbenzene	ND	3.0		µg/L	1	7/26/2017 1:38:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Styrene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1,2-Trichloroethane	ND	2.0		µg/L	1	7/26/2017 1:38:53 PM
Trichloroethene (PCE)	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
trans-1,2-DCDE	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/26/2017 1:38:53 PM
Vinyl chloride	ND	1.0		µg/L	1	7/26/2017 1:38:53 PM
Xylenes, Total	ND	1.5		µg/L	1	7/26/2017 1:38:53 PM
Sum: 1,2-Dichloroethane-d4	81.5	70-130		%Rec	1	7/26/2017 1:38:53 PM
Sum: 4-Bromodifluorobenzene	85.5	70-130		%Rec	1	7/26/2017 1:38:53 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding Times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Sample Not Detected in the Reporting Limit	P	Sample pH Not in Range
PQL	Practical Quantitation Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container compromise is out of limit as specified

CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707D11-001

Analytical Report
Lab Order 1707D11
Date Reported: 9/19/2017

Client Sample ID: SRC-SPEff-0717WC
Collection Date: 7/25/2017 10:57:00 AM
Received Date: 7/26/2017 8:50:00 AM

Analytes	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B : VOLATILES						
Surr: Dibromofluoromethane	76.5	70-130	%Rec		1	7/26/2017 1 38 53 PM
Surr: Toluene-d8	85.0	70-130	%Rec		1	7/26/2017 1 38 53 PM
EPA 8270D : SEMIVOLATILES						
1,2,4-Trichlorobenzene	ND	0.50	µg/L		1	8/9/2017
1,2-Dichlorobenzene	ND	0.50	µg/L		1	8/9/2017
1,2-Oxyphenylhydrazine	ND	0.50	µg/L		1	8/9/2017
1,3-Dichlorobenzene	2.2	0.50	µg/L		1	8/9/2017
1,4-Dichlorobenzene	ND	0.50	µg/L		1	8/9/2017
1-Methylnaphthalene	ND	0.50	µg/L		1	8/9/2017
2,3,4,6-Tetrachlorophenol	ND	0.50	µg/L		1	8/9/2017
2,3,5,6-Tetrachlorophenol	ND	0.50	µg/L		1	8/9/2017
2,4,5-Trichlorophenol	ND	0.50	µg/L		1	8/9/2017
2,4,6-Trichlorophenol	ND	0.50	µg/L		1	8/9/2017
2,4-Dichlorophenol	ND	0.50	µg/L		1	8/9/2017
2,4-Dimethylphenol	ND	0.50	µg/L		1	8/9/2017
2,4-Dinitrophenol	ND	0.50	µg/L		1	8/9/2017
2,4-Dinitrotoluene	ND	0.50	µg/L		1	8/9/2017
2-Chloronitrobenzene	ND	0.50	µg/L		1	8/9/2017
2-Chlorophenol	ND	0.50	µg/L		1	8/9/2017
2-Methylnaphthalene	ND	0.50	µg/L		1	8/9/2017
2-Methylphenol	ND	0.50	µg/L		1	8/9/2017
2-Nitroaniline	ND	0.50	µg/L		1	8/9/2017
2-Nitrophenol	ND	0.50	µg/L		1	8/9/2017
3,3'-Dichlorobenzidine	ND	0.50	µg/L		1	8/9/2017
3,4-Dimethylphenol	ND	0.50	µg/L		1	8/9/2017
3-Bromoaniline	ND	0.50	µg/L		1	8/9/2017
4-(Cis)-2-methylphenol	ND	0.50	µg/L		1	8/9/2017
4-Bromophenyl phenyl ether	ND	0.50	µg/L		1	8/9/2017
4-Chloro-3-methylphenol	ND	0.50	µg/L		1	8/9/2017
4-Chloroaniline	ND	0.50	µg/L		1	8/9/2017
4-Chlorophenyl phenyl ether	ND	0.50	µg/L		1	8/9/2017
4-Nitroaniline	ND	0.50	µg/L		1	8/9/2017
4-Nitrophenol	ND	0.50	µg/L		1	8/9/2017
Acaraphthane	ND	0.50	µg/L		1	8/9/2017
Acetaminophylene	ND	0.50	µg/L		1	8/9/2017
Aniline	ND	0.50	µg/L		1	8/9/2017
Anthracene	ND	0.50	µg/L		1	8/9/2017
Benzidine	ND	0.50	µg/L		1	8/9/2017
Benzoyl h / perylene	ND	0.50	µg/L		1	8/9/2017

Refer to the OC Summary report and sample login checklist for flagged OC data and preservation information.

Qualifiers:	* Value exceeds maximum Carnum name Level - D Sample Diluted Due to Matrix - H Holding times for preparation or analysis exceeded - ND Not Detected at the Reporting Limit - PQL Quantitative Limit - S % Recovery outside of range due to dilution or matrix	- B Value detected in the associated Method Blank - E Value above quantitation range - J Analyte detected below quantitation limits - P Sample Not In Range - R/L Reporting Detecties Limit - W Sample container temperature is out of limit as specified	Page 3 of 20
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CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707D11-001

Analytical Report
Lab Order 1707D11
Date Reported: 9/19/2017

Client Sample ID: SRC-SPEff-0717WC
Collection Date: 7/23/2017 10:57:00 AM
Received Date: 7/26/2017 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 8270D: SEMIVOLATILES						
Analyst: SUB						
Benz(a)anthracene	ND	0.50		µg/L	1	8/9/2017
Benz(a)pyrene	ND	0.50		µg/L	1	8/9/2017
Benz(b)fluoranthene	ND	0.50		µg/L	1	8/9/2017
Benzofluoranthene	ND	0.50		µg/L	1	8/9/2017
Benzyl alcohol	ND	0.50		µg/L	1	8/9/2017
Bis(2-chloroethoxy)methane	ND	0.50		µg/L	1	8/9/2017
Bis(2-chloroethyl)ether	ND	0.50		µg/L	1	8/9/2017
Bis(2-chloroisopropyl)ether	ND	0.50		µg/L	1	8/9/2017
Bis(2-ethylhexyl)phthalate	ND	0.50		µg/L	1	8/9/2017
Butyl benzyl phthalate	ND	0.50		µg/L	1	8/9/2017
Carbazole	ND	0.50		µg/L	1	8/9/2017
Chrysene	ND	0.50		µg/L	1	8/9/2017
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	8/9/2017
Dibenzofuran	ND	0.50		µg/L	1	8/9/2017
Diethyl phthalate	ND	0.50		µg/L	1	8/9/2017
Dimethyl phthalate	ND	0.50		µg/L	1	8/9/2017
D-n-butyl phthalate	ND	0.50		µg/L	1	8/9/2017
D-n-octyl phthalate	ND	0.50		µg/L	1	8/9/2017
Fluoranthene	ND	0.50		µg/L	1	8/9/2017
Fluorene	ND	0.50		µg/L	1	8/9/2017
Hexachlorobenzene	ND	0.50		µg/L	1	8/9/2017
Hexachlorobutadiene	ND	0.50		µg/L	1	8/9/2017
Hexachlorocyclopentadiene	ND	0.50		µg/L	1	8/9/2017
Hexachloroethane	ND	0.50		µg/L	1	8/9/2017
Indeno(1,2,3-c)pyrene	ND	0.50		µg/L	1	8/9/2017
Isophrene	ND	0.50		µg/L	1	8/9/2017
Naphthalene	ND	0.50		µg/L	1	8/9/2017
Nitrobenzene	ND	0.50		µg/L	1	8/9/2017
N-Nitrosod-n-propylamine	ND	0.50		µg/L	1	8/9/2017
N-Nitrosodiphenylamine	ND	0.50		µg/L	1	8/9/2017
Pentachlorophenol	ND	0.50		µg/L	1	8/9/2017
Phenanthrene	ND	0.50		µg/L	1	8/9/2017
Phenol	ND	0.50		µg/L	1	8/9/2017
Pyrene	ND	0.50		µg/L	1	8/9/2017
Nitrosodimethylamine	ND	0.50		µg/L	1	8/9/2017
Pyridine	ND	0.50		µg/L	1	8/9/2017
Surr: 2,4,6-Trichlorophenol	114	43-120		%Rec	1	8/9/2017
Surr: 2-Fluorobiphenyl	95.0	56-127		%Rec	1	8/9/2017
Surr: 2-Fluorophenol	66.8	41-119		%Rec	1	8/9/2017

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank	
D	Sample Diluted Due to Matrix	E	Value above quantitation range	
H	Holding times for preparation or analysis exceeded	I	Analyte detected below quantitation limits	Page 4 of 30
ND	Not Detected at the Reporting Limit	P	Sample pH Not in Range	
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	% Recovery outside of range due to dilution or matrix	W	Sample containing temperature is out of limits as specified	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707D11
Date Reported: 8/19/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707D11-001Client Sample ID: SRC-SPEFF-0717WC
Collection Date: 7/25/2017 10:57:00 AM
Matrix: AQUEOUS
Received Date: 7/26/2017 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 8270D: SEMIVOLATILES						
Analyst: SUB						
Surr Nitrobenzene-d5	97.2	56-120	%Rec	1	8/9/2017	
Surr Phenol-d5	83.0	52-115	%Rec	1	8/9/2017	
Surr Terphenyl-d14	109	22-133	%Rec	1	8/9/2017	
SM4500-H+B: PH						
Analyst: JRR						
pH	7.47		H	pH units	1	7/31/2017 12:01:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limits as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1607D19
Date Reported: 8/28/2016CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607D19-001Client Sample ID: SRC-SPEFF-0716
Collection Date: 7/25/2016 12:00:00 PM
Matrix: AQUEOUS
Received Date: 7/26/2016 9:10:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 7470: MERCURY								
Analyst: pmf								
Mercury	ND	0.000053	0.00020		mg/L	1	8/3/2016 4:22:54 PM	26742
EPA 8010B: TOTAL RECOVERABLE METALS								
Analyst: MED								
Antimony	ND	0.017	0.050		mg/L	1	8/3/2016 10:41:30 AM	26744
Asenic	ND	0.0082	0.020		mg/L	1	8/3/2016 10:41:30 AM	26744
Barium	0.012	0.00070	0.020	J	mg/L	1	8/3/2016 10:41:30 AM	26744
Beryllium	ND	0.000085	0.0030		mg/L	1	8/3/2016 10:41:30 AM	26744
Cadmium	ND	0.00078	0.0020		mg/L	1	8/3/2016 10:41:30 AM	26744
Calcium	46	0.068	1.0		mg/L	1	8/3/2016 10:41:30 AM	26744
Chromium	ND	0.0012	0.0080		mg/L	1	8/3/2016 10:41:30 AM	26744
Copper	0.0058	0.0018	0.0080		mg/L	1	8/3/2016 10:41:30 AM	26744
Lead	ND	0.0041	0.0050		mg/L	1	8/3/2016 10:41:30 AM	26744
Magnesium	18	0.020	1.0		mg/L	1	8/3/2016 10:41:30 AM	26744
Nickel	0.0020	0.0018	0.010	J	mg/L	1	8/3/2016 10:41:30 AM	26744
Potassium	11	0.12	1.0		mg/L	1	8/3/2016 10:41:30 AM	26744
Selenium	ND	0.025	0.050		mg/L	1	8/3/2016 10:41:30 AM	26744
Silver	ND	0.00072	0.0050		mg/L	1	8/3/2016 10:41:30 AM	26744
Thallium	ND	0.029	0.050		mg/L	1	8/3/2016 10:41:30 AM	26744
Uranium	ND	0.011	0.10		mg/L	1	8/3/2016 10:41:30 AM	26744
Zinc	0.017	0.0020	0.020	J	mg/L	1	8/3/2016 10:41:30 AM	26744

EPA METHOD 8260B: VOLATILES

Analyst: BCN								
Benzene	ND	0.098	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Toluene	0.31	0.12	1.0	J	µg/L	1	8/4/2016 3:42:00 PM	R36240
Ethylbenzene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2,4-Trichlorobenzene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,3,5-Trichlorobenzene	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2-Dibromochloroethane (EDB)	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Naphthalene	ND	0.063	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Acetone	17	4.9	10		µg/L	1	8/4/2016 3:42:00 PM	R36240
Bromobenzene	ND	0.098	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Bromodichloromethane	ND	0.14	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Bromoform	ND	0.10	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Bromomethane	ND	0.78	3.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2-Butanone	ND	0.74	10		µg/L	1	8/4/2016 3:42:00 PM	R36240
Carbon disulfide	ND	0.60	10		µg/L	1	8/4/2016 3:42:00 PM	R36240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limits as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1607D19
Date Reported: 8/28/2016CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607D19-001Client Sample ID: SRC-SPEFF-0716
Collection Date: 7/25/2016 12:00:00 PM
Matrix: AQUEOUS
Received Date: 7/26/2016 9:10:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES								
Analyst: BCN								
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Chlorobenzene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Chloroethane	ND	0.19	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Chloroform	ND	0.080	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Chloromethane	ND	0.21	3.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
cis-1,2-Dichloropropene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Dibromochloromethane	ND	0.087	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Dibromomethane	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,3-Dichlorobenzene	0.43	0.14	1.0	J	µg/L	1	8/4/2016 3:42:00 PM	R36240
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1-Dichloropropene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2,2-Dichloropropene	ND	0.16	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2,3-Dichloropropene	ND	0.17	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
2-Hexanone	ND	0.84	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Isopropylbenzene	ND	0.10	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
4-Methyl-2-pentanone	ND	0.43	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Methylene Chloride	ND	0.19	3.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
n-Butylbenzene	ND	0.16	3.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
n-Propylbenzene	ND	0.13	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Styrene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Tetrachloroethane (PCE)	ND	0.15	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limits as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1607D19
Date Reported: 8/28/2016CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607D19-001Client Sample ID: SRC-SPEFF-0716
Collection Date: 7/25/2016 12:00:00 PM
Matrix: AQUEOUS
Received Date: 7/26/2016 9:10:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES								
Analyst: BCN								
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Vinyl chloride	ND	0.20	1.0		µg/L	1	8/4/2016 3:42:00 PM	R36240
Xylenes, Total	ND	0.37	1.5		µg/L	1	8/4/2016 3:42:00 PM	R36240
Surr: 1,2-Dichloroethane-d4	99.0	0	70-130	%Rec		1	8/4/2016 3:42:00 PM	R36240
Surr: 4-Bromodichloromethane	96.0	0	70-130	%Rec		1	8/4/2016 3:42:00 PM	R36240
Surr: Dibromodichloromethane	97.2	0	70-130	%Rec		1	8/4/2016 3:42:00 PM	R36240
Surr: Toluene-d8	101	0	70-130	%Rec		1	8/4/2016 3:42:00 PM	R36240
EPA 8270D: SEMIVOLATILES								
Analyst: SUB								
1,2,4-Trichlorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
1,2-Dichlorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
1,2-Dichloroethane	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
1,4-Dichlorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
1-Methylnaphthalene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,3,4,5-Tetrachlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,3,5,6-Tetrachlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4,5-Trichlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4,6-Trichlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4-Dichlorophenol	2.7	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4-Dimethylphenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4-Dinitrophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4-Dinitrotoluene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2,4-Dibromotoluene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Chloronaphthalene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Chlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Methylnaphthalene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Methylphenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Nitroaniline	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
2-Nitrophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
3,3'-Dichlorobenzidine	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
3,4-Dimethylphenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
3-Nitroaniline	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4,6-Dinitro-2-methylphenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4-Bromobenzyl phenyl ether	ND	0.60	0.60		µg/L	1	8/5/2016	R36842

CLIENT: North Wind Services
Project: Wastewater (20033 011)
Tab ID: 1607D19-001

Client Sample ID: SRC-SPEff-0716
Collection Date: 7/25/2016 12:00:00 PM
Received Date: 7/26/2016 9:10:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 8270-D: SEMIVOLATILES							Analyst: SUB	
4-Chloro-3-methylphenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4-Chloroaniline	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4-Chlorophenyl phenyl ether	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4-Fluorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
4-Nitrophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Acenaphthylene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Acenaphthylene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Aniline	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Anthracene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzidine	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzofluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzofluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzofluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzofluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzofluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Benzyl alcohol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Bis(2-chlorobenzyl)methane	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Bis(2-chlorobenzyl)ether	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Bis(2-chlorobenzyl)ether	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Bis(2-ethylhexyl)phthalate	0.97	0.60	0.60		µg/L	1	8/5/2016	R36842
Butyl benzyl phthalate	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Carbazole	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Chrysene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Dibenz(a,h)anthracene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Dibenzofuran	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Dibutyl phthalate	0.61	0.60	0.60		µg/L	1	8/5/2016	R36842
Dimethyl phthalate	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Di-n-octyl phthalate	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Di-n-octyl phthalate	ND	0.0	0.0		µg/L	1	8/5/2016	R36842
Fluoranthene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Fluorene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Hexachlorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Hexachlorobutadiene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Hexachlorocyclopentadiene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Hexachlorobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Indeno(1,2,3-cd)pyrene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Isophthalene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Naphthalene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Nitrobenzene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
s	* Recoveries outside of range due to dilution or matrix	W	Sample container temperature is out of limits as specified

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CLIENT: North Wind Services
Project: Wastewater (20033.011)
Lab ID: 1607D19-001

Client Sample ID: SRC-SPEII-0716
Collection Date: 7/25/2016 12:00:00 PM
Received Date: 7/26/2016 9:10:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 8270D: SEMIVOLATILES							Analyst: SUB	
N-Nitrosodimethylamine	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
N-Nitrosod-n-propylamine	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
N-Nitrosodphenylamine	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Penta-chlorophenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Phenanthrene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Phenol	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Pyrene	ND	0.60	0.60		µg/L	1	8/5/2016	R36842
Pyridine	0.56	0.60	0.60		µg/L	1	8/5/2016	R36842
Sum: 2,4,6-Trichlorophenol	108		43-120	%Rec		1	8/5/2016	R36842
Sum: 2-Fluorobiphenyl	84.0		56-122	%Rec		1	8/5/2016	R36842
Sum: 2-Isopropenol	92.6		45-119	%Rec		1	8/5/2016	R36842
Sum: Nitrobenzene-d5	94.8		56-120	%Rec		1	8/5/2016	R36842
Sum: Phenol-d5	90.2		52-115	%Rec		1	8/5/2016	R36842
Sum: Terphenyl-d14	23.2		22-133	%Rec		1	8/5/2016	R36842
							Analyst: JRR	
BM4500-H+B: PH								
pH	7.80	0.100	1.68	H	pH units	1	7/26/2016 10:38:13 AM	R36887

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantization range
H	Holding time(s) for preparation or analysis extended	J	Analyte detected below quantization limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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WHITE SANDS MISSILE RANGE TDT-NST-A7 BLDG 1415 Dyer St. White Sands Missile Range, NM 88002
 CERTIFIED CHEMISTRY LABORATORY Phone 575 678.2992 Fax 575 678.1671

LABORATORY ANALYTICAL REPORT

CLIENT: North Wind
Lab Order: 1507005
Client Sample ID SRC-SPEFF-0719
Lab ID: 1507005-001

Date: 13-Aug-15
Project:
Collection Date: 7/8/2015 11:55:00 AM
Date Received: 7/8/2015
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		SW6010B		(SW3010A)		Analyst: EAG
Arsenic	ND	0.050		mg/L	1	7/15/2015 12:24:00 PM
Barium	0.049	0.010		mg/L	1	7/15/2015 12:24:00 PM
Cadmium	ND	0.050		mg/L	1	7/15/2015 12:24:00 PM
Chromium	ND	0.050		mg/L	1	7/15/2015 12:24:00 PM
Copper	ND	0.050		mg/L	1	7/15/2015 12:24:00 PM
Selenium	0.152	0.050	E	mg/L	1	7/15/2015 12:24:00 PM
Silver	ND	0.010		mg/L	1	7/15/2015 12:24:00 PM

NOTES:
Selenium signal enhanced by matrix effect. Concentration is considered to be an estimate.

MERCURY, TOTAL		SW7470A	(SW7470A)	Analyst MRR
Mercury	ND	0.0025	mg/L	7/14/2015 1:58:29 PM

SEMIVOLATILE ORG. COMP. BY GC/MS		SW8270C	(SW3510)	Analyst: AF
12.4-Trichlorobenzene	ND	50	µg/L	8/3/2015 5:25:08 PM
1,2-Dichlorobenzene	ND	50	µg/L	8/3/2015 5:25:08 PM
1,3-Dichlorobenzene	ND	50	µg/L	8/3/2015 5:25:08 PM
1,4-Dichlorobenzene	ND	50	µg/L	8/3/2015 5:25:08 PM
1-Methylnaphthalene	ND	50	µg/L	8/3/2015 5:25:08 PM
2,4,5-Trichlorophenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2,4,6-Trichlorophenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2,4-Dichlorophenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2,4-Dimethylphenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2,4-Dinitrophenol	ND	200	µg/L	8/3/2015 5:25:08 PM
2,4-Dinitrotoluene	ND	50	µg/L	8/3/2015 5:25:08 PM
2,6-Dinitrotoluene	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Chloronaphthalene	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Chlorophenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Methylnaphthalene	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Methylphenol	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Nitroaniline	ND	50	µg/L	8/3/2015 5:25:08 PM
2-Nitrophenol	ND	50	µg/L	8/3/2015 5:25:08 PM
3,4-Methylphenol	ND	50	µg/L	8/3/2015 5:25:08 PM
3-Nitroaniline	ND	50	µg/L	8/3/2015 5:25:08 PM
4,6-Dinitro-2-methylphenol	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Bromophenyl phenyl ether	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Chloro-3-methylphenol	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Chloroaniline	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Chlorophenyl phenyl ether	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Nitroaniline	ND	50	µg/L	8/3/2015 5:25:08 PM
4-Nitrophenol	ND	50	µg/L	8/3/2015 5:25:08 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
DF	Dilution Factor	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S Spike Recovery outside accepted recovery limits

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WHITE SANDS MISSILE RANGE TEDT WSI-AT BLDG 1415 Dyer St White Sands Missile Range, NM 88002
CERTIFIED CHEMISTRY LABORATORY Phone 575.678.2992 Fax 575.678.1671

LABORATORY ANALYTICAL REPORT

CLIENT: North Wind
Lab Order: 1507005
Client Sample ID SRC-SPEFF-0715
Lab ID: 1507005-001

Date: 13-Aug-15
Project:
Collection Date: 7/8/2015 11:55:00 AM
Date Received: 7/8/2015
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORG. COMP. BY GC/MS		5W8270C		(5W3510)		Analyst: AF
Acenaphthene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Acenaphthylene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Aniline	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Anthracene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Azobenzene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benz(a)anthracene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benz(a)pyrene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benz(b)fluoranthene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benz(g,h)perylene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benz(k)fluoranthene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benzic acid	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Benzyl alcohol	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Bis(2-chlorobenzoyl)methane	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Bis(2-chlorophenyl)ether	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Bis(2-chlorophenyl)propane	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Bis(2-ethylhexyl)phthalate	ND	100	µg/L		10	8/3/2015 5:25:09 PM
Butyl benzyl phthalate	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Carbazole	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Chrysene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Dibenz(a,h)anthracene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Dibenzofuran	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Diallyl phthalate	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Dimethyl phthalate	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Di-n-butyl phthalate	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Di-n-octyl phthalate	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Diphenylamine	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Fluoranthene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Fluorene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Hexachlorobenzene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Hexachlorobutadiene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Hexachlorocyclopentadiene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Hexachlorophene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Indeno(1,2,3-cd)pyrene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Isothophene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Naphthalene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Nitrobenzene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
N-Nitrosodimethylamine	ND	50	µg/L		10	8/3/2015 5:25:09 PM
N-Nitroso-n-propylamine	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Phenanthrophenol	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Phenanthrene	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Phenol	ND	50	µg/L		10	8/3/2015 5:25:09 PM
Pinene	ND	50	µg/L		10	8/3/2015 5:25:09 PM

Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
DF Dilution Factor	E	Value above quantitation range
H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	S	Spills Recovered outside accepted recovery limits

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LABORATORY ANALYTICAL REPORT

CLIENT: North Wind Date: 13-Aug-15
 Lab Order: 1507005 Project:
 Client Sample ID SRC-SPEFF-0715 Collection Date: 7/8/2015 11:55:00 AM
 Lab ID: 1507005-001 Date Received: 7/8/2015
 Matrix: WATER

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
SEMI-VOLATILE ORG. COMP. BY GC/MS						
Pyridine	ND	50		µg/L	10	8/3/2015 5:25:00 PM
Surr: 2,4,6-Trichlorophenol	0	28.8-117	S	%REC	10	8/3/2015 5:25:00 PM
Surr: 2-Fluorophenyl	0	7.15-72.4	S	%REC	10	8/3/2015 5:25:00 PM
Surr: 2-Fluorophenol	0	17-121	S	%REC	10	8/3/2015 5:25:00 PM
Surr: Nitrobenzene-d5	0	8.79-43.7	S	%REC	10	8/3/2015 5:25:00 PM
Surr: Phenol-d5	0	53.7-137	S	%REC	10	8/3/2015 5:25:00 PM
Surr: Terphenyl-d14	0	63.2-134	S	%REC	10	8/3/2015 5:25:00 PM
NOTES: S - Surrogate outside recovery limits. Sample required a 10x dilution. The reporting limits were adjusted accordingly.						
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,1,1,2-Tetrachloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1,1-Trichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1,2-Trichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1-Dichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1-Dichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,1-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2,4-Trimethylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2-Dibromomethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2-Dichlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2-Dichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,2-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,3,5-Trimethylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,3-Dichlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,3-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
1,4-Dichlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
2,2-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
2-Butanone	ND	500		µg/L	50	7/16/2015 3:44:00 PM
2-Chlorotoluene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
2-Hexanone	ND	500		µg/L	50	7/16/2015 3:44:00 PM
4-Chlorotoluene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
4-Isopropyltoluene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	7/16/2015 3:44:00 PM
Acetone	ND	500		µg/L	50	7/16/2015 3:44:00 PM
Benzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Bromobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Bromochloromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Bromodichloromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 DF Dilution Factor
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

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LABORATORY ANALYTICAL REPORT

CLIENT: North Wind Date: 13-Aug-15
 Lab Order: 1507005 Project:
 Client Sample ID SRC-SPEFF-0715 Collection Date: 7/8/2015 11:55:00 AM
 Lab ID: 1507005-001 Date Received: 7/8/2015
 Matrix: WATER

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
Bromoforn	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Carbon tetrachloride	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Chlorobenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Chloroform	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Chloromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
cis-1,2-Dichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
cis-1,3-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Dibromochloromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Dibromomethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Dichlorodifluoromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Ethylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Heptachlorobutadiene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Isopropylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
m,p-Xylene	ND	200		µg/L	50	7/16/2015 3:44:00 PM
Methylene chloride	ND	500		µg/L	50	7/16/2015 3:44:00 PM
Naphthalene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
n-Butylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
n-Propylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
o-Xylene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
sec-Butylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Styrene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
tert-Butylbenzene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Tetrachloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Toluene	ND	100		µg/L	50	7/16/2015 3:44:00 PM
trans-1,2-Dichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
trans-1,3-Dichloropropane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Trichloroethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Trichlorofluoromethane	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Vinyl chloride	ND	100		µg/L	50	7/16/2015 3:44:00 PM
Xylenes, Total	ND	0		µg/L	50	7/16/2015 3:44:00 PM
Surr: 4-Bromofluorobenzene	98.1	70-130	%REC		50	7/16/2015 3:44:00 PM
Surr: Dichlorofluoromethane	102	70-130	%REC		50	7/16/2015 3:44:00 PM
Surr: Toluene-d8	102	70-130	%REC		50	7/16/2015 3:44:00 PM

LABORATORY HYDROGEN ION (PH)
 Hydrogen Ion (pH) 8.98 0 pH Units 1 7/8/2015 10:05:00 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
 DF Dilution Factor
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Page 4 of 10

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●		●Waste Profile●
Name: US Army, WSMR	Organization: Test Center	TC 18 051 01 Replaces: TC 17 083 03 Contact: Stanley Woodward Phone: 575-678-4835
Address: 100 Headquarters Ave.	 TRAX Shop	
WSMR, NM 88002	Bldg. Number: 1550	
US EPA ID: NM2750211235	SAP ID: 1550D	
State ID: N/A	DODAAC: WM0M58	

1.	Name of Waste: Liquid Detergent Cleaner
2.	Clin: NR01
3.	Generating Process: Surface Preparation
4.	Projected Volume: <450Lbs Mode of Collection: Drum
5.	Comments:
6.	Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7.	Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

●RCRA Characteristics●	●Chemical/Material Composition●																								
Physical State: ☐ Solid ☒ Liquid ☐ SemiSolid ☐ Gas ☐ Other	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Component</th> <th style="width: 40%;">Concentration/Range</th> </tr> </thead> <tbody> <tr><td>Barium</td><td>3.87 mg/L</td></tr> <tr><td>Cadmium</td><td>0.133 mg/L</td></tr> <tr><td>Chromium</td><td>0.810 mg/L</td></tr> <tr><td>Lead</td><td>0.506 mg/L</td></tr> <tr><td>Selenium</td><td>0.245 mg/L</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Component	Concentration/Range	Barium	3.87 mg/L	Cadmium	0.133 mg/L	Chromium	0.810 mg/L	Lead	0.506 mg/L	Selenium	0.245 mg/L												
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Treatment Group: ☐ Wastewater ☐ Non-Wastewater ☒ Non-RCRA Waste (no other waste codes apply)																									
☐ Ignitable (D001) Flash Point: ☐ High TOC (>= 10%) ☐ Low TOC (<10%)																									
☐ Corrosive (D002) pH:																									
☐ Reactive (D003) ☐ Water Reactive ☐ Cyanide Reactive ☐ Sulfide Reactive																									
☐ Toxicity Characteristics: ☐ F- Listed Waste: ☐ P - Listed Waste: ☐ U - Listed Waste:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">●Shipping Information●</th> </tr> </thead> <tbody> <tr> <td colspan="2">DOT Hazardous Material? ☐ Yes ☒ No</td> </tr> <tr> <td colspan="2">Shipping Name: Non-regulated</td> </tr> <tr> <td colspan="2">Waste Codes: Non-regulated</td> </tr> <tr> <td>Hazard Class: UN or NA No.:</td> <td>PG:</td> </tr> <tr> <td colspan="2">CERCLA Reportable Qty (RQ):</td> </tr> <tr> <td colspan="2">2008 Emergency Response Guidebook EM Resp No.:</td> </tr> </tbody> </table>	●Shipping Information●		DOT Hazardous Material? ☐ Yes ☒ No		Shipping Name: Non-regulated		Waste Codes: Non-regulated		Hazard Class: UN or NA No.:	PG:	CERCLA Reportable Qty (RQ):		2008 Emergency Response Guidebook EM Resp No.:											
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Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☒ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached WSMR Lab ID 1501009-001 and memo written by Stanley Woodward

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Digitally signed by
 HARRISON.JON.EDWARD.1408595882
 Date: 2018.02.20 10:09:38 -0700

Date
 20-Feb-18

MEMO

To: Hazardous Waste Management Center (Building 1870)
White Sands Missile Range, NM 88002

From: Stanley Woodward,
SAP Manager, TRAX

Subject: Annual Profile Evaluation for SAP

This memo is to inform you that our current waste profile for satellite accumulation point (SAP) 1550D, Liquid Detergent Solution, is about to exceed the required annual limit of 365 days.

At this time we are requesting that our current waste profile #TC 17 083 03 be extended for an additional year. I certify, to the best of my knowledge, that our products, chemicals, and processes used in generating the waste stream are consistent with those of the prior year. I understand that if the products, chemicals, and/or processes have changed the waste must be analyzed prior to developing a new waste profile.

Printed Name. Stanley Woodward

Signature: 

Date: 2-14-18

LABORATORY ANALYTICAL REPORT

CLIENT: VZ ii Technologies
 Lab Order: 1501009
 Client Sample ID TC/1550D-1501211150-CD4104
 Lab ID: 1501009-001

Date: 04-Mar-15
 Project:
 Collection Date: 1/21/2015 11:50:00 AM
 Date Received: 1/21/2015
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL		SW6010B		(SW3010A)		Analyst: EAG
Arsenic	ND	0.050		mg/L	1	2/24/2015 1:35:25 PM
Barium	3.87	0.010		mg/L	1	2/24/2015 1:35:25 PM
Cadmium	0.133	0.050		mg/L	1	2/24/2015 1:35:25 PM
Chromium	0.810	0.050		mg/L	1	2/24/2015 1:35:25 PM
Lead	0.506	0.050		mg/L	1	2/24/2015 1:35:25 PM
Selenium	0.245	0.050		mg/L	1	2/24/2015 1:35:25 PM
Silver	ND	0.010		mg/L	1	2/24/2015 1:35:25 PM
MERCURY, TOTAL		SW7470A		(SW7470A)		Analyst: MRR
Mercury	ND	0.0025		mg/L	1	1/28/2015 1:01:59 PM
SEMIVOLATILE ORG. COMP. BY GC/MS		SW8270C				Analyst: AF
1,2,4-Trichlorobenzene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
1,2-Dichlorobenzene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
1,3-Dichlorobenzene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
1,4-Dichlorobenzene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
1-Methylnaphthalene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
2,4,5-Trichlorophenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2,4,6-Trichlorophenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2,4-Dichlorophenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2,4-Dimethylphenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2,4-Dinitrophenol	ND	9500		µg/Kg	2	2/12/2015 4:19:21 PM
2,4-Dinitrotoluene	ND	6400		µg/Kg	2	2/12/2015 4:19:21 PM
2,6-Dinitrotoluene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
2-Chloronaphthalene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
2-Chlorophenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2-Methylnaphthalene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
2-Methylphenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
2-Nitroaniline	ND	6400		µg/Kg	2	2/12/2015 4:19:21 PM
2-Nitrophenol	ND	4800		µg/Kg	2	2/12/2015 4:19:21 PM
3/4-Methylphenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
3-Nitroaniline	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
4,6-dinitro-2-methylphenol	ND	9500		µg/Kg	2	2/12/2015 4:19:21 PM
4-Bromophenyl phenyl ether	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
4-Chloro-3-methylphenol	ND	4800		µg/Kg	2	2/12/2015 4:19:21 PM
4-Chloroaniline	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
4-Chlorophenyl phenyl ether	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
4-Nitroaniline	ND	6400		µg/Kg	2	2/12/2015 4:19:21 PM
4-Nitrophenol	ND	6400		µg/Kg	2	2/12/2015 4:19:21 PM
Acenaphthene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM

Qualifiers: * Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
 DF Dilution Factor E Value above quantitation range
 H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit S Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: VZ ii Technologies
 Lab Order: 1501009
 Client Sample ID TC/1550D-1501211150-CD4104
 Lab ID: 1501009-001

Date: 04-Mar-15
 Project:
 Collection Date: 1/21/2015 11:50:00 AM
 Date Received: 1/21/2015
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORG. COMP. BY GC/MS		SW8270C		Analyst: AF		
Acenaphthylene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Aniline	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Anthracene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Azobenzene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Benz(a)anthracene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Benzo(a)pyrene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Benzo(b)fluoranthene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Benzo(g,h,i)perylene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Benzo(k)fluoranthene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Benzoic acid	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Benzyl alcohol	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Bis(2-chloroethoxy)methane	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Bis(2-chloroethyl)ether	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Bis(2-chloroisopropyl)ether	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Bis(2-ethylhexyl)phthalate	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Butyl benzyl phthalate	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Carbazole	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Chrysene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Dibenz(a,h)anthracene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Dibenzofuran	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Diethyl phthalate	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Dimethyl phthalate	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Di-n-butyl phthalate	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Di-n-octyl phthalate	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Diphenylamine	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Fluoranthene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Fluorene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Hexachlorobenzene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Hexachlorobutadiene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Hexachlorocyclopentadiene	ND	6400		µg/Kg	2	2/12/2015 4:19:21 PM
Hexachloroethane	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Indeno(1,2,3-cd)pyrene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Isophorone	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Naphthalene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Nitrobenzene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
N-Nitrosodimethylamine	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
N-Nitrosodi-n-propylamine	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Pentachlorophenol	ND	9500		µg/Kg	2	2/12/2015 4:19:21 PM
Phenanthrene	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM
Phenol	ND	1900		µg/Kg	2	2/12/2015 4:19:21 PM
Pyrene	ND	1300		µg/Kg	2	2/12/2015 4:19:21 PM
Pyridine	ND	3200		µg/Kg	2	2/12/2015 4:19:21 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	DF	Dilution Factor	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: VZ ii Technologies
 Lab Order: 1501009
 Client Sample ID TC/1550D-1501211150-CD4104
 Lab ID: 1501009-001

Date: 04-Mar-15
 Project:
 Collection Date: 1/21/2015 11:50:00 AM
 Date Received: 1/21/2015
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORG. COMP. BY GC/MS		SW8270C		Analyst: AF		
Surr: 2,4,6-Tribromophenol	39.5	48.6-149	S	%REC	2	2/12/2015 4:19:21 PM
Surr: 2-Fluorobiphenyl	183	59.3-137	S	%REC	2	2/12/2015 4:19:21 PM
Surr: 2-Fluorophenol	46.1	40.3-167		%REC	2	2/12/2015 4:19:21 PM
Surr: Nitrobenzene-d5	156	29.7-175		%REC	2	2/12/2015 4:19:21 PM
Surr: Phenol-d5	116	43.9-154		%REC	2	2/12/2015 4:19:21 PM
Surr: Terphenyl-d14	158	56.4-147	MID S	%REC	2	2/12/2015 4:19:21 PM

NOTES:

MID = Analyte(s) manually identified due to matrix interference.

Surrogate 2,4,6-Tribromophenol is outside the laboratory control limits, biased low.

Surrogates 2-Fluorobiphenyl & Terphenyl-d14 are outside the laboratory control limits, biased high.

VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B		Analyst: IR		
1,1,1,2-Tetrachloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1,1-Trichloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1,2,2-Tetrachloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1,2-Trichloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1-Dichloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1-Dichloroethene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,1-Dichloropropene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2,3-Trichlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2,3-Trichloropropane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2,4-Trichlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2,4-Trimethylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2-Dibromo-3-chloropropane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2-Dibromoethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2-Dichlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2-Dichloroethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,2-Dichloropropane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,3,5-Trimethylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,3-Dichlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,3-Dichloropropane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
1,4-Dichlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
2,2-Dichloropropane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
2-Butanone	ND	20000		µg/Kg	2000	1/30/2015 1:32:00 PM
2-Chlorotoluene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
2-Hexanone	ND	20000		µg/Kg	2000	1/30/2015 1:32:00 PM
4-Chlorotoluene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
4-Isopropyltoluene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
4-Methyl-2-pentanone	ND	20000		µg/Kg	2000	1/30/2015 1:32:00 PM
Acetone	ND	20000		µg/Kg	2000	1/30/2015 1:32:00 PM
Benzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Bromobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Bromochloromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	DF	Dilution Factor	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: VZ ii Technologies
 Lab Order: 1501009
 Client Sample ID TC/1550D-1501211150-CD4104
 Lab ID: 1501009-001

Date: 04-Mar-15
 Project:
 Collection Date: 1/21/2015 11:50:00 AM
 Date Received: 1/21/2015
 Matrix: LIQUID

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B	Analyst: IR	
Bromodichloromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Bromoform	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Carbon tetrachloride	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Chlorobenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Chloroform	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Chloromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
cis-1,2-Dichloroethene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
cis-1,3-Dichloropropene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Dibromochloromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Dibromomethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Dichlorodifluoromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Ethylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Hexachlorobutadiene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Isopropylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
m,p-Xylene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Methylene chloride	ND	20000		µg/Kg	2000	1/30/2015 1:32:00 PM
Naphthalene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
n-Butylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
n-Propylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
o-Xylene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
sec-Butylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Styrene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
tert-Butylbenzene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Tetrachloroethene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Toluene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
trans-1,2-Dichloroethene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
trans-1,3-Dichloropropene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Trichloroethene	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Trichlorofluoromethane	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Vinyl chloride	ND	4000		µg/Kg	2000	1/30/2015 1:32:00 PM
Xylenes, Total	ND	0		µg/Kg	2000	1/30/2015 1:32:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	2000	1/30/2015 1:32:00 PM
Surr: Dibromofluoromethane	101	70-130		%REC	2000	1/30/2015 1:32:00 PM
Surr: Toluene-d8	102	70-130		%REC	2000	1/30/2015 1:32:00 PM

LABORATORY HYDROGEN ION (PH) SW9040B (E150.1) Analyst: EAG
 Hydrogen Ion (pH) 10.44 0 pH Units 1 1/22/2015

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	DF	Dilution Factor	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order 1607F73
Date Reported: 8/30/2016

Client Sample ID: MPWWTP-ETCom-0716
 CLIENT: North Wind Services
 Project: Wastewater (20033.011)
 Lab ID: 1607F73-001
 Collection Date: 7/28/2016 9:45:00 AM
 Received Date: 7/29/2016 9:00:00 AM
 Matrix: AQUEOUS

Analyses	DF	Date Analyzed	Batch ID
EPA METHOD 7470: MERCURY			
Mercury	1	8/3/2016 4:37:13 PM	26742
EPA 8010B: TOTAL RECOVERABLE METALS			
Asenic	1	8/3/2016 11:02:37 AM	26744
Barium	1	8/3/2016 11:02:37 AM	26744
Cadmium	1	8/3/2016 11:02:37 AM	26744
Chromium	1	8/3/2016 11:02:37 AM	26744
Lead	1	8/3/2016 11:02:37 AM	26744
Selenium	1	8/3/2016 11:02:37 AM	26744
Silver	1	8/3/2016 11:02:37 AM	26744
EPA METHOD 8270C: SEMIVOLATILES			
Acenaphthene	1	8/4/2016 4:47:18 PM	26762
Acenaphthylene	1	8/4/2016 4:47:18 PM	26762
Aniline	1	8/4/2016 4:47:18 PM	26762
Anthracene	1	8/4/2016 4:47:18 PM	26762
Azobenzene	1	8/4/2016 4:47:18 PM	26762
Benzo(a)anthracene	1	8/4/2016 4:47:18 PM	26762
Benzo(a)pyrene	1	8/4/2016 4:47:18 PM	26762
Benzo(b)fluoranthene	1	8/4/2016 4:47:18 PM	26762
Benzo(g,h,i)perylene	1	8/4/2016 4:47:18 PM	26762
Benzo(k)fluoranthene	1	8/4/2016 4:47:18 PM	26762
Benzoic acid	1	8/4/2016 4:47:18 PM	26762
Benzyl alcohol	1	8/4/2016 4:47:18 PM	26762
Bis(2-chloroethoxy)methane	1	8/4/2016 4:47:18 PM	26762
Bis(2-chloroethyl)ether	1	8/4/2016 4:47:18 PM	26762
Bis(2-chloropropyl)ether	1	8/4/2016 4:47:18 PM	26762
Bis(2-ethylhexyl)phthalate	1	8/4/2016 4:47:18 PM	26762
4-Bromophenyl phenyl ether	1	8/4/2016 4:47:18 PM	26762
Bis(4-bromophenyl) ether	1	8/4/2016 4:47:18 PM	26762
Bis(4-bromophenyl) phthalate	1	8/4/2016 4:47:18 PM	26762
Carbazole	1	8/4/2016 4:47:18 PM	26762
4-Chloro-3-methylphenol	1	8/4/2016 4:47:18 PM	26762
4-Chloroaniline	1	8/4/2016 4:47:18 PM	26762
2-Chloronaphthalene	1	8/4/2016 4:47:18 PM	26762
2-Chlorophenol	1	8/4/2016 4:47:18 PM	26762
4-Chlorophenyl phenyl ether	1	8/4/2016 4:47:18 PM	26762
Chrysene	1	8/4/2016 4:47:18 PM	26762
Di-n-butyl phthalate	1	8/4/2016 4:47:18 PM	26762
Di-n-octyl phthalate	1	8/4/2016 4:47:18 PM	26762

to refer to the OC Summary report and sample login checklist for flagged OC data and preservation information.

Qualifiers:	B	E	J	P	RL
• Value exceeds Maximum Contaminant Level	Analyte detected in the associated Method Blank	Value above quantitation range	Analyte detected below quantitation limits	Sample pH Not In Range	Reporting Detection Limit
D Sample Diluted Due to Matrix					
H Holding times for preparation or analysis exceeded					
ND Not Detected at the Reporting Limit					
R RPD outside accepted recovery limits					
S Recovery outside of range due to dilution or matrix					
W Sample container temperature is out of limit as specified					

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1607F73
Date Reported: 8/30/2016

Client Sample ID: MPVWVWTP-ENC-com-0716
 CLIENT: North Wind Services
 Collection Date: 7/28/2016 9:45:00 AM
 Project: Wastewater (20033.011)
 Lab ID: 1607F73-001
 Matrix: AQUEOUS
 Received Date: 7/29/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Analyst	DAM	Batch ID
EPA METHOD 8270C: SEMIVOLATILES										
Dibenzodioxin	ND	2.5	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
3,3'-Dichlorobenzidine	2.8	2.4	10	J	µg/L	1	8/4/2016 4:47:18 PM		26762	
Dibutyl phthalate	ND	2.7	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Dimethyl phthalate	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	8/4/2016 4:47:18 PM		26762	
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
4,6-Dichloro-2-methylphenol	ND	1.8	20		µg/L	1	8/4/2016 4:47:18 PM		26762	
2,4-Dinitrophenol	4.8	2.8	20	J	µg/L	1	8/4/2016 4:47:18 PM		26762	
2,4-Dinitrofluorene	ND	3.1	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2,4-Dinitrofluorene	ND	2.7	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Fluoranthene	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Fluorene	ND	2.7	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Hexachlorobenzene	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Hexachlorobutadiene	ND	2.2	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Hexachloroethane	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Indene (1,2,3-cyclopentene)	ND	3.0	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Isophorone	ND	2.8	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
1-Methylcyclohexene	ND	2.9	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2-Methylcyclohexene	ND	2.5	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2-Methylphenol	ND	2.3	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
3,4-Dimethylphenol	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
N-Nitrosodipropylamine	ND	2.2	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
N-Nitrosodimethylamine	ND	2.3	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
N-Nitrosodiphenylamine	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Naphthalene	ND	2.8	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2-Nitroaniline	ND	2.9	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
3-Nitroaniline	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
4-Nitroaniline	ND	2.8	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Nitrobenzene	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
2-Nitrophenol	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Pentachlorophenol	ND	2.3	20		µg/L	1	8/4/2016 4:47:18 PM		26762	
Phenanthrene	ND	2.8	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Phenol	ND	2.0	10		µg/L	1	8/4/2016 4:47:18 PM		26762	
Purene	ND	3.1	10		µg/L	1	8/4/2016 4:47:18 PM		26762	

refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
•	Value exceeds Maximum Contaminant Level.		
D	Sample Diluted Due to Matrix		
H	Holding times for preparation or analysis exceeded		
ND	Not Detected at the Reporting Limit		
R	RPT outside detection recovery limits		
S	% Recovery outside of range due to dilution or matrix		
W	Sample container temperature is out of limit as specified		
		RL	Reporting Detection Limit
		P	Sample pH Not in Range
		J	Analyte detected below quantitation limits
		E	Value above quantitation range
		B	Analyte detected in the associated Method Blank

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Hall Environmental Analysis Laboratory, Inc.									
CLIENT: North Wind Services		Client Sample ID: MPWWTP-ERC-0716							
Project: Wastewater (20033.011)		Collection Date: 7/28/2016 9:45:00 AM							
Lab ID: 1607F73-001		Matrix: AQUEOUS Received Date: 7/29/2016 9:00:00 AM							
Analytes	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID	
EPA METHOD 8270C: SEMIVOLATILES									
Pyridine	ND	2.2	10		µg/L	1	8/20/2016 4:47:18 PM	26762	Analyst: DAM
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	8/20/2016 4:47:18 PM	26762	
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	8/20/2016 4:47:18 PM	26762	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	8/20/2016 4:47:18 PM	26762	
Surr: 2-Fluorophenol	28.6	0	15-123		%Rec	1	8/20/2016 4:47:18 PM	26762	
Surr: Phenol-d5	23.3	0	4.13-124		%Rec	1	8/20/2016 4:47:18 PM	26762	
Surr: 2,4,6-Trichlorophenol	53.8	0	18.4-134		%Rec	1	8/20/2016 4:47:18 PM	26762	
Surr: Nitrobenzene-d5	58.6	0	28.8-134		%Rec	1	8/20/2016 4:47:18 PM	26762	
Surr: 2-Fluorobiphenyl	58.9	0	35.9-125		%Rec	1	8/20/2016 4:47:18 PM	26762	
Surr: 4-Terphenyl-d14	24.8	0	15-146		%Rec	1	8/20/2016 4:47:18 PM	26762	
EPA METHOD 8260B: VOLATILES									
Benzene	0.44	0.096	1.0	J	µg/L	1	8/20/2016 1:16:00 PM	R36332	Analyst: BCN
Toluene	0.23	0.12	1.0	J	µg/L	1	8/20/2016 1:16:00 PM	R36332	
Ethylbenzene	ND	0.11	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
1,2-Dibromethane (EDB)	ND	0.11	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Naphthalene	0.15	0.093	2.0	J	µg/L	1	8/20/2016 1:16:00 PM	R36332	
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Acetone	5.2	4.9	10	J	µg/L	1	8/20/2016 1:16:00 PM	R36332	
Bromobenzene	ND	0.098	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Bromodichloromethane	ND	0.14	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Bromodifluoromethane	ND	0.10	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Bromomethane	ND	0.78	3.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Carbon disulfide	3.4	0.74	10	J	µg/L	1	8/20/2016 1:16:00 PM	R36332	
Carbon Tetrachloride	ND	0.80	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Chlorobenzene	ND	0.11	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Chloroethane	ND	0.19	2.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Chloroform	ND	0.089	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Chloromethane	ND	0.21	3.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
dis-1,2-DCE	ND	0.12	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
dis-1,3-Dichloropropane	ND	0.11	1.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	8/20/2016 1:16:00 PM	R36332	
Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.									
Qualifiers:	* Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank						
D	Sample Diluted Due to Matrix	E	Value above quantitation range						
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits						
ND	Not Detected at the Reporting Limit	P	Sample pH Not in Range						
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit						
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified						

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed

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Hall Environmental Analysis Laboratory, Inc.									
CLIENT: North Wind Services Project: Wastewater (20033.011) Lab ID: 1607F73-001		Client Sample ID: MPWWTP-ERCCom-0716 Collection Date: 7/28/2016 9:45:00 AM Received Date: 7/29/2016 9:00:00 AM							
Matrix: AQUEOUS		Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
Analyses									
EPA METHOD 8260B: VOLATILES									
Dibromochloromethane	ND	0.087	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Dibromomethane	ND	0.12	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,2-Dichlorobenzene	ND	0.40	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,3-Dichlorobenzene	ND	0.14	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,4-Dichlorobenzene	ND	0.36	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Dichlorodifluoromethane	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1-Dichloroethane	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1-Dichloroethene	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,2-Dichloropropane	ND	0.16	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,3-Dichloropropane	ND	0.17	2.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
2,2-Dichloropropane	ND	0.13	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1-Dichloropropene	ND	0.20	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Heachlorobutadiene	ND	0.84	10			µg/L	1	8/20/2016 1:16:00 PM	R36332
2-Heptanone	ND	0.10	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Isopropylbenzene	ND	0.14	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
4-Isopropyltoluene	ND	0.43	10			µg/L	1	8/20/2016 1:16:00 PM	R36332
4-Methyl-2-pentanone	ND	0.19	3.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Methylene Chloride	ND	0.16	3.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
n-Butylbenzene	ND	0.13	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
n-Propylbenzene	ND	0.12	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
sec-Butylbenzene	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Styrene	ND	0.12	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
ter-Butylbenzene	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	0.13	2.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Tetrachloroethene (PCE)	ND	0.45	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
trans-1,2-DCE	ND	0.10	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
trans-1,3-Dichloropropene	ND	0.11	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,2,3-Trichlorobenzene	ND	0.13	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,2,4-Trichlorobenzene	ND	0.091	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1,1-Trichloroethane	ND	0.13	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,1,2-Trichloroethane	ND	0.18	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Trichloroethene (TCE)	ND	0.20	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Trichlorofluoromethane	ND	0.20	2.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
1,2,3-Trichloropropene	ND	0.20	1.0			µg/L	1	8/20/2016 1:16:00 PM	R36332
Vinyl chloride	ND	0.37	1.5			µg/L	1	8/20/2016 1:16:00 PM	R36332
Xylenes, Total	105	0	70-130			%Rec	1	8/20/2016 1:16:00 PM	R36332
Surr: 1,2-Dichloroethane-d4	99.8	0	70-130			%Rec	1	8/20/2016 1:16:00 PM	R36332
Surr: 4-Bromofluorobenzene									
Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.									
Qualifiers:	* Value exceeds Maximum Contaminant Level. B Analyte detected in the associated Method Blank								
D Sample Diluted Due to Matrix	E Value above quantitation range								
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits								
ND Not Detected at the Reporting Limit	P Sample pH Not in Range								
R RPD outside accepted recovery limits	RL Reporting Detection Limit								
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified								

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Analytical Report
Lab Order 1607F73
Date Reported: 8/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: North Wind Services
Project: Wastewater (20033.011)
Lab ID: 1607F73-001

Client Sample ID: MPWWTP-ETCom-0716
Collection Date: 7/28/2016 9:45:00 AM
Received Date: 7/29/2016 9:00:00 AM

Matrix: AQUEOUS

Analytes	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES								
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	8/2/2016 1:16:00 PM	R36332
Surr: Toluene-d8	98.9	0	70-130		%Rec	1	8/2/2016 1:16:00 PM	R36332
SM4500-H+8: PH	7.22	0.100	1.88	H	pH units	1	8/2/2016 3:02:29 PM	R36175
pH								

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		• Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix		E Value above quantitation range
H	Holding times for preparation or analysis exceeded		J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit		P Sample pH Not in Range
R	RPD outside accepted recovery limits		RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		W Sample container temperature is out of limit as specified

HAZARDOUS WASTE PROFILE SHEET

Part 1

•Generator•

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Public Works Directorate
 WWTP: N/A
 Bldg. Number: N/A
 SAP ID: N/A
 DODAAC: WM0M58

•Waste Profile•

PW 17 271 03

Replaces: PW 17 108 01

Contact: Kelly Norwood
 Phone: 575-678-7082

1. Name of Waste: PPE- MP WWTP effluent Sampling
2. Clin: NR01
3. Generating Process: Effluent sampling
4. Projected Volume: 5 Lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

•RCRA Characteristics•

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A
☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

•Chemical/Material Composition•

Component	Concentration/Range
Barium	0.039 - 0.052 mg/L
2-Butanone	0.012 mg/L
Benzyl Alcohol	0.0014 mg/L
Bis(2-ethylhexyl) phthalate	0.00052 mg/L
Phenol	0.0030 mg/L

•Shipping Information•

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

•Basis for Information•

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See Hall Environmental Analysis Lab ID: 1701B37-001, 1707E54-004, and 1607F73-001.

•Generator Certification•

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Digitally signed by HARRISON.JON.EDWARD.140859582
 DN: cn=US, o=U.S. Government, ou=DoD, ou=PR, ou=USA,
 email=HARRISON.JON.EDWARD.140859582
 Date: 2017.09.28 17:19:42 -0500

Date
 28-Sep-17

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707ES4
Date Reported: 8/22/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707ES4-004Client Sample ID: MPWWTP-ERC-0717WC
Collection Date: 7/27/2017 12:00:00 PM
Received Date: 7/28/2017 9:00:00 AM
Matrix: AQUEOUS

Analytes	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 747B: MERCURY						
Analyst: MED						
Mercury	ND	0.00020		mg/L	1	8/2/2017 11:15:47 AM
EPA 8010B: TOTAL RECOVERABLE METALS						
Analyst: ELS						
Arsenic	ND	0.020		mg/L	1	8/12/2017 10:53:52 AM
Barium	0.041	0.020		mg/L	1	8/2/2017 1:41:27 PM
Cadmium	ND	0.0020		mg/L	1	8/2/2017 1:41:27 PM
Chromium	ND	0.0060		mg/L	1	8/2/2017 1:41:27 PM
Lead	ND	0.0050		mg/L	1	8/2/2017 10:53:52 AM
Selenium	ND	0.050		mg/L	1	8/2/2017 1:41:27 PM
Silver	ND	0.0050		mg/L	1	8/2/2017 1:41:27 PM
EPA METHOD 8260B: VOLATILES						
Analyst: DJF						
Benzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Toluene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Ethylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Naphthalene	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/1/2017 5:18:22 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/1/2017 5:18:22 AM
Acetone	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Bromobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Bromodibromomethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Bromomethane	ND	3.0		µg/L	1	8/1/2017 5:18:22 AM
2-Butanone	ND	10		µg/L	1	8/1/2017 5:18:22 AM
Carbon disulfide	ND	10		µg/L	1	8/1/2017 5:18:22 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Chlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Chloroethane	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM
Chloroform	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Chloromethane	ND	3.0		µg/L	1	8/1/2017 5:18:22 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707ES4
Date Reported: 8/22/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707ES4-004Client Sample ID: MPWWTP-ERC-0717WC
Collection Date: 7/27/2017 12:00:00 PM
Received Date: 7/28/2017 9:00:00 AM
Matrix: AQUEOUS

Analytes	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						
Analyst: DJF						
Dibromochloromethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Dibromomethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM
1,1-Dichloropropane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
2-Hexanone	ND	10		µg/L	1	8/1/2017 5:18:22 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/1/2017 5:18:22 AM
Methylene Chloride	ND	3.0		µg/L	1	8/1/2017 5:18:22 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/1/2017 5:18:22 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Styrene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Trichloroethane (TCE)	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/1/2017 5:18:22 AM
Vinyl chloride	ND	1.0		µg/L	1	8/1/2017 5:18:22 AM
Xylenes, Total	ND	1.5		µg/L	1	8/1/2017 5:18:22 AM
Sum: 1,2-Dichloroethane-d4	102	70-130	%Rec		1	8/1/2017 5:18:22 AM
Sum: 4-Bromodifluorobenzene	82.9	70-130	%Rec		1	8/1/2017 5:18:22 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707ES4
Date Reported: 9/19/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707ES4-004Client Sample ID: MPWWTP-ERC-0717WC
Collection Date: 7/27/2017 12:00:00 PM
Received Date: 7/28/2017 9:00:00 AM
Matrix: AQUEOUS

Analytes	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						
Analyst: DJF						
Sum: Dibromofluoromethane	102	70-130	%Rec		1	8/1/2017 5:18:22 AM
Sum: Toluene-d8	99.8	70-130	%Rec		1	8/1/2017 5:18:22 AM
EPA 8270D: SEMIVOLATILES						
Analyst: SUB						
1,2,4-Trichlorobenzene	ND	0.50		µg/L	1	8/9/2017
1,2-Dichlorobenzene	ND	0.50		µg/L	1	8/9/2017
1,2-Diphenylhydrazine	ND	0.50		µg/L	1	8/9/2017
1,3-Dichlorobenzene	ND	0.50		µg/L	1	8/9/2017
1,4-Dichlorobenzene	ND	0.50		µg/L	1	8/9/2017
1-Methylnaphthalene	ND	0.50		µg/L	1	8/9/2017
2,3,4,6-Tetrachlorophenol	ND	0.50		µg/L	1	8/9/2017
2,3,5-Tetrachlorophenol	ND	0.50		µg/L	1	8/9/2017
2,4,5-Trichlorophenol	ND	0.50		µg/L	1	8/9/2017
2,4,6-Trichlorophenol	ND	0.50		µg/L	1	8/9/2017
2,4-Dichlorophenol	ND	0.50		µg/L	1	8/9/2017
2,4-Dimethylphenol	ND	0.50		µg/L	1	8/9/2017
2,4-Dinitrophenol	ND	0.50		µg/L	1	8/9/2017
2,4-Dinitrotoluene	ND	0.50		µg/L	1	8/9/2017
2-Chloronaphthalene	ND	0.50		µg/L	1	8/9/2017
2-Chlorophenol	ND	0.50		µg/L	1	8/9/2017
2-Methylnaphthalene	ND	0.50		µg/L	1	8/9/2017
2-Methylphenol	ND	0.50		µg/L	1	8/9/2017
2-Nitroaniline	ND	0.50		µg/L	1	8/9/2017
2-Nitrophenol	ND	0.50		µg/L	1	8/9/2017
3,3'-Dichlorobenzidine	ND	0.50		µg/L	1	8/9/2017
3,4,4-Methylphenol	ND	0.50		µg/L	1	8/9/2017
3-Nitroaniline	ND	0.50		µg/L	1	8/9/2017
4,6-Dinitro-2-methylphenol	ND	0.50		µg/L	1	8/9/2017
4-Bromophenyl phenyl ether	ND	0.50		µg/L	1	8/9/2017
4-Chloro-3-methylphenol	ND	0.50		µg/L	1	8/9/2017
4-Chloroaniline	ND	0.50		µg/L	1	8/9/2017
4-Chlorophenyl phenyl ether	ND	0.50		µg/L	1	8/9/2017
4-Nitroaniline	ND	0.50		µg/L	1	8/9/2017
4-Nitrophenol	ND	0.50		µg/L	1	8/9/2017
Acenaphthene	ND	0.50		µg/L	1	8/9/2017
Acenaphthylene	ND	0.50		µg/L	1	8/9/2017
Aniline	ND	0.50		µg/L	1	8/9/2017
Anthracene	ND	0.50		µg/L	1	8/9/2017
Benidine	ND	0.50		µg/L	1	8/9/2017
Benzotriazole	ND	0.50		µg/L	1	8/9/2017

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707ES4
Date Reported: 9/19/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707ES4-004Client Sample ID: MPWWTP-ERC-0717WC
Collection Date: 7/27/2017 12:00:00 PM
Received Date: 7/28/2017 9:00:00 AM
Matrix: AQUEOUS

Analytes	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 8270D: SEMIVOLATILES						
Analyst: SUB						
Benz(a)anthracene	ND	0.50		µg/L	1	8/9/2017
Benz(a)pyrene	ND	0.50		µg/L	1	8/9/2017
Benz(b)fluoranthene	ND	0.50		µg/L	1	8/9/2017
Benzofluoranthene	ND	0.50		µg/L	1	8/9/2017
Benzyl alcohol	1.4	0.50		µg/L	1	8/9/2017
Bis(2-chloroethoxy)methane	ND	0.50		µg/L	1	8/9/2017
Bis(2-chloroethoxy)ether	ND	0.50		µg/L	1	8/9/2017
Bis(2-chloroisopropoxy)ether	ND	0.50		µg/L	1	8/9/2017
Bis(2-ethoxyethyl)phthalate	6.52	0.50	B	µg/L	1	8/9/2017
Butyl benzyl phthalate	ND	0.50		µg/L	1	8/9/2017
Carbazole	ND	0.50		µg/L	1	8/9/2017
Chrysene	ND	0.50		µg/L	1	8/9/2017
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	8/9/2017
Dibenzofuran	ND	0.50		µg/L	1	8/9/2017
Diallyl phthalate	ND	0.50		µg/L	1	8/9/2017
Dimethyl phthalate	ND	0.50		µg/L	1	8/9/2017
Di-n-butyl phthalate	ND	0.50		µg/L	1	8/9/2017
Di-n-octyl phthalate	ND	0.50		µg/L	1	8/9/2017
Fluoranthene	ND	0.50		µg/L	1	8/9/2017
Fluorene	ND	0.50		µg/L	1	8/9/2017
Hexachlorobenzene	ND	0.50		µg/L	1	8/9/2017
Hexachlorobutadiene	ND	0.50		µg/L	1	8/9/2017
Hexachlorocyclopentadiene	ND	0.50		µg/L	1	8/9/

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1707E54
Date Reported: 9/19/2017CLIENT: North Wind Services
Project: Wastewater
Lab ID: 1707E54-004Client Sample ID: MPWWTP-ETCom-0717-WC
Collection Date: 7/27/2017 12:00:00 PM
Received Date: 7/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270D: SEMIVOLATILES						
Analyst: SUB						
Sur: Nitrobenzene-d5	102	56-120	%Rec	1	8/9/2017	
Sur: Phenol-d5	81.4	52-115	%Rec	1	8/9/2017	
Sur: Terphenyl-d14	111	22-133	%Rec	1	8/9/2017	
Analyst: JRR						
SM4500-H+B: PH						
pH	7.47		H	pH units	1	7/31/2017 1:40:04 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	A Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
PQL	Practical Quantitation Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1701B37
Date Reported: 2/8/2017CLIENT: North Wind Services
Project: Wastewater (20033 014)
Lab ID: 1701B37-001Client Sample ID: MPWWTP-ETCom-0117-WC
Collection Date: 1/26/2017 9:50:00 AM
Received Date: 1/27/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						
Mercury	ND	0.0020		ug/L	1	1/30/2017 3:13:18 PM
EPA 8010B: TOTAL RECOVERABLE METALS						
Analyst: pmf						
Arsenic	ND	0.020		mg/L	1	1/30/2017 11:35:57 AM
Barium	0.039	0.020		mg/L	1	1/30/2017 11:35:57 AM
Cadmium	ND	0.0020		mg/L	1	1/30/2017 11:35:57 AM
Chromium	ND	0.0060		mg/L	1	1/30/2017 11:35:57 AM
Lead	ND	0.0050		mg/L	1	1/30/2017 12:43:34 PM
Selenium	ND	0.050		mg/L	1	1/30/2017 11:35:57 AM
Silver	ND	0.0050		mg/L	1	1/30/2017 11:35:57 AM
EPA METHOD 8270C: SEMIVOLATILES						
Analyst: JDC						
Acephenanthrene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Acenaphthylene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Acilene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Anthracene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Azobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benz(a)anthracene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benz(a)pyrene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benz(b)fluoranthene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benz(g,h,i)perylene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benz(k)fluoranthene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Benzoic acid	ND	20		ug/L	1	2/2/2017 7:12:22 PM
Benzyl alcohol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Bis(2-chloroethoxy)methane	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Bis(2-chloroethoxy)ether	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Bis(2-chloroisopropoxy)ether	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Bis(2-ethoxyethoxy)phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Bromophenyl phenyl ether	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Butyl benzyl phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Carbazole	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Chloro-3-methylphenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Chloroaniline	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Chloronaphthalene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Chlorophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Chlorophenyl phenyl ether	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Chrysene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Dio-n-butyl phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Dio-octyl phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Dibenz(h)anthracene	ND	10		ug/L	1	2/2/2017 7:12:22 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	A Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1701B37
Date Reported: 2/8/2017CLIENT: North Wind Services
Project: Wastewater (20033 014)
Lab ID: 1701B37-001Client Sample ID: MPWWTP-ETCom-0117-WC
Collection Date: 1/26/2017 9:50:00 AM
Received Date: 1/27/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						
Analyst: JDC						
Dibenzofuran	ND	10		ug/L	1	2/2/2017 7:12:22 PM
1,2-Dichlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
1,3-Dichlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
1,4-Dichlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
3,3'-Dichlorobenzidine	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Diallyl phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Dimethyl phthalate	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2,4-Dichlorophenol	ND	20		ug/L	1	2/2/2017 7:12:22 PM
2,4-Dichlorophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4,6-Dinitro-2-methylphenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4,6-Dinitrophenol	ND	20		ug/L	1	2/2/2017 7:12:22 PM
2,6-Dinitrotoluene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2,6-Dinitrotoluene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Fluoranthene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Fluorene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Hexachlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Hexachlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Hexachlorocyclopentadiene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Hexachloroethane	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Indene(1,2,3-cd)pyrene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Isophorone	ND	10		ug/L	1	2/2/2017 7:12:22 PM
1-Methylnaphthalene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Methylnaphthalene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Methylphenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
3,4-Methylphenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
N-Nitrosod-n-propylamine	ND	10		ug/L	1	2/2/2017 7:12:22 PM
N-Nitrosodimethylamine	ND	10		ug/L	1	2/2/2017 7:12:22 PM
N-Nitrosodethylamine	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Naphthalene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Nitroaniline	ND	10		ug/L	1	2/2/2017 7:12:22 PM
3-Nitroaniline	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Nitroaniline	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Nitrobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2-Nitrophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
4-Nitrophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Pentachlorophenol	ND	20		ug/L	1	2/2/2017 7:12:22 PM
Phenanthrene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Phenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Pyrene	ND	10		ug/L	1	2/2/2017 7:12:22 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	A Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1701B37
Date Reported: 2/8/2017CLIENT: North Wind Services
Project: Wastewater (20033 014)
Lab ID: 1701B37-001Client Sample ID: MPWWTP-ETCom-0117-WC
Collection Date: 1/26/2017 9:50:00 AM
Received Date: 1/27/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						
Analyst: JDC						
Pyridine	ND	10		ug/L	1	2/2/2017 7:12:22 PM
1,2,4-Trichlorobenzene	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2,4,5-Trichlorophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
2,4,6-Trichlorophenol	ND	10		ug/L	1	2/2/2017 7:12:22 PM
Sur: 2-Fluorophenol	28.8	15-48.1	%Rec	1	2/2/2017 7:12:22 PM	
Sur: Phenol-d5	25.8	15-40.7	%Rec	1	2/2/2017 7:12:22 PM	
Sur: 2,4,6-Trifluorophenol	50.4	15-112	%Rec	1	2/2/2017 7:12:22 PM	
Sur: Nitrobenzene-d5	78.9	27.2-80.7	%Rec	1	2/2/2017 7:12:22 PM	
Sur: 2-Fluorobiphenyl	64.5	23.3-65.6	%Rec	1	2/2/2017 7:12:22 PM	
Sur: 4-Terphenyl-d14	33.4	27.6-107	%Rec	1	2/2/2017 7:12:22 PM	
EPA METHOD 8260B: VOLATILES						
Analyst: AG						
Benzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Toluene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Ethylbenzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
1,2,4-Trimethylbenzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
1,3,5-Trimethylbenzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
1,2-Dichloroethane (EDB)	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Naphthalene	ND	2.0		ug/L	1	1/27/2017 4:49:47 PM
1-Methylnaphthalene	ND	4.0		ug/L	1	1/27/2017 4:49:47 PM
2-Methylnaphthalene	ND	4.0		ug/L	1	1/27/2017 4:49:47 PM
Acetone	ND	10		ug/L	1	1/27/2017 4:49:47 PM
Bromobenzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Bromodichloromethane	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Bromofarm	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Bromomethane	ND	3.0		ug/L	1	1/27/2017 4:49:47 PM
2-Butanone	12	10		ug/L	1	1/27/2017 4:49:47 PM
Carbon disulfide	ND	10		ug/L	1	1/27/2017 4:49:47 PM
Carbon Tetrachloride	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Chlorobenzene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Chloroethane	ND	2.0		ug/L	1	1/27/2017 4:49:47 PM
Chloroform	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
Chloromethane	ND	3.0		ug/L	1	1/27/2017 4:49:47 PM
2-Chlorotoluene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
4-Chlorotoluene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
dis-1,2-DCI	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
dis-1,3-Dichloropropene	ND	1.0		ug/L	1	1/27/2017 4:49:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		ug/L	1	1/27/2017 4:49:47 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	A Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607F73-001
Client Sample ID: MPWWTP-ETC-0716
Collection Date: 7/28/2016 9:45:00 AM
Received Date: 7/29/2016 9:00:00 AM
Matrix: AQUEOUS

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMI-VOLATILES								
Analyst: DAM								
Pyridine	ND	2.2	10		µg/L	1	8/4/2016 4:47:18 PM	26782
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	8/4/2016 4:47:18 PM	26782
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	8/4/2016 4:47:18 PM	26782
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	8/4/2016 4:47:18 PM	26782
Sur: 2-Fluorophenol	28.8	0	15-123	%Rec		1	8/4/2016 4:47:18 PM	26782
Sur: Phenol-d5	23.3	0	4.13-124	%Rec		1	8/4/2016 4:47:18 PM	26782
Sur: 2,4,6-Trichlorophenol	53.6	0	18.4-134	%Rec		1	8/4/2016 4:47:18 PM	26782
Sur: Methylbenzene-d5	56.8	0	28.6-134	%Rec		1	8/4/2016 4:47:18 PM	26782
Sur: 2-Fluorobiphenyl	58.9	0	35.9-125	%Rec		1	8/4/2016 4:47:18 PM	26782
Sur: 4-Terphenyl-d14	24.8	0	15-146	%Rec		1	8/4/2016 4:47:18 PM	26782
EPA METHOD 8260B: VOLATILES								
Analyst: BGN								
Benzene	0.44	0.096	1.0	J	µg/L	1	8/9/2016 1:16:00 PM	R36332
Toluene	0.23	0.12	1.0	J	µg/L	1	8/9/2016 1:16:00 PM	R36332
Ethylbenzene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Naphthalene	0.15	0.093	2.0	J	µg/L	1	8/9/2016 1:16:00 PM	R36332
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
2-Methylnaphthalene	ND	0.18	4.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Acetone	5.2	4.9	10	J	µg/L	1	8/9/2016 1:16:00 PM	R36332
Bromobenzene	ND	0.096	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Bromodichloromethane	ND	0.14	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Bromofarm	ND	0.10	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Bromomethane	ND	0.78	3.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
2-Butanone	3.4	0.74	10	J	µg/L	1	8/9/2016 1:16:00 PM	R36332
Carbon disulfide	ND	0.60	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Chlorobenzene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Chloroethane	ND	0.19	2.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Chloroform	ND	0.588	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Chloromethane	ND	0.21	3.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
cis-1,2-DCCE	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	8/9/2016 1:16:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preservation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607F73-001
Client Sample ID: MPWWTP-ETC-0716
Collection Date: 7/28/2016 9:45:00 AM
Received Date: 7/29/2016 9:00:00 AM
Matrix: AQUEOUS

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES								
Analyst: BGN								
Dibromochloromethane	ND	0.087	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Dibromomethane	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Dichlorodifluoromethane	ND	0.38	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2-Dichloropropane	ND	0.18	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1-Dichloropropane	ND	0.13	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
2-Hexanone	ND	0.84	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Isopropylbenzene	ND	0.19	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
4-Isopropylbenzene	ND	0.14	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
4-Methyl-2-pentanone	ND	0.43	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Methylene Chloride	ND	0.19	3.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
n-Butylbenzene	ND	0.16	3.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
n-Propylbenzene	ND	0.13	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Styrene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Tetrachloroethane (PCE)	ND	0.15	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
trans-1,2-DCCE	ND	0.40	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Trichloroethane (TCE)	ND	0.18	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Vinyl chloride	ND	0.20	1.0		µg/L	1	8/9/2016 1:16:00 PM	R36332
Xylenes, Total	ND	0.37	1.5		µg/L	1	8/9/2016 1:16:00 PM	R36332
Sur: 1,2-Dichlorobenzene-d4	105	0	70-130	%Rec		1	8/9/2016 1:16:00 PM	R36332
Sur: 4-Bromofluorobenzene	99.8	0	70-130	%Rec		1	8/9/2016 1:16:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preservation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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CLIENT: North Wind Services
Project: Wastewater (20033 011)
Lab ID: 1607F73-001
Client Sample ID: MPWWTP-ETC-0716
Collection Date: 7/28/2016 9:45:00 AM
Received Date: 7/29/2016 9:00:00 AM
Matrix: AQUEOUS

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES								
Analyst: BGN								
Sur: Dibromofluoromethane	104	0	70-130	%Rec		1	8/9/2016 1:16:00 PM	R36332
Sur: Toluene-d8	99.8	0	70-130	%Rec		1	8/9/2016 1:16:00 PM	R36332
SM4500-H+B: PH								
pH	7.22	0.100	1.88	H	pH units	1	8/2/2016 9:02:29 PM	R36175

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preservation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not in Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Materiel Test Directorate
 Wash Rack
 Bldg. Number: 2780
 SAP ID: N7A
 DODAAC: WM0M58

●Waste Profile●

MT 18 030 01

Replaces: MT 13 128 06
 Contact: Allen Tyree
 Phone: 575-678-4773

1. Name of Waste: Liquid, Oily Water from MT/GTO Wash Rack Tank #1
2. Clin: FL15
3. Generating Process: Washrack Maintenance Operations
4. Projected Volume: >100 Lbs Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

●RCRA Characteristics●

Physical State:
☐ Solid ☒ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☐ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: > 180 °F

☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: 6.59

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☒ Toxicity Characteristics: D006, D008

☒ F- Listed Waste: F003

☐ P - Listed Waste:

☐ U - Listed Waste:

●Chemical/Material Composition●

Component	Concentration/Range
Arsenic	0.0432 - 0.155 mg/L
Barium	0.845 - 7.22 mg/L
Bis(2-ethylhexyl)phthalate	0.0514 mg/L
Cadmium	1.21 - 6.97 mg/L
Chromium	0.122 mg/L
Lead	0.672 - 5.65 mg/L
Selenium	0.205 mg/L
Acetone	2.690 mg/L
Total Petroleum Hydrocarbons	7.000 mg/L
Chloroform	0.00897 mg/L

●Shipping Information●

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
 Hazardous Waste Liquid n.o.s. (acetone, cadmium, lead)

Waste Codes: D006, D008, F003

Hazard Class: 9 UN or NA No.: NA3082 PG: III

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See attached WSMR LAB ID 1303003-003, Test America Lab Sample ID 280-39845-1, and Xenco Lab Sample ID 572924-003.

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Date
 30-Jan-18



Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMRSample Id: MT2780-1801081130-CD4687-4692
Lab Sample Id: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30

Analytical Method: pft by SM4506-II

Tech: MLC

Analyst: MLC

Seq Number: 3037816

% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
pH	12481-02-3	7.69		RU	01/09/18 17:52	K	1
Temperature	TEMP	21.3		Deg C	01/09/18 17:52	K	1

Analytical Method: Mercury by EPA 7470A

Tech: AIB

Analyst: ELW

Seq Number: 3038069

Prep Method: SW7470P

% Moisture:

Date Prep: 01/11/18 11:30

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	5439-97-6	<0.000200	0.000200	mg/L	01/11/18 10:08	U	1

Analytical Method: RCRA Metals by SW846-6010C

Tech: MLI

Analyst: DEP

Seq Number: 3038550

Prep Method: SW8010A

% Moisture:

Date Prep: 01/17/18 11:05

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Acetic	7440-39-2	0.0433	0.0400	mg/L	01/18/18 13:29		1
Borates	7440-39-3	7.22	0.0200	mg/L	01/18/18 00:07		1
Cadmium	7440-43-9	6.97	0.100	mg/L	01/18/18 15:34		5
Chromium	7440-47-3	<0.0200	0.0200	mg/L	01/18/18 00:07	U	1
Cobalt	7440-48-4	8.48	0.0300	mg/L	01/18/18 00:07		1
Selenium	7782-49-2	<0.0000	0.0000	mg/L	01/18/18 00:07		1
Silver	7440-22-4	<0.0000	0.0000	mg/L	01/18/18 00:07	U	1

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Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMRSample Id: MT2780-1801081130-CD4687-4692
Lab Sample Id: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30

Analytical Method: Flash Point (CC) SW-846 1910

Tech: DHE

Analyst: DHE

Seq Number: 3038295

% Moisture:

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Flash Point		>100		Deg F	01/13/18 14:10	U	1

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Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMRSample Id: MT2780-1801081130-CD4687-4692
Lab Sample Id: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30

Analytical Method: SVOAs by EPA 8270C

Tech: SOK

Analyst: WEW

Seq Number: 3038053

Prep Method: SW3510C

% Moisture:

Date Prep: 01/10/18 11:03

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,2,4-Trichlorobenzene	120-82-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
1,2-Dichlorobenzene	95-50-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
1,3-Dichlorobenzene	541-73-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
1,4-Dichlorobenzene	106-46-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,4-Dichlorophenol	95-95-4	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,6-Dichlorophenol	88-06-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,4-Dichlorophenol	129-43-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,4-Dimethylphenol	105-47-9	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,4-Dinitrophenol	91-26-5	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
2,4-Dinitrophenol	121-14-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2,6-Dinitrophenol	606-29-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2-Chloronaphthalene	91-58-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2-Chlorophenol	95-57-8	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2-Methyl-naphthalene	91-57-4	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2-methylphenol	95-48-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
2-Nitroaniline	88-74-4	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
2-Nitrophenol	88-75-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
3,4-Dimethylbenzal	15831-10-4	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
3,3-Dichlorobenzidine	91-84-1	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
3-Nitroaniline	99-09-2	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
4,6-Dinitro-2-methylphenol	534-32-1	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
4-Nitrophenyl-phenyl ether	101-53-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
4-chloro-3-methylphenol	99-50-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
4-Chlorophenol	106-47-4	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
4-Nitroaniline	106-61-4	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
4-Nitrophenol	100-02-7	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
Azobenzene	83-32-9	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Azobenzene	208-96-8	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Aniline (Phenylamine, Aminobenzene)	62-53-3	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
Aniline	120-12-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	56-23-5	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	50-32-8	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	205-99-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	191-24-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	297-08-9	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Benzene	83-85-0	<0.0411	0.0411	mg/L	01/11/18 19:57	U	1
Benzene	83-68-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
but(2-chloroethoxy) methane	111-91-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1

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Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMRSample Id: MT2780-1801081130-CD4687-4692
Lab Sample Id: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30

Analytical Method: SVOAs by EPA 8270C

Tech: SOK

Analyst: WEW

Seq Number: 3038053

Prep Method: SW3510C

% Moisture:

Date Prep: 01/10/18 11:03

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
but(2-chloroethoxy) ether	111-44-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
but(2-chloroethoxy) ether	35618-32-0	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
but(2-ethoxyethoxy) phthalate	117-81-7	0.8514	0.00735	mg/L	01/11/18 19:57	U	1
Chrysene	218-01-9	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Dibenzofuran	132-64-9	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Dibenzophthalene	84-66-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Dimethyl phthalate	131-11-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
D-n-butylphthalate	84-74-2	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
D-n-Octyl Phthalate	117-84-0	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Fluorene	256-41-0	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Fluoranthene	86-73-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Hexachlorobenzene	118-74-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Hexachlorobutadiene	87-48-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Hexachlorocyclopentadiene	77-47-4	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Hexachlorocyclopentadiene	67-72-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Indene(1,2,3-c,f)pyrene	193-39-5	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Isophthalene	78-59-1	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Naphthalene	91-20-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Nitrobenzene	98-95-3	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
N-Nitrosodimethylamine	621-64-7	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
N-Nitrosodiphenylamine	84-30-8	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Phenanthrene	85-01-8	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
Phenanthrene	85-01-8	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Phenol	108-95-2	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1
Pyrene	129-00-0	<0.00735	0.00735	mg/L	01/11/18 19:57	U	1
Pyridine	110-85-1	<0.0147	0.0147	mg/L	01/11/18 19:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
2-Fluorophenol	367-12-4	60	%	30-100	01/11/18 19:57	
Phenol-d5	13127-08-3	66	%	15-94	01/11/18 19:57	
Nitrobenzene-d5	4165-60-0	54	%	46-111	01/11/18 19:57	
2-Fluorobiphenyl	321-60-8	62	%	44-117	01/11/18 19:57	
2,4,6-Trichlorophenol	118-79-4	90	%	48-117	01/11/18 19:57	
Toluenesulfonate	1718-51-0	84	%	46-120	01/11/18 19:57	

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Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMR

Sample ID: NT2780-1801081130-CD4687-4692
Lab Sample ID: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30
Prep Method: SW5030C
Tech: JOL
Analyst: JOL
Seq Number: 3036673
Date Prep: 01/17/18 13:20
SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Bromobenzene	108-45-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Bromochloromethane	74-97-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Bromodichloromethane	75-27-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Bromofluoromethane	75-25-2	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Methyl bromide	74-83-9	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
n-Butylbenzene	104-51-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
sec-Butylbenzene	135-98-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
tert-Butylbenzene	91-06-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Carbon Tetrachloride	56-23-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Chlorobenzene	106-90-7	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Chloroethane	75-00-3	<0.0100	0.0100	mg/L	01/17/18 15:54	1	
Chloroform	67-66-3	0.00097	0.00500	mg/L	01/17/18 15:54	1	
Methyl Chloride	74-87-3	<0.0100	0.0100	mg/L	01/17/18 15:54	1	
2-Chlorotoluene	95-49-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
4-Chlorotoluene	106-43-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
p-Cymene (p-isopropyltoluene)	99-47-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Dichlorodimethylsilane	124-48-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2-Dichloro-3-Chloropropane	96-13-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2-Dichloroethane	106-93-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Methylcyclohexane	74-95-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2-Dichlorobenzene	95-50-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,3-Dichlorobenzene	541-73-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,4-Dichlorobenzene	106-46-7	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Dichlorodifluoromethane	75-71-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1-Dichloroethane	75-34-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2-Dichloroethane	107-06-2	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1-Dichloroethene	75-35-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
cis-1,2-Dichloroethene	156-60-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
trans-1,2-Dichloroethene	156-60-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2-Dichloropropane	78-87-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,3-Dichloropropane	142-28-9	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
2,2-Dichloropropane	574-20-7	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1-Dichloropropane	563-58-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
cis-1,3-Dichloropropane	10061-41-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
trans-1,3-Dichloropropane	10061-42-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Ethylbenzene	100-04-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Hexachlorobutadiene	87-48-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Isopropylbenzene	98-82-8	<0.00500	0.00500	mg/L	01/17/18 15:54	1	

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Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM
WSMR

Sample ID: NT2780-1801081130-CD4687-4692
Lab Sample ID: 572924-003
Matrix: Liquid
Date Received: 01/09/18 16:37
Date Collected: 01/08/18 11:30
Prep Method: SW5030C
Tech: JOL
Analyst: JOL
Seq Number: 3036673
Date Prep: 01/17/18 13:20
SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylene Chloride	75-08-2	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
MTBE	1634-04-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Naphthalene	91-20-3	<0.0100	0.0100	mg/L	01/17/18 15:54	1	
n-Propylbenzene	103-45-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Styrene	100-42-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1,2-Trichloroethane	610-29-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1,2,2-Tetrachloroethane	79-34-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Tetrachloroethylene	127-18-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Toluene	108-88-3	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2,3-Trichlorobenzene	87-41-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2,4-Trichlorobenzene	120-82-1	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1,1-Trichloroethane	71-55-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,1,2-Trichloroethane	79-00-5	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Trichloroethylene	79-01-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Trichlorofluoromethane	75-49-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2,3-Trichloropropane	96-18-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,2,4-Trinitrobenzene	95-43-6	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
1,3,5-Trinitrobenzene	108-47-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
n-Xylene	95-47-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
m-Xylene	179601-23-1	<0.0100	0.0100	mg/L	01/17/18 15:54	1	
Vinyl Chloride	75-01-4	<0.00500	0.00500	mg/L	01/17/18 15:54	1	
Total Xylene	1330-20-7	<0.00500	0.00500	mg/L	01/17/18 15:54	1	

Parameter	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Benzene	71-43-2	100	%	75-151	01/17/18 15:54	
Dibenzofuran	100-04-4	100	%	63-144	01/17/18 15:54	
1,2-Dichloroethene-D4	2037-25-3	101	%	85-117	01/17/18 15:54	
Toluene-D8	400-00-4	103	%	74-124	01/17/18 15:54	

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Final 1.000

WHITE SANDS MISSILE RANGE
CERTIFIED CHEMISTRY LABORATORYTDF: WSI-AT BLDG 1415 Dyer St. White Sands Missile Range, NM 88002
Phone 575 678.2992 Fax 575 678.1671

LABORATORY ANALYTICAL REPORT

CLIENT: Zia Engineering & Env Consultants, LLC
Lab Order: 1303003
Client Sample ID: MT-GTO WASHRACK-TI-1303120915
Lab ID: 1303003-003
Date: 26-Apr-13
Project:
Collection Date: 3/12/2013 9:30:00 AM
Date Received: 3/12/2013
Matrix: LIQUID

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
METALS, TOTAL						
Arsenic	0.155	0.100	mg/L	1	3/15/2013 1:10:37 PM	Analyst: EAG
Barium	0.845	0.040	mg/L	1	3/15/2013 1:10:37 PM	
Cadmium	1.21	0.100	mg/L	1	3/15/2013 1:10:37 PM	
Chromium	0.122	0.100	mg/L	1	3/15/2013 1:10:37 PM	
Lead	0.872	0.100	mg/L	1	3/15/2013 1:10:37 PM	
Selenium	0.205	0.100	mg/L	1	3/15/2013 1:10:37 PM	
Silver	ND	0.040	mg/L	1	3/15/2013 1:10:37 PM	
MERCURY, TOTAL						
Mercury	ND	0.0025	mg/L	1	3/14/2013 3:31:44 PM	Analyst: MRR
SEMI-VOLATILE ORG. COMP. BY GC/MS						
1,2,4-Trichlorobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	Analyst: AF
1,2-Dichlorobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
1,3-Dichlorobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
1,4-Dichlorobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
1-Methylphtalene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
2,4,5-Trichlorophenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2,4,6-Trichlorophenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2,4-Dichlorophenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2,4-Dimethylphenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2,4-Dinitrophenol	ND	300	µg/L	10	4/2/2013 2:58:03 PM	
2,4-Dinitrobenzene	ND	100	µg/L	10	4/2/2013 2:58:03 PM	
2,6-Dinitrobenzene	ND	100	µg/L	10	4/2/2013 2:58:03 PM	
2-Chlorophthalene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
2-Chlorophenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2-Methylphtalene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
2-Methylphenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
2-Nitroaniline	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
2-Nitrophenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
3,4-Methylphenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
3-Nitroaniline	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
4,6-Dinitro-2-methylphenol	ND	150	µg/L	10	4/2/2013 2:58:03 PM	
4-Bromophenyl phenyl ether	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
4-Chloro-3-methylphenol	ND	80	µg/L	10	4/2/2013 2:58:03 PM	
4-Chloroaniline	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
4-Chlorophenyl phenyl ether	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
4-Nitroaniline	ND	100	µg/L	10	4/2/2013 2:58:03 PM	
4-Nitrophenol	ND	150	µg/L	10	4/2/2013 2:58:03 PM	
Aceophenone	ND	40	µg/L	10	4/2/2013 2:58:03 PM	

Qualifiers:
DF Dilution Factor
H Holding time for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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WHITE SANDS MISSILE RANGE
CERTIFIED CHEMISTRY LABORATORYTDF: WSI-AT BLDG 1415 Dyer St. White Sands Missile Range, NM 88002
Phone 575 678.2992 Fax 575 678.1671

LABORATORY ANALYTICAL REPORT

CLIENT: Zia Engineering & Env Consultants, LLC
Lab Order: 1303003
Client Sample ID: MT-GTO WASHRACK-TI-1303120915
Lab ID: 1303003-003
Date: 26-Apr-13
Project:
Collection Date: 3/12/2013 9:30:00 AM
Date Received: 3/12/2013
Matrix: LIQUID

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
SEMI-VOLATILE ORG. COMP. BY GC/MS						Analyst: AF
Aceophenylene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Aniline	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Anthracene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Azobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benz(a)anthracene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benz(a)pyrene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benz(b)fluoranthene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benz(g,h,i)perylene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benz(k)fluoranthene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Benzotriazole	ND	200	µg/L	10	4/2/2013 2:58:03 PM	
Benzyl alcohol	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Bis(2-chloroethoxy)methane	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Bis(2-chloroethyl)ether	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Bis(2-chloropropoxy)ether	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Bis(2-ethylhexyloxy)phthalate	150	40	µg/L	10	4/2/2013 2:58:03 PM	
Butyl benzyl phthalate	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Carbazole	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Chrysene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Dibenz(a,h)anthracene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Dibenzofuran	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Diethyl phthalate	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Dimethyl phthalate	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Di-n-butyl phthalate	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Di-n-octyl phthalate	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Diphenylamine	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Fluoranthene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Fluorene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Heptachlorobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Heptachlorobutadiene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Heptachlorocyclopentadiene	ND	100	µg/L	10	4/2/2013 2:58:03 PM	
Heptachloroimide	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Indeno(1,2,3-cd)pyrene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Isophorone	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Naphthalene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Nitrobenzene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
N-Nitrosodimethylamine	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
N-Nitroso-n-propylamine	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Pentachlorophenol	ND	300	µg/L	10	4/2/2013 2:58:03 PM	
Phenanthrene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Phenol	ND	60	µg/L	10	4/2/2013 2:58:03 PM	
Pyrene	ND	40	µg/L	10	4/2/2013 2:58:03 PM	
Pyridine	ND	40	µg/L	10	4/2/2013 2:58:03 PM	

LABORATORY ANALYTICAL REPORT

CLIENT: Zia Engineering & Env Consultants, LLC Date: 26-Apr-13
 Lab Order: 1303003 Project:
 Client Sample ID MT/GTO WASHRACK-TI-1303120915 Collection Date: 3/12/2013 9:30:00 AM
 Lab ID: 1303003-003 Date Received: 3/12/2013
 Matrix: LIQUID

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORG. COMP. BY GC/MS						
SW8270C (SW3510) Analyst: AF						
Sur: 2,4-Dinitrophenol	114	47.8-135.3	%REC	10	4/22/2013 2:58:03 PM	
Sur: 2-Fluorobiphenyl	0	1.121.8	%REC	10	4/22/2013 2:58:03 PM	
Sur: 2-Nitrophenol	48.3	1.82	%REC	10	4/22/2013 2:58:03 PM	
Sur: Nitrobenzene-d5	82.0	1.138.3	%REC	10	4/22/2013 2:58:03 PM	
Sur: Phenol-d5	0	1.52	%REC	10	4/22/2013 2:58:03 PM	
Sur: Terphenyl-d14	65.7	64.7-152.8	%REC	10	4/22/2013 2:58:03 PM	
NOTES: S - Surrogate outside recovery limits, biased low due to sample dilution to avoid matrix effects						
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
SW8260B (SW5030B) Analyst: IR						
1,1,1,2-Tetrachloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,1,1-Trichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,1,2,2-Tetrachloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,1,2-Trichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,1-Dichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,1-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2,3-Trichlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2,3-Trichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2,4-Trichlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2,4-Trichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2-Dibromo-3-chloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2-Dibromobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2-Dichlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,2-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,3,5-Trimethylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,3-Dichlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,3-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
1,4-Dichlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
2,2-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
2-Butanol	ND	500	µg/L	50	3/26/2013 8:44:00 PM	
2-Chlorobutane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
2-Hexanol	ND	500	µg/L	50	3/26/2013 8:44:00 PM	
4-Chlorobutane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
4-Isopropyltoluene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
4-Methyl-2-pentanone	ND	500	µg/L	50	3/26/2013 8:44:00 PM	
Acetone	2660	500	µg/L	50	3/26/2013 8:44:00 PM	
Benzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Bromobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Bromochloromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Bromodichloromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Bromoform	ND	100	µg/L	50	3/26/2013 8:44:00 PM	

Qualifiers: * Value exceeds Maximum Contaminant Level
 DF Dilution Factor
 H Holding time for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

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LABORATORY ANALYTICAL REPORT

CLIENT: Zia Engineering & Env Consultants, LLC Date: 26-Apr-13
 Lab Order: 1303003 Project:
 Client Sample ID MT/GTO WASHRACK-TI-1303120915 Collection Date: 3/12/2013 9:30:00 AM
 Lab ID: 1303003-003 Date Received: 3/12/2013
 Matrix: LIQUID

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
SW8260B (SW5030B) Analyst: IR						
Carbon tetrachloride	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Chlorobenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Chloroform	148	100	µg/L	50	3/26/2013 8:44:00 PM	
Chloromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
cis-1,2-Dichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
cis-1,3-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Dibromochloromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Dibromomethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Dichlorodifluoromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Ethylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Heptachlorobutadiene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Isopropylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
m,p-Xylene	ND	200	µg/L	50	3/26/2013 8:44:00 PM	
Methylene chloride	ND	500	µg/L	50	3/26/2013 8:44:00 PM	
Naphthalene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
n-Butylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
n-Propylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
o-Xylene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
sec-Butylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Styrene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
tert-Butylbenzene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Tetrachloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Toluene	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
trans-1,2-Dichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
trans-1,3-Dichloropropane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Trichloroethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Trichlorofluoromethane	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Vinyl chloride	ND	100	µg/L	50	3/26/2013 8:44:00 PM	
Xylenes, Total	ND	0	µg/L	50	3/26/2013 8:44:00 PM	
Sur: 4-Bromofluorobenzene	100	70-130	%REC	50	3/26/2013 8:44:00 PM	
Sur: Dibromofluoromethane	100	70-130	%REC	50	3/26/2013 8:44:00 PM	
Sur: Toluene-d8	90.0	70-130	%REC	50	3/26/2013 8:44:00 PM	

IGNITABILITY
 Ignitability 61.0 24.0 °C 1 3/12/2013 1:30:00 AM

NOTES:
 The flashpoint is greater than 60 degrees Celsius

LABORATORY HYDROGEN ION (PH)
 Hydrogen ion (pH) 6.50 0 pH Units 1 3/12/2013 10:50:00 AM

TOTAL PETROLEUM HYDROCARBONS, EXT. E418.1 (E418.1) Analyst: IR

Qualifiers: * Value exceeds Maximum Contaminant Level
 DF Dilution Factor
 H Holding time for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

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LABORATORY ANALYTICAL REPORT

CLIENT: Zia Engineering & Env Consultants, LLC Date: 26-Apr-13
 Lab Order: 1303003 Project:
 Client Sample ID MT/GTO WASHRACK-TI-1303120915 Collection Date: 3/12/2013 9:30:00 AM
 Lab ID: 1303003-003 Date Received: 3/12/2013
 Matrix: LIQUID

Analytes	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL PETROLEUM HYDROCARBONS, EXT.						
E418.1 (E418.1) Analyst: IR						
Petroleum Hydrocarbons, TR	7.0000	0.50000	mg/L	1	4/22/2013 1:54:25 PM	
NOTES: The laboratory is not approved by NELAP for this method						
TOTAL DISSOLVED SOLIDS						
M2540 C Analyst: MRR						
Total Dissolved Solids (Residue, Filtrable)	4700	0.500	mg/L	1	3/13/2013 4:10:00 PM	
TOTAL SUSPENDED SOLIDS						
M2540 D Analyst: MRR						
Total Suspended Solids (Residue, Non-Filtrable)	410	0.50	mg/L	1	3/13/2013 1:41:58 PM	

Qualifiers: * Value exceeds Maximum Contaminant Level
 DF Dilution Factor
 H Holding time for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

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Client Sample Results

Client: White Sands Chemistry Lab
 Project/Site: MT/GTO Wash Rack
 TestAmerica Job ID: 280-39845-1

Client Sample ID: 1303003-003
 Data Collected: 03/12/2013 09:16
 Date Received: 03/12/2013 09:00
 Lab Sample ID: 280-39845-1
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DB Fac
Oxyanide, Total	0.053	J	0.10	0.022	mg/L		03/19/13 12:59	03/20/13 12:10	1
Nitrogen, Kjeldahl	170		50	8.0	mg/L		03/21/13 08:24	03/22/13 22:29	10
Phosphate, Total	0.075	J	0.10	0.045	mg/L		03/15/13 13:55		1
Nitrate as N	ND		0.10	0.019	mg/L		03/13/13 18:21		1
Chloride	1400		2.5	1.0	mg/L		03/16/13 11:47		1

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TestAmerica Denver

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
Address: 100 Headquarters Ave.
WSMR, NM 88002
US EPA ID: NM2750211235
State ID: N/A

Organization: Materiel Test Directorate
SMR/GTO
Bldg. Number: 2780
SAP ID: N/A
DODAAC: WM0M58

●Waste Profile●

MT 18 029 07
Replaces: MT 17 066 01
Contact: Allen Tyree
Phone: 575-678-4773

1. Name of Waste: Sludge from GTO Washrack Sump
2. Clin: TX07
3. Generating Process: Wash Rack Maintenance
4. Projected Volume: 110 gallon (900 lb) Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☒ Yes ☐ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☐ Yes ☒ No

Part 2

●RCRA Characteristics●

- Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other
- Treatment Group:
☐ Wastewater ☐ Non-Wastewater
- ☐ Non-RCRA Waste (no other waste codes apply)
- ☐ Ignitable (D001) Flash Point:
☐ High TOC ($\geq 10\%$) ☐ Low TOC ($<10\%$)
- ☐ Corrosive (D002) pH:
- ☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive
- ☐ Toxicity Characteristics:
- ☒ F- Listed Waste: F003
- ☐ P - Listed Waste:
- ☐ U - Listed Waste:

●Chemical/Material Composition●

Component	Concentration/Range
DRO	7.7 mg/L
Acetone	0.12 mg/L
Chloroform	0.029 mg/L
Chloromethane	0.110 mg/L
Benzolic acid	0.190 mg/L
Bis(2-ethylhexyl) phthalate	0.031 mg/L
N-Nitrosodimethylamine	0.012 mg/L
Barium	0.605 - 1.4 mg/L
Cadmium	0.036 mg/L
Chromium	0.022 mg/L
Lead	0.130 mg/L
Selenium	0.016 mg/L
3 & 4 Methylphenol	0.39 mg/L

●Shipping Information●

DOT Hazardous Material? ☒ Yes ☐ No

Shipping Name:
Hazardous Waste, solid n.o.s. (acetone)

Waste Codes: F003

Hazard Class: 9 UN or NA No.: NA3077 PG: III

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.: 171

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached TestAmerica Lab analysis # 490-119728-1, 560-65946-1, and Xenco Lab analysis # 572924-002.

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON JON.EDWARD.14085
95882

Date
29-Jan-18



Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM WSMR

Sample Id: MT2780-1801081115-CD4677-4679
Lab Sample Id: 572924-002

Matrix: Sludge
Date Collected: 01.08.18 11.15

Date Received: 01.09.18 16.37

Analytical Method: TCLP Mercury by SW 7470A

Tech: AHI

Analyst: ELW

Seq Number: 3038069

Date Prep: 01.11.18 11.30

Prep Method: SW7470P

% Moisture:

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<0.000200	0.000200	mg/L	01.11.18 18.06	U	1

Analytical Method: TCLP Metals by SW 1311/6010B

Tech: AVM

Analyst: DEP

Seq Number: 3038163

Date Prep: 01.12.18 08.10

Prep Method: SW3010A

% Moisture:

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	<0.0500	0.0500	mg/L	01.12.18 17.14	U	1
Barium	7440-39-3	0.605	0.0500	mg/L	01.12.18 17.14		1
Cadmium	7440-43-9	<0.0250	0.0250	mg/L	01.12.18 17.14	U	1
Chromium	7440-47-3	<0.0500	0.0500	mg/L	01.12.18 17.14	U	1
Lead	7439-92-1	<0.0500	0.0500	mg/L	01.12.18 17.14	U	1
Silver	7440-22-4	<0.100	0.100	mg/L	01.12.18 17.14	U	1
Selenium	7782-49-2	<0.100	0.100	mg/L	01.12.18 17.14	U	1



Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM WSMR

Sample Id: MT2780-1801081115-CD4677-4679
Lab Sample Id: 572924-002

Matrix: Sludge
Date Collected: 01.08.18 11.15

Date Received: 01.09.18 16.37

Analytical Method: TCLP SVOCs by EPA 8270C

Prep Method: SW3510C

Tech: SOK

% Moisture:

Analyst: EKL

Date Prep: 01.12.18 11.22

Seq Number: 3038274

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,4-Dichlorobenzene	106-46-7	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
2,4,5-Trichlorophenol	95-95-4	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
2,4,6-Trichlorophenol	88-06-2	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
2,4-Dinitrotoluene	121-14-2	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
2-methylphenol	95-48-7	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
3&4-Methylphenol	15831-10-4	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
Hexachlorobenzene	118-74-1	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
Hexachlorobutadiene	87-68-3	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
Hexachloroethane	67-72-1	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
Nitrobenzene	98-95-3	<0.0250	0.0250	mg/L	01.12.18 19.28	U	1
Pentachlorophenol	87-86-5	<0.0500	0.0500	mg/L	01.12.18 19.28	U	1
Pyridine	110-86-1	<0.0500	0.0500	mg/L	01.12.18 19.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
2-Fluorophenol	367-12-4	65	%	30-100	01.12.18 19.28	
Phenol-d6	13127-88-3	71	%	15-94	01.12.18 19.28	
Nitrobenzene-d5	4165-60-0	60	%	46-111	01.12.18 19.28	
2-Fluorobiphenyl	321-60-8	61	%	44-117	01.12.18 19.28	
2,4,6-Tribromophenol	118-79-6	84	%	48-117	01.12.18 19.28	
Terphenyl-D14	1718-51-0	87	%	46-126	01.12.18 19.28	



Certificate of Analytical Results 572924

HZ Technical Services, LLC, White Sands Missile Range, NM WSMR

Sample Id: MT2780-1801081115-CD4677-4679

Matrix: Sludge

Date Received: 01.09.18 16.37

Lab Sample Id: 572924-002

Date Collected: 01.08.18 11.15

Analytical Method: TCLP VOCs By SW846 8260B

Prep Method: SW5030B

Tech: SAD

% Moisture:

Analyst: SAD

Date Prep: 01.15.18 16.30

Seq Number: 3038343

SUB: TX104704215-17-23

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Methyl ethyl ketone	78-93-3	<2.50	2.50	mg/L	01.15.18 17.38	U	50
Carbon Tetrachloride	56-23-5	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Chlorobenzene	108-90-7	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Chloroform	67-66-3	<0.250	0.250	mg/L	01.15.18 17.38	U	50
1,4-Dichlorobenzene	106-46-7	<0.250	0.250	mg/L	01.15.18 17.38	U	50
1,2-Dichloroethane	107-06-2	<0.250	0.250	mg/L	01.15.18 17.38	U	50
1,1-Dichloroethene	75-35-4	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Tetrachloroethylene	127-18-4	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Trichloroethylene	79-01-6	<0.250	0.250	mg/L	01.15.18 17.38	U	50
Vinyl Chloride	75-01-4	<0.100	0.100	mg/L	01.15.18 17.38	U	50
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
Dibromofluoromethane	1868-53-7	94	%	75-131	01.15.18 17.38		
1,2-Dichloroethane-D4	17060-07-0	96	%	63-144	01.15.18 17.38		
Toluene-D8	2037-26-5	104	%	80-117	01.15.18 17.38		
4-Bromofluorobenzene	460-00-4	101	%	74-124	01.15.18 17.38		

EXECUTIVE SUMMARY - Detections

Client: General Services Administration

Job Number: 490-119728-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
490-119728-1	S104 MT2780 170109 0922					
GRO (C6-C10)		91	J	100	ug/L	8015B
DRO (C10-C28)		7700		330	ug/L	8015B
490-119728-4	S204 MT2780 170109 09:45					
DRO (C10-C28)		680		120	mg/Kg	8015B

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 490-119728-1

Client Matrix: Water

Date Sampled: 01/09/2017 0922

Date Received: 01/10/2017 0915

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	490-400578	Instrument ID:	HP19
Prep Method:	5030B		N/A	Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/12/2017 2026			Injection Volume:	5 mL
Prep Date:	01/12/2017 2026			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
GRO (C6-C10)	91	J	50	100

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	100		50 - 150

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 490-119728-2

Date Sampled: 01/09/2017 0922

Client Matrix: Waste

Date Received: 01/10/2017 0915

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	490-400591	Instrument ID:	HP46
Prep Method:	5030B	Prep Batch:	490-400309	Initial Weight/Volume:	1.09 g
Dilution:	1.0			Final Weight/Volume:	10.0 mL
Analysis Date:	01/12/2017 1806			Injection Volume:	5 mL
Prep Date:	01/11/2017 1132			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
GRO (C6-C10)		23	U	23	46

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	71		50 - 150

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 490-119728-1

Client Matrix: Water

Date Sampled: 01/09/2017 0922

Date Received: 01/10/2017 0915

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	490-400254	Instrument ID:	HP47
Prep Method:	3510C	Prep Batch:	490-400262	Initial Weight/Volume:	230 mL
Dilution:	3.0			Final Weight/Volume:	1 mL
Analysis Date:	01/11/2017 1339			Injection Volume:	5 uL
Prep Date:	01/11/2017 0915			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
DRO (C10-C28)	7700		300	330

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl (Surr)	53		50 - 150

Analytical Data

Client: General Services Administration

Job Number: 490-119728-1

Client Sample ID: S204 MT2780 170109 09:45

Lab Sample ID: 490-119728-4

Date Sampled: 01/09/2017 0945

Client Matrix: Solid

Date Received: 01/10/2017 0915

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	490-401250	Instrument ID:	HP44
Prep Method:	3550C	Prep Batch:	490-401329	Initial Weight/Volume:	25.45 g
Dilution:	25			Final Weight/Volume:	1.00 mL
Analysis Date:	01/16/2017 1837			Injection Volume:	1 uL
Prep Date:	01/16/2017 1135			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
DRO (C10-C28)		680		61	120

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl (Surr)	0	X	50 - 150

EXECUTIVE SUMMARY - Detections

Client: General Services Administration

Job Number: 560-65946-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
560-65946-2 S104 MT2780 170109 0922						
2-Butanone (MEK)		47	J	50	ug/L	8260B
4-Methyl-2-pentanone (MIBK)		26	J	50	ug/L	8260B
Acetone		120		50	ug/L	8260B
Carbon disulfide		20	J	25	ug/L	8260B
Chlorobenzene		2.4	J	5.0	ug/L	8260B
Chloroform		29		5.0	ug/L	8260B
Chloromethane		110		25	ug/L	8260B
1-Methylnaphthalene		0.92	J	10	ug/L	8270C
3 & 4 Methylphenol		2.3	J	20	ug/L	8270C
Benzoic acid		190		50	ug/L	8270C
Bis(2-ethylhexyl) phthalate		31		20	ug/L	8270C
Di-n-butyl phthalate		3.8	J	10	ug/L	8270C
N-Nitrosodimethylamine		12		10	ug/L	8270C
Phenanthrene		0.89	J	10	ug/L	8270C
Phenol		6.7	J	10	ug/L	8270C
Pyrene		0.50	J	10	ug/L	8270C
Barium		810		10	ug/L	6010B
Cadmium		36		5.0	ug/L	6010B
Chromium		22		10	ug/L	6010B
Lead		130		10	ug/L	6010B
Selenium		8.4	J	10	ug/L	6010B
560-65946-3 S104 MT2780 170109 0945						
TCLP						
4-Methyl-2-pentanone (MIBK)		0.022	J	0.025	mg/L	8260B
Acetone		0.057	J	0.25	mg/L	8260B
3 & 4 Methylphenol		0.39		0.20	mg/L	8270C
Benzoic acid		0.14	J	0.50	mg/L	8270C
Bis(2-ethylhexyl) phthalate		0.056	J	0.20	mg/L	8270C
Diethyl phthalate		0.0078	J	0.10	mg/L	8270C
Di-n-butyl phthalate		0.0074	J	0.10	mg/L	8270C
Phenol		0.012	J	0.10	mg/L	8270C
Arsenic		0.0069	J	0.010	mg/L	6010B
Barium		1.4		0.010	mg/L	6010B
Cadmium		0.0027	J	0.0050	mg/L	6010B
Selenium		0.016		0.010	mg/L	6010B

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922-TB

Lab Sample ID: 560-65946-1TB

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: VGCMS#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121716.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Analysis Date: 01/12/2017 1457		Final Weight/Volume: 5 mL
Prep Date: 01/12/2017 1457		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.21	U	0.21	1.0
1,1,1-Trichloroethane	0.30	U	0.30	1.0
1,1,2,2-Tetrachloroethane	0.19	U	0.19	1.0
1,1,2-Trichloroethane	0.17	U	0.17	1.0
1,1-Dichloroethane	0.17	U	0.17	1.0
1,1-Dichloroethene	0.30	U	0.30	1.0
1,1-Dichloropropene	0.19	U	0.19	1.0
1,2,3-Trichlorobenzene	0.22	U	0.22	5.0
1,2,3-Trichloropropane	0.19	U	0.19	1.0
1,2,4-Trichlorobenzene	0.17	U	0.17	5.0
1,2,4-Trimethylbenzene	0.20	U	0.20	2.0
1,2-Dibromo-3-Chloropropane	0.35	U	0.35	5.0
1,2-Dichlorobenzene	0.17	U	0.17	1.0
1,2-Dichloroethane	0.17	U	0.17	1.0
1,2-Dichloroethene, Total	0.20	U	0.20	2.0
1,2-Dichloropropane	0.17	U	0.17	1.0
1,3,5-Trimethylbenzene	0.20	U	0.20	2.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.20	U	0.20	1.0
2,2-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.0	U	1.0	10
2-Chlorotoluene	0.16	U	0.16	1.0
2-Hexanone	1.6	U	1.6	10
4-Chlorotoluene	0.24	U	0.24	1.0
4-Isopropyltoluene	0.15	U	0.15	1.0
4-Methyl-2-pentanone (MIBK)	0.51	U	0.51	10
Acetone	5.0	U	5.0	10
Benzene	0.33	U	0.33	1.0
Bromobenzene	0.13	U	0.13	1.0
Bromochloromethane	0.23	U	0.23	1.0
Bromodichloromethane	0.18	U	0.18	1.0
Bromoform	0.50	U	0.50	5.0
Bromomethane	0.39	U	0.39	5.0
Carbon disulfide	0.50	U	0.50	5.0
Carbon tetrachloride	0.25	U	0.25	1.0
Chlorobenzene	0.14	U	0.14	1.0
Chloroethane	0.40	U	0.40	5.0
Chloroform	0.17	U	0.17	1.0
Chloromethane	0.39	U	0.39	5.0
cis-1,2-Dichloroethene	0.12	U	0.12	1.0
cis-1,3-Dichloropropene	0.15	U	0.15	1.0
Dibromochloromethane	0.22	U	0.22	2.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.43	U	0.43	5.0
Ethylbenzene	0.20	U	0.20	1.0

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922-TB

Lab Sample ID: 560-65946-1TB

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: VGCMS#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121716.D
Dilution: 1.0		Initial Weight/Volume: 5 mL
Analysis Date: 01/12/2017 1457		Final Weight/Volume: 5 mL
Prep Date: 01/12/2017 1457		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.86	U	0.86	5.0
Isopropylbenzene	0.20	U	0.20	5.0
Methyl tert-butyl ether	0.20	U	0.20	1.0
Methylene Chloride	2.0	U	2.0	10
m-Xylene & p-Xylene	0.26	U	0.26	2.0
Naphthalene	0.20	U	0.20	5.0
n-Butylbenzene	0.20	U	0.20	2.0
N-Propylbenzene	0.11	U	0.11	1.0
o-Xylene	0.20	U	0.20	1.0
sec-Butylbenzene	0.30	U	0.30	2.0
Styrene	0.20	U	0.20	1.0
tert-Butylbenzene	0.20	U	0.20	2.0
Tetrachloroethene	0.19	U	0.19	1.0
Toluene	0.50	U	0.50	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.20	U	0.20	5.0
Trichloroethene	0.32	U	0.32	1.0
Trichlorofluoromethane	0.24	U	0.24	1.0
Vinyl chloride	0.30	U	0.30	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	98		70 - 140	
4-Bromofluorobenzene (Surr)	97		70 - 130	
Dibromofluoromethane (Surr)	101		69 - 130	
Toluene-d8 (Surr)	98		70 - 130	

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	560-135564	Instrument ID:	VGCMS#1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	01121717.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	01/12/2017 1521			Final Weight/Volume:	5 mL
Prep Date:	01/12/2017 1521				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	1.0	5.0
1,1,1-Trichloroethane	1.5	U	1.5	5.0
1,1,2,2-Tetrachloroethane	0.95	U	0.95	5.0
1,1,2-Trichloroethane	0.87	U	0.87	5.0
1,1-Dichloroethane	0.84	U	0.84	5.0
1,1-Dichloroethene	1.5	U	1.5	5.0
1,1-Dichloropropene	0.93	U	0.93	5.0
1,2,3-Trichlorobenzene	1.1	U	1.1	25
1,2,3-Trichloropropane	0.96	U	0.96	5.0
1,2,4-Trichlorobenzene	0.84	U	0.84	25
1,2,4-Trimethylbenzene	1.0	U	1.0	10
1,2-Dibromo-3-Chloropropane	1.7	U	1.7	25
1,2-Dichlorobenzene	0.85	U	0.85	5.0
1,2-Dichloroethane	0.86	U	0.86	5.0
1,2-Dichloroethene, Total	1.0	U	1.0	10
1,2-Dichloropropane	0.87	U	0.87	5.0
1,3,5-Trimethylbenzene	1.0	U	1.0	10
1,3-Dichlorobenzene	0.64	U	0.64	5.0
1,3-Dichloropropane	0.73	U	0.73	5.0
1,4-Dichlorobenzene	1.0	U	1.0	5.0
2,2-Dichloropropane	1.7	U	1.7	5.0
2-Butanone (MEK)	47	J	5.0	50
2-Chlorotoluene	0.78	U	0.78	5.0
2-Hexanone	7.8	U	7.8	50
4-Chlorotoluene	1.2	U	1.2	5.0
4-Isopropyltoluene	0.75	U	0.75	5.0
4-Methyl-2-pentanone (MIBK)	26	J	2.6	50
Acetone	120		25	50
Benzene	1.7	U	1.7	5.0
Bromobenzene	0.64	U	0.64	5.0
Bromochloromethane	1.1	U	1.1	5.0
Bromodichloromethane	0.88	U	0.88	5.0
Bromoform	2.5	U	2.5	25
Bromomethane	2.0	U	2.0	25
Carbon disulfide	20	J	2.5	25
Carbon tetrachloride	1.3	U	1.3	5.0
Chlorobenzene	2.4	J	0.68	5.0
Chloroethane	2.0	U	2.0	25
Chloroform	29		0.87	5.0
Chloromethane	110		2.0	25
cis-1,2-Dichloroethene	0.61	U	0.61	5.0
cis-1,3-Dichloropropene	0.73	U	0.73	5.0
Dibromochloromethane	1.1	U	1.1	10
Dibromomethane	0.83	U	0.83	5.0
Dichlorodifluoromethane	2.1	U	2.1	25
Ethylbenzene	1.0	U	1.0	5.0

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 560-135564	Instrument ID: VGCMS#1
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: 01121717.D
Dilution: 5.0		Initial Weight/Volume: 5 mL
Analysis Date: 01/12/2017 1521		Final Weight/Volume: 5 mL
Prep Date: 01/12/2017 1521		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	0.88	U	0.88	5.0
Hexachlorobutadiene	4.3	U	4.3	25
Isopropylbenzene	1.0	U	1.0	25
Methyl tert-butyl ether	1.0	U	1.0	5.0
Methylene Chloride	10	U	10	50
m-Xylene & p-Xylene	1.3	U	1.3	10
Naphthalene	1.0	U	1.0	25
n-Butylbenzene	1.0	U	1.0	10
N-Propylbenzene	0.53	U	0.53	5.0
o-Xylene	1.0	U	1.0	5.0
sec-Butylbenzene	1.5	U	1.5	10
Styrene	1.0	U	1.0	5.0
tert-Butylbenzene	1.0	U	1.0	10
Tetrachloroethene	0.95	U	0.95	5.0
Toluene	2.5	U	2.5	5.0
trans-1,2-Dichloroethene	1.0	U	1.0	5.0
trans-1,3-Dichloropropene	1.0	U	1.0	25
Trichloroethene	1.6	U	1.6	5.0
Trichlorofluoromethane	1.2	U	1.2	5.0
Vinyl chloride	1.5	U	1.5	5.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	101		70 - 140	
4-Bromofluorobenzene (Surr)	92		70 - 130	
Dibromofluoromethane (Surr)	106		69 - 130	
Toluene-d8 (Surr)	100		70 - 130	

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Date Sampled: 01/09/2017 0945

Client Matrix: Waste

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	560-135844	Instrument ID:	VGCMS#2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	01201718.D
Dilution:	5.0	Leach Batch:	560-135826	Initial Weight/Volume:	5 mL
Analysis Date:	01/20/2017 1624			Final Weight/Volume:	5 mL
Prep Date:	01/20/2017 1624				
Leach Date:	01/19/2017 1700				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		0.0010	U	0.0010	0.025
1,1,1-Trichloroethane		0.0015	U	0.0015	0.025
1,1,2,2-Tetrachloroethane		0.00095	U	0.00095	0.025
1,1,2-Trichloroethane		0.00087	U	0.00087	0.025
1,1-Dichloroethane		0.00084	U	0.00084	0.025
1,1-Dichloroethene		0.0015	U	0.0015	0.025
1,1-Dichloropropene		0.00093	U	0.00093	0.025
1,2,3-Trichlorobenzene		0.0011	U	0.0011	0.13
1,2,3-Trichloropropane		0.00096	U	0.00096	0.025
1,2,4-Trichlorobenzene		0.00084	U	0.00084	0.13
1,2,4-Trimethylbenzene		0.0010	U	0.0010	0.025
1,2-Dibromo-3-Chloropropane		0.0017	U	0.0017	0.025
1,2-Dichlorobenzene		0.00059	U	0.00059	0.025
1,2-Dichloroethane		0.00080	U	0.00080	0.025
1,2-Dichloroethene, Total		0.0010	U	0.0010	0.025
1,2-Dichloropropane		0.00087	U	0.00087	0.025
1,3,5-Trimethylbenzene		0.0010	U	0.0010	0.025
1,3-Dichlorobenzene		0.00064	U	0.00064	0.025
1,3-Dichloropropane		0.00073	U	0.00073	0.025
1,4-Dichlorobenzene		0.0010	U	0.0010	0.025
2,2-Dichloropropane		0.0017	U	0.0017	0.025
2-Butanone (MEK)		0.0050	U	0.0050	0.10
2-Chlorotoluene		0.00078	U	0.00078	0.025
2-Hexanone		0.0010	U	0.0010	0.025
4-Chlorotoluene		0.0012	U	0.0012	0.025
4-Isopropyltoluene		0.00075	U	0.00075	0.025
4-Methyl-2-pentanone (MIBK)		0.022	J	0.00058	0.025
Acetone		0.057	J	0.025	0.25
Benzene		0.0017	U	0.0017	0.050
Bromobenzene		0.00064	U	0.00064	0.025
Bromochloromethane		0.0011	U	0.0011	0.025
Bromodichloromethane		0.00088	U	0.00088	0.025
Bromoform		0.0025	U	0.0025	0.13
Bromomethane		0.0020	U	0.0020	0.025
Carbon disulfide		0.0025	U	0.0025	0.025
Carbon tetrachloride		0.0013	U	0.0013	0.025
Chlorobenzene		0.00068	U	0.00068	0.025
Chloroethane		0.0020	U	0.0020	0.025
Chloroform		0.0010	U	0.0010	0.025
Chloromethane		0.0020	U	0.0020	0.025
cis-1,2-Dichloroethene		0.00061	U	0.00061	0.025
cis-1,3-Dichloropropene		0.00073	U	0.00073	0.025
Dibromochloromethane		0.0011	U	0.0011	0.025
Dibromomethane		0.00083	U	0.00083	0.025
Dichlorodifluoromethane		0.0021	U	0.0021	0.025

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Client Matrix: Waste

Date Sampled: 01/09/2017 0945

Date Received: 01/11/2017 1240

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	560-135844	Instrument ID:	VGCMS#2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	01201718.D
Dilution:	5.0	Leach Batch:	560-135826	Initial Weight/Volume:	5 mL
Analysis Date:	01/20/2017 1624			Final Weight/Volume:	5 mL
Prep Date:	01/20/2017 1624				
Leach Date:	01/19/2017 1700				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Ethylbenzene		0.0010	U	0.0010	0.025
Ethylene Dibromide		0.00075	U	0.00075	0.025
Hexachlorobutadiene		0.0043	U	0.0043	0.13
Isopropylbenzene		0.0010	U	0.0010	0.025
Methyl tert-butyl ether		0.0010	U	0.0010	0.025
Methylene Chloride		0.010	U	0.010	0.25
m-Xylene & p-Xylene		0.0013	U	0.0013	0.050
Naphthalene		0.0010	U	0.0010	0.13
n-Butylbenzene		0.0010	U	0.0010	0.025
N-Propylbenzene		0.00053	U	0.00053	0.025
o-Xylene		0.0010	U	0.0010	0.025
sec-Butylbenzene		0.0015	U	0.0015	0.025
Styrene		0.0010	U	0.0010	0.13
tert-Butylbenzene		0.0010	U	0.0010	0.025
Tetrachloroethene		0.00095	U	0.00095	0.025
Toluene		0.0015	U	0.0015	0.025
trans-1,2-Dichloroethene		0.0010	U	0.0010	0.025
trans-1,3-Dichloropropene		0.0010	U	0.0010	0.025
Trichloroethene		0.0016	U	0.0016	0.025
Trichlorofluoromethane		0.0012	U	0.0012	0.025
Vinyl chloride		0.0015	U	0.0015	0.025

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 560-135635	Instrument ID: SVGCMS#2
Prep Method: 3520C	Prep Batch: 560-135581	Lab File ID: 01161710.D
Dilution: 1.0		Initial Weight/Volume: 250 mL
Analysis Date: 01/16/2017 1119		Final Weight/Volume: 1 mL
Prep Date: 01/12/2017 1015		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4,5-Tetrachlorobenzene	0.66	U	0.66	10
1,2,4-Trichlorobenzene	0.65	U	0.65	10
1,2-Dichlorobenzene	0.78	U	0.78	10
1,2-Diphenylhydrazine (as Azobenzene)	0.79	U	0.79	10
1,3-Dichlorobenzene	0.49	U	0.49	10
1,4-Dichlorobenzene	0.82	U	0.82	10
1-Methylnaphthalene	0.92	J	0.67	10
2,2'-oxybis[1-chloropropane]	0.50	U	0.50	10
2,4,5-Trichlorophenol	0.86	U	0.86	10
2,4,6-Trichlorophenol	0.66	U	0.66	10
2,4-Dichlorophenol	0.70	U	0.70	10
2,4-Dimethylphenol	0.59	U	0.59	10
2,4-Dinitrophenol	2.7	U	2.7	20
2,4-Dinitrotoluene	0.51	U	0.51	20
2,6-Dichlorophenol	0.66	U	0.66	10
2,6-Dinitrotoluene	0.76	U	0.76	10
2-Chloronaphthalene	0.60	U	0.60	10
2-Chlorophenol	0.73	U	0.73	10
2-Methylnaphthalene	0.70	U	0.70	10
2-Methylphenol	0.61	U	0.61	10
3 & 4 Methylphenol	2.3	J	0.76	20
3,3'-Dichlorobenzidine	0.79	U	0.79	10
3-Nitroaniline	0.51	U	0.51	10
4,6-Dinitro-2-methylphenol	0.96	U	0.96	10
4-Chloroaniline	0.55	U	0.55	10
4-Chlorophenyl phenyl ether	0.53	U	0.53	10
4-Nitroaniline	0.82	U	0.82	10
4-Nitrophenol	1.7	U	1.7	10
Acenaphthene	0.46	U	0.46	10
Acenaphthylene	0.45	U	0.45	10
Anthracene	0.70	U	0.70	10
Benzidine	0.39	U	0.39	50
Benzo[a]anthracene	0.65	U	0.65	10
Benzo[a]pyrene	0.74	U	0.74	10
Benzo[b]fluoranthene	0.91	U	0.91	10
Benzo[g,h,i]perylene	1.1	U	1.1	10
Benzo[k]fluoranthene	1.5	U	1.5	10
Benzoic acid	190		0.83	50
Benzyl alcohol	0.83	U	0.83	10
Bis(2-chloroethoxy)methane	0.44	U	0.44	10
Bis(2-chloroethyl)ether	1.6	U	1.6	10
Bis(2-ethylhexyl) phthalate	31		5.0	20
Butyl benzyl phthalate	0.82	U	0.82	10
Carbazole	0.60	U	0.60	10
Chrysene	0.49	U	0.49	10
Dibenz(a,h)anthracene	0.87	U	0.87	10

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Client Matrix: Water

Date Sampled: 01/09/2017 0922

Date Received: 01/11/2017 1240

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 560-135635	Instrument ID: SVGCMS#2
Prep Method: 3520C	Prep Batch: 560-135581	Lab File ID: 01161710.D
Dilution: 1.0		Initial Weight/Volume: 250 mL
Analysis Date: 01/16/2017 1119		Final Weight/Volume: 1 mL
Prep Date: 01/12/2017 1015		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.49	U	0.49	10
Diethyl phthalate	0.67	U	0.67	10
Dimethyl phthalate	0.59	U	0.59	10
Di-n-butyl phthalate	3.8	J	0.71	10
Di-n-octyl phthalate	1.1	U	1.1	10
Fluoranthene	0.50	U	0.50	10
Fluorene	0.42	U	0.42	10
Hexachlorobenzene	0.60	U	0.60	10
Hexachlorobutadiene	0.72	U	0.72	10
Hexachlorocyclopentadiene	0.84	U	0.84	10
Hexachloroethane	0.59	U	0.59	10
Indeno[1,2,3-cd]pyrene	0.92	U	0.92	10
Isophorone	0.55	U	0.55	10
Naphthalene	0.79	U	0.79	10
Nitrobenzene	0.59	U	0.59	10
N-Nitrosodimethylamine	12		1.4	10
N-Nitrosodi-n-propylamine	0.62	U	0.62	10
N-Nitrosodiphenylamine	1.0	U	1.0	10
Pentachlorophenol	1.3	U	1.3	20
Phenanthrene	0.89	J	0.59	10
Phenol	6.7	J	0.77	10
Pyrene	0.50	J	0.44	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	81		18 - 130
2-Fluorobiphenyl	41		23 - 130
2-Fluorophenol (Surr)	21		10 - 130
Nitrobenzene-d5 (Surr)	34		27 - 130
Phenol-d5 (Surr)	26		10 - 130
Terphenyl-d14 (Surr)	25		10 - 141

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Date Sampled: 01/09/2017 0945

Client Matrix: Waste

Date Received: 01/11/2017 1240

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C	Analysis Batch: 560-135686	Instrument ID: SVGCMS#2
Prep Method: 3520C	Prep Batch: 560-135668	Lab File ID: 01171709.D
Dilution: 1.0	Leach Batch: 560-135549	Initial Weight/Volume: 25 mL
Analysis Date: 01/17/2017 1254		Final Weight/Volume: 1 mL
Prep Date: 01/16/2017 1000		Injection Volume: 1 uL
Leach Date: 01/11/2017 1600		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
1,2-Diphenylhydrazine (as Azobenzene)		0.0056	U	0.0056	0.10
Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
1,2,4,5-Tetrachlorobenzene		0.0056	U	0.0056	0.10
1,2,4-Trichlorobenzene		0.0059	U	0.0059	0.10
1,2-Dichlorobenzene		0.0050	U	0.0050	0.10
1,3-Dichlorobenzene		0.020	U	0.020	0.10
1,4-Dichlorobenzene		0.0074	U	0.0074	0.10
1-Methylnaphthalene		0.0050	U	0.0050	0.10
2,2'-oxybis[1-chloropropane]		0.0057	U	0.0057	0.10
2,4,5-Trichlorophenol		0.0040	U	0.0040	0.10
2,4,6-Trichlorophenol		0.0039	U	0.0039	0.10
2,4-Dichlorophenol		0.0039	U	0.0039	0.10
2,4-Dimethylphenol		0.0056	U	0.0056	0.10
2,4-Dinitrophenol		0.0093	U	0.0093	0.10
2,4-Dinitrotoluene		0.0038	U	0.0038	0.10
2,6-Dichlorophenol		0.0056	U	0.0056	0.10
2,6-Dinitrotoluene		0.0052	U	0.0052	0.10
2-Chloronaphthalene		0.0050	U	0.0050	0.10
2-Chlorophenol		0.0036	U	0.0036	0.10
2-Methylnaphthalene		0.0043	U	0.0043	0.10
2-Methylphenol		0.0049	U	0.0049	0.10
3 & 4 Methylphenol		0.39		0.0088	0.20
3,3'-Dichlorobenzidine		0.010	U	0.010	0.10
3-Nitroaniline		0.018	U	0.018	0.10
4,6-Dinitro-2-methylphenol		0.018	U	0.018	0.10
4-Chloroaniline		0.0046	U	0.0046	0.10
4-Chlorophenyl phenyl ether		0.0052	U	0.0052	0.10
4-Nitroaniline		0.015	U	0.015	0.10
4-Nitrophenol		0.018	U	0.018	0.10
Acenaphthene		0.0057	U	0.0057	0.10
Acenaphthylene		0.0050	U	0.0050	0.10
Anthracene		0.0040	U	0.0040	0.10
Benzidine		0.10	U	0.10	0.50
Benzo[a]anthracene		0.0050	U	0.0050	0.10
Benzo[a]pyrene		0.0050	U	0.0050	0.10
Benzo[b]fluoranthene		0.0050	U	0.0050	0.10
Benzo[g,h,i]perylene		0.0050	U	0.0050	0.10
Benzo[k]fluoranthene		0.0036	U	0.0036	0.10
Benzoic acid		0.14	J	0.016	0.50
Benzyl alcohol		0.014	U	0.014	0.10
Bis(2-chloroethoxy)methane		0.0059	U	0.0059	0.10
Bis(2-chloroethyl)ether		0.0071	U	0.0071	0.10
Bis(2-ethylhexyl) phthalate		0.056	J	0.050	0.20
Butyl benzyl phthalate		0.0050	U	0.0050	0.10

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Date Sampled: 01/09/2017 0945

Client Matrix: Waste

Date Received: 01/11/2017 1240

8270C Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method: 8270C	Analysis Batch: 560-135686	Instrument ID: SVGCMS#2
Prep Method: 3520C	Prep Batch: 560-135668	Lab File ID: 01171709.D
Dilution: 1.0	Leach Batch: 560-135549	Initial Weight/Volume: 25 mL
Analysis Date: 01/17/2017 1254		Final Weight/Volume: 1 mL
Prep Date: 01/16/2017 1000		Injection Volume: 1 uL
Leach Date: 01/11/2017 1600		

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Carbazole		0.0050	U	0.0050	0.10
Chrysene		0.0050	U	0.0050	0.10
Dibenz(a,h)anthracene		0.0050	U	0.0050	0.10
Dibenzofuran		0.0051	U	0.0051	0.10
Diethyl phthalate		0.0078	J	0.0052	0.10
Dimethyl phthalate		0.0055	U	0.0055	0.10
Di-n-butyl phthalate		0.0074	J	0.0050	0.10
Di-n-octyl phthalate		0.0050	U	0.0050	0.10
Fluoranthene		0.0050	U	0.0050	0.10
Fluorene		0.0061	U	0.0061	0.10
Hexachlorobenzene		0.0065	U	0.0065	0.10
Hexachlorobutadiene		0.010	U	0.010	0.10
Hexachlorocyclopentadiene		0.050	U	0.050	0.10
Hexachloroethane		0.010	U	0.010	0.10
Indeno[1,2,3-cd]pyrene		0.0050	U	0.0050	0.10
Isophorone		0.0063	U	0.0063	0.10
Naphthalene		0.0048	U	0.0048	0.10
Nitrobenzene		0.0034	U	0.0034	0.10
N-Nitrosodimethylamine		0.013	U	0.013	0.10
N-Nitrosodi-n-propylamine		0.0065	U	0.0065	0.10
N-Nitrosodiphenylamine		0.0051	U	0.0051	0.10
Pentachlorophenol		0.10	U	0.10	0.20
Phenanthrene		0.0051	U	0.0051	0.10
Phenol		0.012	J	0.010	0.10
Pyrene		0.010	U	0.010	0.10

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	86		18 - 130
2-Fluorobiphenyl	87		23 - 130
2-Fluorophenol (Surr)	65		10 - 130
Nitrobenzene-d5 (Surr)	89		27 - 130
Phenol-d5 (Surr)	70		10 - 130
Terphenyl-d14 (Surr)	46		10 - 141

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0922

Lab Sample ID: 560-65946-2

Date Sampled: 01/09/2017 0922

Client Matrix: Water

Date Received: 01/11/2017 1240

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	560-135593	Instrument ID:	MTS6500
Prep Method:	3010A	Prep Batch:	560-135576	Lab File ID:	170112a-fixed.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/12/2017 1321			Final Weight/Volume:	50 mL
Prep Date:	01/12/2017 0930				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	3.5	U	3.5	10
Barium	810		2.0	10
Cadmium	36		0.34	5.0
Chromium	22		1.1	10
Lead	130		3.3	10
Selenium	8.4	J	4.2	10
Silver	1.0	U	1.0	5.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	560-135590	Instrument ID:	Mhg1
Prep Method:	7470A	Prep Batch:	560-135591	Lab File ID:	170112W.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	01/12/2017 1600			Final Weight/Volume:	50 mL
Prep Date:	01/12/2017 1100				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.13	U	0.13	2.0

Analytical Data

Client: General Services Administration

Job Number: 560-65946-1

Client Sample ID: S104 MT2780 170109 0945

Lab Sample ID: 560-65946-3

Date Sampled: 01/09/2017 0945

Client Matrix: Waste

Date Received: 01/11/2017 1240

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	560-135593	Instrument ID:	MTS6500
Prep Method:	3010A	Prep Batch:	560-135576	Lab File ID:	170112a-fixed.asc
Dilution:	1.0	Leach Batch:	560-135549	Initial Weight/Volume:	50 mL
Analysis Date:	01/12/2017 1312			Final Weight/Volume:	50 mL
Prep Date:	01/12/2017 0930				
Leach Date:	01/11/2017 1600				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.0069	J	0.0035	0.010
Barium		1.4		0.0020	0.010
Cadmium		0.0027	J	0.00034	0.0050
Chromium		0.0011	U	0.0011	0.010
Lead		0.0033	U	0.0033	0.010
Selenium		0.016		0.0042	0.010
Silver		0.0010	U	0.0010	0.0050

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	560-135590	Instrument ID:	Mhg1
Prep Method:	7470A	Prep Batch:	560-135591	Lab File ID:	170112W.PRN
Dilution:	1.0	Leach Batch:	560-135549	Initial Weight/Volume:	50 mL
Analysis Date:	01/12/2017 1558			Final Weight/Volume:	50 mL
Prep Date:	01/12/2017 1100				
Leach Date:	01/11/2017 1600				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.00013	U	0.00013	0.0020

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●

Name: US Army, WSMR
 Address: 100 Headquarters Ave.
 WSMR, NM 88002
 US EPA ID: NM2750211235
 State ID: N/A

Organization: Public Works Directorate
 **** WWTP
 Bldg. Number: 21288
 SAP ID: N/A
 DODAAC: WM0M58

●Waste Profile●

PW 18 062 01

Replaces:
 Contact: Benito Avalos
 Phone: 575-678-5359

1. Name of Waste: PPE- Waste Water Treatment Plant EffCom Sampling
2. Clin: NR01
3. Generating Process: Environmental Sampling
4. Projected Volume: 7 Lbs Mode of Collection: Pail/Bucket
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
 Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

●RCRA Characteristics●

Physical State:
☒ Solid ☐ Liquid ☐ SemiSolid
☐ Gas ☐ Other

Treatment Group:
☐ Wastewater ☐ Non-Wastewater

☒ Non-RCRA Waste (no other waste codes apply)

☐ Ignitable (D001) Flash Point: N/A
☐ High TOC (>= 10%) ☐ Low TOC (<10%)

☐ Corrosive (D002) pH: N/A

☐ Reactive (D003) ☐ Water Reactive
☐ Cyanide Reactive
☐ Sulfide Reactive

☐ Toxicity Characteristics:

☐ F- Listed Waste:

☐ P - Listed Waste:

☐ U - Listed Waste:

●Chemical/Material Composition●

Component	Concentration/Range
Barium	0.0528 mg/L

●Shipping Information●

DOT Hazardous Material? ☐ Yes ☒ No

Shipping Name:
 Non-Regulated

Waste Codes: Non-Regulated

Hazard Class: UN or NA No.: PG:

CERCLA Reportable Qty (RQ):

2008 Emergency Response Guidebook EM Resp No.:

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☐ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
 See Lancaster Lab ID: WW9435670

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
 Jon Edward Harrison

Signature
 HARRISON.JON.EDWARD.14085
 95882

Date
 01-Mar-18

Analysis Report

2018-04-10 10:15:00, C:\Users\j\Documents\18-04-10 10:15:00 - 18-04-10 10:15:00 - 18-04-10 10:15:00

North Wind, Inc.
ELLE Sample #: WW 9435670
ELLE Group #: 1903762
Matrix: Water

Sample Description: MPWWTP-EffCom-0118-WC Composite Water
Project Name: Wastewater 20033.014 WSWR

Submital Date/Time: 02/01/2018 10:15
Collection Date/Time: 01/13/2018 09:30

CAT No.	Analyte Name	CAS Number	Result	Detection Limit*	Limit of Detection	Limit of Quantitation	DF
Metals	00042 Silver	7440-22-4	N.D.	0.00015	mg/L	0.0010	1
	00043 Sodium	7440-23-5	82.2	0.0500	0.100	0.400	1
	00045 Thallium	7440-28-0	N.D.	0.00012	0.00025	0.0010	1
	00048 Vanadium	7440-82-2	0.0050	0.00021	0.00050	0.0010	1
	00049 Zinc	7440-66-6	0.0857	0.0039	0.0075	0.0300	1
00209 Mercury	SW-946 7470A	7439-97-6	N.D.	mg/L	0.00010	0.00020	1
Wet Chemistry	EPA 170.1	n.a.	Degrees C	Degrees C	Degrees C	Degrees C	1
	12151 Temperature of pH	n.a.	20.9	0.010	0.010	0.010	1
00430 Fish Point	SW-946 1010A	n.a.	Degrees F	Degrees F	Degrees F	Degrees F	1
			No Fish Observed	50	50	50	
12102 pH	SW-946 9040C	n.a.	Std. Units	Std. Units	Std. Units	Std. Units	1
			7.5	0.010	0.010	0.010	

No fish observed below 100°F.
Test Name extinguished at 100°F.
Fish point was determined using Pinsky Markers closed cup apparatus.

Sample Comments

PA DEP Lab Certification ID 38-00037, Expiration Date: 12/31/18.

All OCs are compliant unless otherwise noted. Please refer to the Quality Control Summary for overall OC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analyte Name	Method	Trials	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02060	VOCs 8200B	SW-946 8200B 25mL purge	1	118041AA	02/13/2018 12:03	Kevin A Spicillo	1
01483	GC/MS VOCs Water Prep	SW-946 5030B	1	118041AA	02/13/2018 12:03	Kevin A Spicillo	1
14241	RNOCs 8270D	SW-946 8270D	1	18037HAA028	02/13/2018 18:30	Edward C Montborne	1
11010	8270D BNA Extraction	SW-946 3510C	1	18037HAA028	02/09/2018 16:30	Chester R Sanchez	1
08023	Aluminum	SW-946 8020A	1	180371063901A	02/12/2018 08:14	Choon Y Kim	1
08024	Antimony	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1
08025	Arsenic	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1
08026	Barium	SW-946 8020A	1	180371063901A	02/09/2018 14:33	Patrick J Engle	1
08027	Beryllium	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1
08028	Cadmium	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1
08029	Calcium	SW-946 8020A	1	180371063901A	02/10/2018 14:33	Patrick J Engle	1
08031	Chromium	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1
08032	Cobalt	SW-946 8020A	1	180371063901A	02/09/2018 22:23	Patrick J Engle	1

*This limit was used in the evaluation of the final result.

HAZARDOUS WASTE PROFILE SHEET

Part 1

●Generator●		●Waste Profile●	
Name: US Army, WSMR	Organization: Materiel Test Directorate	MT	17 152 01
Address: 100 Headquarters Ave. WSMR, NM 88002	SMR/GTO	Replaces: MT 16 168 04	
US EPA ID: NM2750211235	Bldg. Number: 2780	Contact: Allen Tyree	
State ID: N/A	SAP ID: 2780C	Phone: 575-678-4773	
DODAAC: WM0M58			

1. Name of Waste: Used Water Filters from GTO Wash Rack
2. Clin: 9904
3. Generating Process: Wash Rack Maintenance
4. Projected Volume: >500 lbs. Mode of Collection: Drum
5. Comments:
6. Is this waste a dioxin listed waste as defined in 40 CFR 261.31? ☐ Yes ☒ No
7. Is this waste restricted from Land Disposal? ☐ Yes ☒ No Has an exemption been granted? ☐ Yes ☒ No
Does waste meet applicable treatment standards already? ☒ Yes ☐ No

Part 2

●RCRA Characteristics●		●Chemical/Material Composition●	
Physical State:		Component	Concentration/Range
☒ Solid ☐ Liquid ☐ SemiSolid		Arsenic	0.150 mg/L
☐ Gas ☐ Other		Barium	0.0913 mg/L
Treatment Group:		Cadmium	0.518 mg/L
☐ Wastewater ☐ Non-Wastewater		Selenium	0.164 mg/L
☒ Non-RCRA Waste (no other waste codes apply)		Benzoic Acid	0.13 mg/L
☐ Ignitable (D001) Flash Point:		Diethyl Phthalate	0.081 mg/L
☐ High TOC (>= 10%) ☐ Low TOC (<10%)		D-n-butyl Phthalate	0.019 mg/L
☐ Corrosive (D002) pH:		Total Petroleum Hydrocarbons	2,990 mg/kg
☐ Reactive (D003) ☐ Water Reactive			
☐ Cyanide Reactive			
☐ Sulfide Reactive			
☐ Toxicity Characteristics:		●Shipping Information●	
☐ F- Listed Waste:		DOT Hazardous Material? ☐ Yes ☒ No	
☐ P - Listed Waste:		Shipping Name: Non-Regulated	
☐ U - Listed Waste:		Waste Codes: Non-Regulated	
		Hazard Class: UN or NA No.: PG:	
		CERCLA Reportable Qty (RQ):	
		2008 Emergency Response Guidebook EM Resp No.:	

Part 3

●Basis for Information●

☒ Chemical Analysis (attach test results) ☐ MSDS(attach MSDS) ☒ User Knowledge (attach supporting documents)

Laboratory Identification Number(s) / MSDS Date and Manufacture Info / User Knowledge document:
See attached WSMR Chemistry Lab ID 1106009-002 and memo from James Fernandez.

●Generator Certification●

I hereby certify that all information submitted in this, and all attached documents is, to the best of my knowledge, an accurate representation of the waste turned in to the DRMO. All known or suspected hazards have been disclosed.

WSMR HWMC Representative Name
Jon Edward Harrison

Signature
HARRISON.JON.EDWARD.14085
95882

Date
01-Jun-17

HWMCNovember2010

MT 16 168 04 WSMR 16 168 04 2780C

MEMO

To: Hazardous Waste Management Center (Building 1870)
White Sands Missile Range, NM 80002

From: James Fernandez, SAP Manager, MT

Subject: Annual profile evaluation for SAP 2780-C

This memo is to inform you that our current waste profile for satellite accumulation point, SAP 2780-C, Used Water Filters from GTO Wash Rack, is about to exceed the required annual limit (365 days).

At this time we are requesting that our current waste profile (Profile # MT 16 168 04) be extended for an additional year. I certify, to the best of my knowledge, that our products, chemicals, and processes used in generating the waste stream are consistent with those of the prior year. I understand that if the products, chemicals, and/or processes have changed the waste must be analyzed prior to developing a new waste profile.

Printed name: James Fernandez

Signature:

FERNANDEZ.JA

MES.A.1231007

390

Date: 15 May 2017

Digitally signed by FERNANDEZ.JAMES.A.1231007390
DN: c=US, o=U.S. Government, ou=DoD, ou=PR, ou=USA,
cn=FERNANDEZ.JAMES.A.1231007390
Date: 2017.05.15 13:06:17 -0600

LABORATORY ANALYTICAL REPORT

CLIENT: Materiel Test Directorate

Date: 18-Jul-11

Lab Order: 1106009

Project:

Client Sample ID: 20110286

Collection Date: 6/23/2011 8:50:00 AM

Lab ID: 1106009-002

Date Received: 6/23/2011

Matrix: WASTE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY, TCLP						
		SW7470				Analyst: MRR
Mercury	ND	0.00250		mg/L	1	6/28/2011 2:02:41 PM
ICP METALS, TCLP						
		SW1311/6010B				Analyst: EAG
Arsenic	0.150	0.100		mg/L	1	6/30/2011 2:49:04 PM
Barium	0.0913	0.0400		mg/L	1	6/30/2011 2:49:04 PM
Cadmium	0.518	0.100		mg/L	1	6/30/2011 2:49:04 PM
Chromium	ND	0.100		mg/L	1	6/30/2011 2:49:04 PM
Lead	ND	0.100		mg/L	1	6/30/2011 2:49:04 PM
Selenium	0.164	0.100		mg/L	1	6/30/2011 2:49:04 PM
Silver	ND	0.0400		mg/L	1	6/30/2011 2:49:04 PM
SEMIVOLATILE ORGANIC COMPOUNDS, TCLP						
		SW8270C				Analyst: AF
1,2,4-Trichlorobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
1,2-Dichlorobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
1,3-Dichlorobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
1,4-Dichlorobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
1-Methylnaphthalene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
2,4,5-Trichlorophenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2,4,6-Trichlorophenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2,4-Dichlorophenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2,4-Dimethylphenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2,4-Dinitrophenol	ND	0.060	M	mg/L	4	6/28/2011 9:24:28 PM
2,4-Dinitrotoluene	ND	0.040		mg/L	4	6/28/2011 9:24:28 PM
2,6-Dinitrotoluene	ND	0.040		mg/L	4	6/28/2011 9:24:28 PM
2-Chloronaphthalene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
2-Chlorophenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2-Methylnaphthalene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
2-Methylphenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
2-Nitroaniline	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
2-Nitrophenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
3/4-Methylphenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
3-Nitroaniline	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
4,6-dinitro-2-methylphenol	ND	0.060		mg/L	4	6/28/2011 9:24:28 PM
4-Bromophenyl phenyl ether	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
4-Chloro-3-methylphenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
4-Chloroaniline	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
4-Chlorophenyl phenyl ether	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
4-Nitroaniline	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
4-Nitrophenol	ND	0.060		mg/L	4	6/28/2011 9:24:28 PM
Acenaphthene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- DF Dilution Factor
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: Materiel Test Directorate

Date: 18-Jul-11

Lab Order: 1106009

Project:

Client Sample ID: 20110286

Collection Date: 6/23/2011 8:50:00 AM

Lab ID: 1106009-002

Date Received: 6/23/2011

Matrix: WASTE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS, TCLP		SW8270C	(SW3510)	Analyst: AF		
Acenaphthylene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Aniline	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Anthracene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Azobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benz(a)anthracene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benzo(a)pyrene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benzo(b)fluoranthene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benzo(g,h,i)perylene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benzo(k)fluoranthene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Benzoic acid	0.13	0.040		mg/L	4	6/28/2011 9:24:28 PM
Benzyl alcohol	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Bis(2-chloroethoxy)methane	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Bis(2-chloroethyl)ether	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Bis(2-chloroisopropyl)ether	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Bis(2-ethylhexyl)phthalate	ND	0.040		mg/L	4	6/28/2011 9:24:28 PM
Butyl benzyl phthalate	ND	0.040		mg/L	4	6/28/2011 9:24:28 PM
Carbazole	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Chrysene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Dibenz(a,h)anthracene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Dibenzofuran	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Diethyl phthalate	0.081	0.016		mg/L	4	6/28/2011 9:24:28 PM
Dimethyl phthalate	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Di-n-butyl phthalate	0.019	0.016		mg/L	4	6/28/2011 9:24:28 PM
Di-n-octyl phthalate	ND	0.080		mg/L	4	6/28/2011 9:24:28 PM
Diphenylamine	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Fluoranthene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Fluorene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Hexachlorobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Hexachlorobutadiene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Hexachlorocyclopentadiene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Hexachloroethane	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Indeno(1,2,3-cd)pyrene	ND	0.040		mg/L	4	6/28/2011 9:24:28 PM
Isophorone	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Naphthalene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Nitrobenzene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
N-Nitrosodimethylamine	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
N-Nitrosodi-n-propylamine	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Pentachlorophenol	ND	0.060		mg/L	4	6/28/2011 9:24:28 PM
Phenanthrene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Phenol	ND	0.024		mg/L	4	6/28/2011 9:24:28 PM
Pyrene	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM
Pyridine	ND	0.016		mg/L	4	6/28/2011 9:24:28 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- DF Dilution Factor
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: Materiel Test Directorate

Date: 18-Jul-11

Lab Order: 1106009

Project:

Client Sample ID: 20110286

Collection Date: 6/23/2011 8:50:00 AM

Lab ID: 1106009-002

Date Received: 6/23/2011

Matrix: WASTE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS, TCLP		SW8270C		(SW3510)		Analyst: AF
Surr: 2,4,6-Tribromophenol	178	47.8-135.3	S	%REC	4	6/28/2011 9:24:28 PM
Surr: 2-Fluorobiphenyl	62.4	1-121.8		%REC	4	6/28/2011 9:24:28 PM
Surr: 2-Fluorophenol	33.5	1-82		%REC	4	6/28/2011 9:24:28 PM
Surr: Nitrobenzene-d5	63.2	1-138.3		%REC	4	6/28/2011 9:24:28 PM
Surr: Phenol-d5	20.0	1-52		%REC	4	6/28/2011 9:24:28 PM
Surr: Terphenyl-d14	228	64.7-152.9	S	%REC	4	6/28/2011 9:24:28 PM

NOTES:

S - Outlying surrogate or spike recovery(ies) observed, biased high. LCS exhibited method control.

VOLATILE ORGANIC COMPOUNDS, TCLP		SW8260B		(SW1311)		Analyst: IR
1,1,1,2-Tetrachloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1,1-Trichloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1,2-Trichloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1-Dichloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1-Dichloroethene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,1-Dichloropropene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2,3-Trichloropropane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2,4-Trichlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2,4-Trimethylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2-Dibromoethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2-Dichlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2-Dichloroethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,2-Dichloropropane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,3,5-Trimethylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,3-Dichlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,3-Dichloropropane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
1,4-Dichlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
2,2-Dichloropropane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
2-Butanone	ND	1.0		mg/L	50	6/30/2011 1:43:00 PM
2-Chlorotoluene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
2-Hexanone	ND	1.0		mg/L	50	6/30/2011 1:43:00 PM
4-Chlorotoluene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
4-Isopropyltoluene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
4-Methyl-2-pentanone	ND	1.0		mg/L	50	6/30/2011 1:43:00 PM
Acetone	ND	1.0		mg/L	50	6/30/2011 1:43:00 PM
Benzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Bromobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Bromochloromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Bromodichloromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Bromoform	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	DF	Dilution Factor	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

LABORATORY ANALYTICAL REPORT

CLIENT: Materiel Test Directorate
 Lab Order: 1106009
 Client Sample ID: 20110286
 Lab ID: 1106009-002

Date: 18-Jul-11
 Project:
 Collection Date: 6/23/2011 8:50:00 AM
 Date Received: 6/23/2011
 Matrix: WASTE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS, TCLP		SW8260B	(SW1311)	Analyst: IR		
Carbon tetrachloride	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Chlorobenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Chloroform	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Chloromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
cis-1,2-Dichloroethene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
cis-1,3-Dichloropropene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Dibromochloromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Dibromomethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Dichlorodifluoromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Ethylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Hexachlorobutadiene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Isopropylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
m,p-Xylene	ND	0.20		mg/L	50	6/30/2011 1:43:00 PM
Methylene chloride	ND	0.50		mg/L	50	6/30/2011 1:43:00 PM
Naphthalene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
n-Butylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
n-Propylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
o-Xylene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
sec-Butylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Styrene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
tert-Butylbenzene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Tetrachloroethene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Toluene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
trans-1,2-Dichloroethene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
trans-1,3-Dichloropropene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Trichloroethene	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Trichlorofluoromethane	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Vinyl chloride	ND	0.10		mg/L	50	6/30/2011 1:43:00 PM
Xylenes, Total	ND	0		mg/L	50	6/30/2011 1:43:00 PM
Surr: 4-Bromofluorobenzene	94.1	70-130		%REC	50	6/30/2011 1:43:00 PM
Surr: Dibromofluoromethane	95.4	70-130		%REC	50	6/30/2011 1:43:00 PM
Surr: Toluene-d8	99.5	70-130		%REC	50	6/30/2011 1:43:00 PM

NOTES:

The MS & MSD for this batch were performed on this sample. Outliers were observed. LCS exhibited method control.

TOTAL PETROLEUM HYDROCARBONS, EXT.	E418.1	(E418.1)	Analyst: IR		
Petroleum Hydrocarbons, TR	2990.0	0.50000	mg/Kg	1	7/7/2011 1:42:06 PM

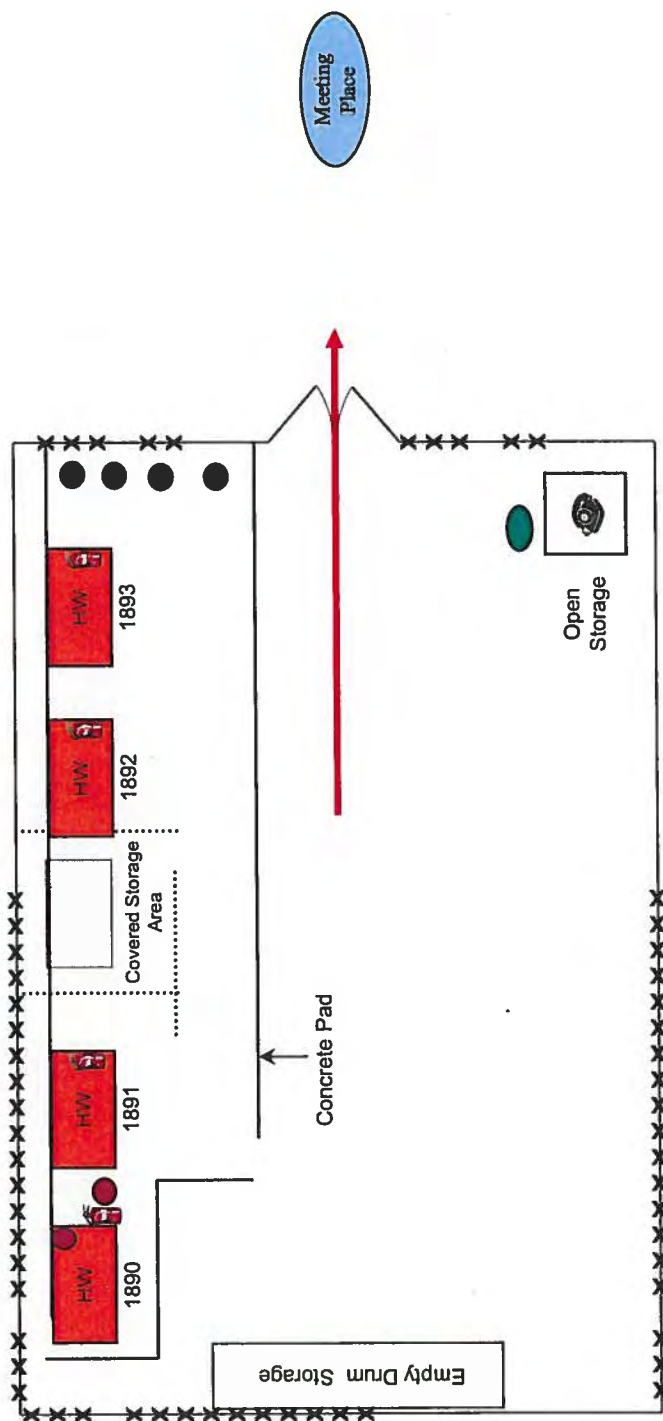
NOTES:

~ The laboratory is not approved by NELAC for this method.

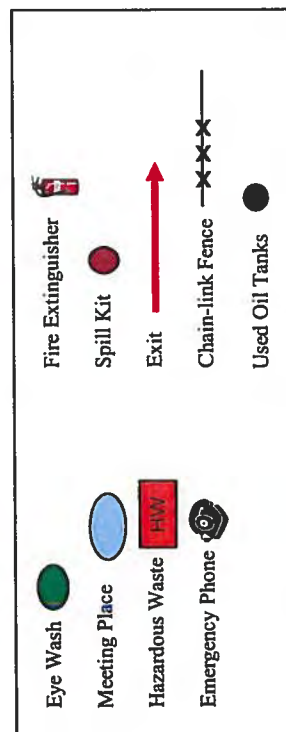
Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	DF	Dilution Factor	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

SPIII, EVACUATION & EMERGENCY PLAN

IN CASE OF HAZMAT EMERGENCY: (HAZMAT, SPILLS, EXPLOSION, FIRE)



Approved for public release, limited distribution to
EPA/NMED, OPSEC Reviewed 3 APR 2018



CONTACT:

EMERGENCY (FIRE/MEDICAL/POLICE): 911
ENVIRONMENTAL OFFICER James Lopez 575-678-1917
FACILITY MANAGER Raymond Duran 575-678-4641
ALTERNATE FACILITY MANAGER Jon Harrison 575-678-2081

SPIII PLAN AND IMMEDIATE ACTION PROCEDURES

WARNING: Spill will always be approached from upwind where possible. Avoid physical contact with spilled chemicals/petroleum products.

1. PROTECT YOURSELF AND OTHER FROM HARM

• Evacuate the premises if necessary. • Use appropriate clothing. • Remove other sources of potential ignition.

2. STOP THE FLOW IF POSSIBLE (ONLY IF IT CAN BE DONE SAFELY)

• Close the valve. • Turn a ruptured or punctured container so the point of exit is up. • Place the leaking container in another container (over-pack drum).

3. CALL 911 TO NOTIFY THE FIRE DEPARTMENT, AND THEN THE ACTIVITY CHAIN OF COMMAND

• Report spills, any amount of HAZMAT (other than POL) including chemicals and pesticides (FAX to 678-1199)
• Any amount of any other material in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or may unreasonably interfere with public welfare or the use of property. This includes chemical, biohazardous, petroleum-product, and sewage spills and incidents. In addition to recent spills, the discovery of evidence of previous unauthorized discharges, such as contaminated soil of ground water, also must be reported.

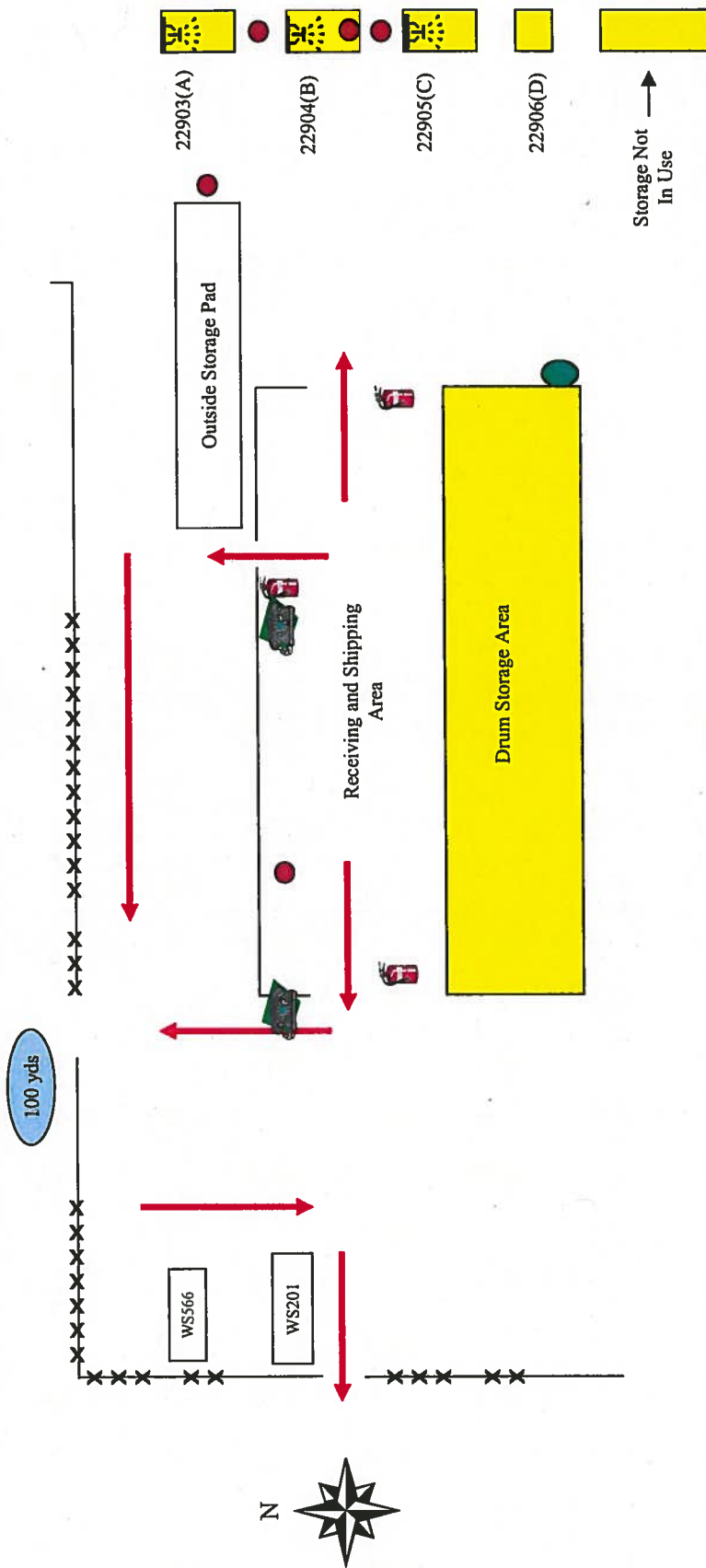
4. CONFINE THE SPILL IF POSSIBLE (ONLY IF IT CAN BE DONE SAFELY)

• Protect floor or storm drains (cover drains with a mat; surround with absorbent material).
• Shovel sand, sawdust, sweeping compound, or place sandbags in path of flow.
• Place sweeping compound, absorbent pillows, pad, or mats to confine the spill.

5. ALL SPILL RESPONSE ACTIONS ARE CONDUCTED BY THE LOCAL WSMR FIRE AND EMERGENCY SERVICES DIVISION, WSMR SECURITY DIRECTORATE AND THE LOCAL HEALTH CLINIC.

SPILL, EVACUATION & EMERGENCY PLAN

IN CASE OF HAZMAT EMERGENCY: (HAZMAT, SPILLS, EXPLOSION, FIRE)



Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

SPILL PLAN AND IMMEDIATE ACTION PROCEDURES

WARNING: Spill will always be approached from upwind where possible. Avoid physical contact with spilled chemicals/petroleum products

1. **PROTECT YOURSELF AND OTHER FROM HARM.**

Evacuate the premises if necessary. Use appropriate clothing. Remove other sources of potential ignition.

2. **STOP THE FLOW IF POSSIBLE (ONLY IF IT CAN BE DONE SAFELY)**

Close the valve. Turn a ruptured or punctured container so the point of exit is up.

Place the leaking container in another container (over-pack drum)

3. **CALL 911 TO NOTIFY THE FIRE DEPARTMENT, AND THEN THE ACTIVITY CHAIN OF COMMAND.**

Report spills, any amount of HAZMAT (other than POL) including chemicals and pesticides (FAX to 678-4028)

Any amount of any other material in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or may unreasonably interfere with public welfare or the use of property. This includes chemical, biohazardous, petroleum-product, and sewage spills and incidents. In addition to recent spills, the discovery of evidence of previous unauthorized discharges, such as contaminated soil of ground water, also must be reported

4. **CONFINE THE SPILL IF POSSIBLE (ONLY IF IT CAN BE DONE SAFELY)**

Protect floor or storm Drains. (cover drains with a mat; surround with absorbent material)

Shovel sand, sawdust, sweeping compound, or place sandbags in path of flow.

Place sweeping compound, absorbent pillows, pad, or mats to confine the spill.

5. **ALL SPILL RESPONSE ACTIONS ARE CONDUCTED BY THE LOCAL WSMR FIRE AND EMERGENCY SERVICES DIVISION, WSMR SECURITY DIRECTORATE AND THE LOCAL HEALTH CLINIC.**

CONTACT:

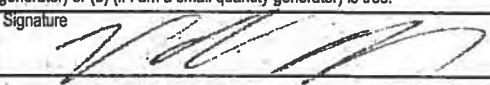
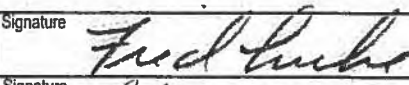
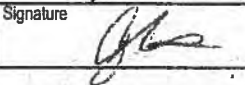
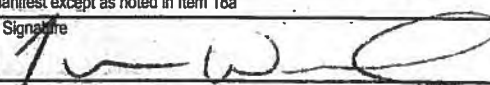
EMERGENCY (FIRE/MEDICAL/POLICE): 911

ENVIRONMENTAL OFFICER James Lopez 575-678-1917

FACILITY MANAGER Raymond Duran 575-678-4641

ALTERNATE FACILITY MANAGER Jon Harrison 575-678-4641

DATE PREPARED: 20 March 2018

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N M 2 7 5 0 2 1 1 2 3 5		2. Page 1 of 1	3. Emergency Response Phone 210-373-3000		4. Manifest Tracking Number 008734257 FLE				
5. Generator's Name and Mailing Address US Army WSMR IMSW-WSM-PW-E-EC WSMR, NM 88002					Generator's Site Address (if different than mailing address) 575 678-1007						
6. Transporter 1 Company Name Englund Equipment Co.					U.S. EPA ID Number A 2 D 9 8 2 4 0 3 5 8 6						
7. Transporter 2 Company Name ENVIRONMENTAL INC.					U.S. EPA ID Number TX2000029215						
8. Designated Facility Name and Site Address Lighting Resources Texas, LLC 101 E. Bowie St. Fort Worth, TX 76110					U.S. EPA ID Number (877) 344-8462 TXD0008029191						
Facility's Phone:											
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
					No.	Type					
X	1. UN2809, Mercury, 8(b 1), PGIII (Universal Waste)				001	DF	00005	P	UNIV		
	2. Fluorescent Bulbs (Universal Waste)				002	CW	00870	P	UNIV		
X	3. KG. NA3077 Hazardous Waste Solid NOS mercury				1	DF	5	P	0009		
	4.										
14. Special Handling Instructions and Additional Information 2x Pallet #624-#41 #630-#3 CIERGNTI (1x2) #624-#32											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name Raymond Duran					Signature 		Month 01			Day 26	Year 17
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____											
17. Transporter Acknowledgment of Receipt of Materials											
Transporter 1 Printed/Typed Name Fred Luke					Signature 		Month 01			Day 26	Year 17
Transporter 2 Printed/Typed Name Jayson Hoon					Signature 		Month 01			Day 27	Year 17
18. Discrepancy											
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection											
18b. Alternate Facility (or Generator) U.S. EPA ID Number											
Facility's Phone:											
18c. Signature of Alternate Facility (or Generator) Month Day Year											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H010		2. H010		3. H010		4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name Trace Ward					Signature 		Month 12			Day 22	Year 17

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N M 2 7 5 0 2 1 1 2 3 5		2. Page 1 of 4	3. Emergency Response Phone 210-373-3000		4. Manifest Tracking Number 008734253 FLE		
5. Generator's Name and Mailing Address US Army WSMR IMSW-WSM-PW-E-EC WSMR, NM 88002					Generator's Site Address (if different than mailing address) 575 678-1007				
6. Generator's Phone:					U.S. EPA ID Number A Z D 9 8 2 4 0 3 5 8 6				
7. Transporter 1 Company Name Englund Equipment Co.					U.S. EPA ID Number				
7. Transporter 2 Company Name					U.S. EPA ID Number				
8. Designated Facility Name and Site Address LWS Alabama, Inc. 402 Webster Chapel Rd. Glencoe, AL 35905					U.S. EPA ID Number (800) 739-9156 A L D 9 8 1 0 2 0 8 9 4				
Facility's Phone:									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Vol.	13. Waste Codes
	X	1. UN1133, Waste Adhesive, 3, PGII			001 DF		00013	P	D001
	X	2. UN1104, Waste Amyl Acetate, 3, PGIII			001 DF		00002	P	D001
	X	3. UN1202, Waste Diesel Fuel, 3, PGIII			001 DF		00038	P	D001
	X	4. UN1219, Waste Isopropanol Mixture, 3, PGII			001 DF		00002	P	D001
14. Special Handling Instructions and Additional Information a) ERG#128 1x6 103745 #4,8 b) ERG#129 1x1 103745 #45 c) ERG#128 1x5 103745 #15 d) ERG#129 1x2 103745 #35 172104									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name Raymond B Duran									
Signature <i>[Signature]</i>									
Month Day Year 01/29/17									
TRANSPORTER	16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:								
	17. Transporter Acknowledgment of Receipt of Materials								
	Transporter 1 Printed/Typed Name Fred Luke								
Signature <i>[Signature]</i>									
Month Day Year 01/26/17									
DESIGNATED FACILITY	18. Discrepancy								
	18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection								
	18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number								
	Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)									
Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. H061 2. H061 3. H061 4. H061									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name Dana Helms									
Signature <i>[Signature]</i>									
Month Day Year 2/1/17									

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number N M 2 7 5 0 2 1 1 2 3 5		22. Page 2 of 4	23. Manifest Tracking Number 000734253 FLE	
24. Generator's Name US Army WSMR IMSW-WSM-PW-E-EC WSMR, FM 88002						
25. Transporter _____ Company Name				U.S. EPA ID Number		
26. Transporter _____ Company Name				U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No. Type		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
X	5) RQ, UN1203, Waste Gasoline, 3, PGII, (D001, D018)	001	DM	00377	P	D001 D018
X	6) RQ, UN1203, Waste Gasoline, 3, PGII, (D018) D001	001	DM	00043	P	D001 D018
X	7) RQ, UN1760, Waste Corrosive Liquid n.o.s., (Water, Nitric Acid), 3, PGII, (D002)	005	DF	01750	P	D002
X	8) RQ, UN1789, Waste Hydrochloric Acid Solution, 8, PGIII, (D004) D002	001	DF	00038	P	D002 D004
X	9) UN3264, Waste Corrosive Liquid, Acidic, Inorganic, n.o.s., (Methylene Chloride, Acetone), 8, PGII	001	DF	00038	P	D002 D039 F003 F005
X	10) RQ, NA3077, Hazardous Waste Solid n.o.s., 9, PGIII, (D006, D007) F003, F005	001	DM	00144	P	D006 D007 F003 F005
X	11) RQ, NA3077, Hazardous Waste Solid n.o.s., 9, PGIII, (D008)	001		00068	P	D008
X	12) NA3082, Hazardous Waste Liquid n.o.s., (D019, D039, F002, F003) 9, PGIII	001	DF	00018	P	D019 D039 F002 F003
X	13) NA3077, Hazardous Waste Solid n.o.s., (D035, F003, F005), 9, PGIII	001	DM	00114	P	D035 F003 F005
THIS LINE INTENTIONALLY LEFT BLANK						
32. Special Handling Instructions and Additional Information a) ERG#128 1x55 103745 #30 b) ERG#128 1x5 103745 #40 c) ERG#154 3x25 #33 d) ERG#157 1x6 103747 #36 e) ERG#154 1x5 104081 #12 f) ERG#171 1x55 103760 #28 g) ERG#171 1x30 95506 #1,20 h) ERG#171 1x5 103746 #9 i) ERG#171 1x55 103760 #31						
33. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
34. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
35. Discrepancy						
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) H061 H061 H061 H141 H141 H141 H141 H141						

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number NM 2 7 5 0 2 1 1 2 3 5		22. Page 3 of 4		23. Manifest Tracking Number 008734253 FLE	
24. Generator's Name US Army WSMR IMSW-WSM-PW-E-EC WSMR, NM 88002							
25. Transporter _____ Company Name						U.S. EPA ID Number	
26. Transporter _____ Company Name						U.S. EPA ID Number	
GENERATOR	27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No. Type		29. Total Quantity	30. Unit Wt/Vol	31. Waste Codes
	X	15) NA3077, Hazardous Waste Solid n.o.s., (F002), 9, PGIII	001	DM	00056	P	F002
	X	16) NA3082, Hazardous Waste liquid n.o.s. (F003), 9, PGIII	001	DF	00009	P	F003
	X	17) NA3077, Hazardous Waste Solid n.o.s., (F003), 9, PGIII	001	DM	00084	P	F003
	X	18) NA3077, Hazardous Waste Solid n.o.s., (F003, F005), 9, PGIII	001	DF	00043	P	F003 F005
		19) Non RCRA / Non Hazardous Substance (Adhesives)	001	DF	00021	P	N/H
		20) Non RCRA / Non Hazardous Substance (Carbon Canisters)	001	CW	00370	P	N/H
		21) Non RCRA / Non Hazardous Substance (Dacon Gel)	001	DF	00018	P	N/H
		22) Non RCRA / Non Hazardous Substance (Lane Cleaner)	001	DF	00112	P	N/H
		23) Non RCRA / Non Hazardous Substance (Solids)	001	DM	00081	P	N/H
THIS LINE INTENTIONALLY LEFT BLANK							
32. Special Handling Instructions and Additional Information a) ERG#171 1x30 103760 #21 b) ERG#171 1x2 103746 #26 c) ERG#171 1x30 103760 #38 d) ERG#171 1x5 103760 #37,46 e) 1x5 103749 #2 f) 1xPallet 103749 #23 g) 1x5 103749 #10 h) 1x15 103749 #3 i) 1x30 103749 #18							
TRANSPORTER	33. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
	34. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
DESIGNATED FACILITY	35. Discrepancy _____						
	36. Hazardous Waste Report Management Method Codes (Use codes for hazardous waste treatment, disposal, and recycling systems) H141 H141 H141 H141 H141 H141 H141 H141 H141 H141						

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number N M 2 7 5 0 2 1 1 2 3 5		22. Page 4 of 4	23. Manifest Tracking Number 008734253 FLE	
24. Generator's Name US Army WSMR IMBW-WSM-EW-E-EC WSMR, NM 88002						
25. Transporter _____ Company Name					U.S. EPA ID Number	
26. Transporter _____ Company Name					U.S. EPA ID Number	
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No. Type		29. Total Quantity	30. Unit WL/Vol.	31. Waste Codes
	25) Non RCRA / Non Hazardous Substance (Oily Rags)	003	DM	00309	P	N/H
	26) Non RCRA / Non Hazardous Substance (Soil with Amfrreeze)	001	DM	00149	P	N/H
	27) Non RCRA / Non Hazardous Substance (Soil with JF8)	004	DM	01828	P	N/H
	28) Non RCRA / Non Hazardous Substance (Liquids)	001	DF	00016	P	N/H
	29) NA1350, Sulfur, 9, PGIII	001	DM	00098	P	N/H
	30) Non RCRA / Non Hazardous Substance (Used PPE)	001	DF	00013	P	N/H
	31) Non RCRA / Non Hazardous Substance (Deionized Water with Red Fuming Nitric Acid)	005	DF	01750	P	N/H
	THIS LINE INTENTIONALLY LEFT BLANK					
32. Special Handling Instructions and Additional Information a) 1x55, 1x30 103749 #13, 17, 25, 34 b) 1x30 103749 #44 c) 1x30, 3x55 103749 #19, 42 d) 1x6 103749 #16 e) 1x30 103749 #29 f) 1x5 103749 #7, 24 g) 6x55 103749 #23						
33. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
34. Transporter _____ Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____						
35. Discrepancy _____						
36. Hazardous Waste Report Management Method Codes (Use codes for hazardous waste treatment, disposal, and recycling systems) H141 H141 H141 H141 H141						

NOTIFICATION OF WASTE RESTRICTION FROM LAND DISPOSAL

GENERATOR: US Army WSMR	ADDRESS: IMSW-WSM-PW-E-EC
EPA ID #: NM2750211235	WSMR, NM. 88002
MANIFEST #: 008734253FLE	SP450012D0001 Delivery Order # 624

LAND DISPOSAL RESTRICTION TABLE

PG. 1	Waste Stream	EPA Codes	Subcategory	Requires Treatment	F-codes	UHC's	NWW/WW
1	103745	D001	High TOC Ignitable	Y			NWW
2	103745	D001	High TOC Ignitable	Y			NWW
3	103745	D001	High TOC Ignitable	Y			NWW
4	103745	D001	High TOC Ignitable	Y			NWW
PG. 2	Waste Stream	EPA Codes	Subcategory	Requires Treatment	F-codes	UHC's	NWW/WW
5	103745	D001 D018	High TOC Ignitable	Y			NWW
6	103745	D001 D018	High TOC Ignitable	Y			NWW
7		D002	Corrosive Waste	Y			NWW
8	103747	D002 D004	Corrosive Waste	Y			NWW
9	104081	D002 D039 F003 F005	Corrosive Waste	Y	5,20,26,32	231,232,234,235,239,243,244	NWW
10	103760	D006 D007 F003 F005		Y	5,26,21	232,239,243,244,198	NWW
11	95506	D008		Y		232,116,198,241	NWW
12	103746	D019 D039 F002 F003		Y	5,9,25		NWW
13	103760	D035 F003 F005		Y	21,22,16,32,26	232,235,243,244,241	NWW
14							
PG. 3	Waste Stream	EPA Codes	Subcategory	Requires Treatment	F-codes	UHC's	NWW/WW
15	103760	F002		Y	25	231,232,234,239,243,120,116	NWW
16	103746	F003		Y	5		NWW
17	103760	F003		Y	5	232,234,235,239,115,198,114	NWW
18	103760	F003 F005		Y	21,22,5,16,26,32	231,232,234,239,243	NWW
19							
20							
21							
22							
23							
24							

CERTIFICATION:

I HERBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ASSOCIATED DOCUMENTS IS COMPLETE AND IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND INFORMATION.



Environmental Engineer
Raymond Duran
TITLE

01/29/17
DATE

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number N M 2 7 5 0 2 1 1 2 3 5	22. Page 2 of 3	23. Manifest Tracking Number 010663500 FLE	
24. Generator's Name US Army WSMR DSW-WSM-PW-E-EC WSMR, NM 88002					
25. Transporter _____ Company Name				U.S. EPA ID Number	
26. Transporter _____ Company Name				U.S. EPA ID Number	
27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No. Type		29. Total Quantity	30. Unit Wt./Vol.
					31. Waste Codes
X	5) NA3077, Hazardous Waste Solid n.o.s., (Warfarin), 9, PGIII	001	DF	00010	P 0075
	6) Non RCRA / Non Hazardous Substance (Absorbents)	001	DM	00535	P N/H
	7) Non RCRA / Non Hazardous Substance (Absorbents with Oil)	001	DF	00004	P N/H
	8) Non RCRA / Non Hazardous Substance (Grease / Rags)	001	DF	00006	P N/H
	9) Non RCRA / Non Hazardous Substance (Missile Leakage Sample)	001	DF	00005	P N/H
	10) Non RCRA / Non Hazardous Substance (Oily Debris)	005	DM	00652	P N/H
	11) Non RCRA / Non Hazardous Substance (Pads with Oil)	001	DF	00130	P N/H
	12) Non RCRA / Non Hazardous Substance (Paint / Adhesive Material)	001	DM	00089	P N/H
	13) Non RCRA / Non Hazardous Substance (Respirator Filters)	001	DM	00016	P N/H
	THIS LINE INTENTIONALLY LEFT BLANK				
32. Special Handling Instructions and Additional Information a) ERG#171 1x5 NMLF11 #31,32 b) 1x55 NMNR01 #18 c) 1x1 NMNR01 #76 d) 1x6 NMNR01 #24 e) 1x3 NMNR01 #23 f) 1x30,4x55 NMNR01 #26,71,72,74,78 g) 1x55 NMNR01 #49 h) 1x55 NMNR01 #73 i) 1x10 NMNR01 #25					
33. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____					
34. Transporter Acknowledgment of Receipt of Materials Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____					
35. Discrepancy _____					
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

NA	Q4	7-Feb-18	Corralitos Landfill Gas Closure	SWIN-071306	Rhino Environmental Services Inc.	TXR0000079284	TXR0000079284	21-Feb-18	25-Feb-18	8-Mar-18	13-Mar-18	6-Mar-18	13-Mar-18
SK	SK	22-Feb-17	Safety-Kleen Systems, Inc., Midland TX	TXD081056690	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	22-Feb-17	1-Jul-17	1-Jul-17	23-Feb-17	23-Feb-17	23-Feb-17
637	SK	22-Feb-17	Clean Earth of Alabama Glencoe, AL	ALD981020864	Englund Equipment Co.	AZD9824035586	AZD9824035586	8-Mar-17	1-Jul-17	1-Jul-17	23-Mar-17	23-Mar-17	4-Apr-17
637	DIA	22-Feb-17	Phillys Reclamation Services, Houston TX	TXD071963358	Englund Equipment Co.	AZD9824035586	AZD9824035586	22-Feb-17	15-Mar-17	22-Mar-17	26-Mar-17	26-Mar-17	4-Apr-17
637	DIA	22-Feb-17	Phillys Reclamation Services, Houston TX	TXD071963358	Englund Equipment Co.	AZD9824035586	AZD9824035586	22-Feb-17	15-Mar-17	22-Mar-17	26-Mar-17	26-Mar-17	20-Mar-17
SK	SK	8-Mar-17	Safety-Kleen Systems, Inc., Midland TX	TXD081056690	Clean Harbors Environmental Services	TXR0000081205	TXR0000081205	12-Apr-17	19-Apr-17	26-Apr-17	3-May-17	24-May-17	24-May-17
SK	SK	29-Mar-17	Safety-Kleen Systems, Inc., Albuquerque, NM	MADO36322250	Englund Equipment Co.	AZD9824035586	AZD9824035586	17-Apr-17	24-Apr-17	1-May-17	6-May-17	6-May-17	4-May-17
651	SK	3-Apr-17	Clean Earth of Alabama Glencoe, AL	ALD981020864	Englund Equipment Co.	AZD9824035586	AZD9824035586	17-Apr-17	24-Apr-17	1-May-17	6-May-17	6-May-17	18-Apr-17
651	SK	3-Apr-17	Lighting Resources Fort Worth TX	TXD080429191	Englund Equipment Co.	AZD9824035586	AZD9824035586	20-Apr-17	27-Apr-17	4-May-17	11-May-17	11-May-17	18-Apr-17
SK	SK	6-Apr-17	Safety-Kleen Systems, Inc., Midland TX	TXD081056690	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	26-Apr-17	3-May-17	10-May-17	17-May-17	17-May-17	23-May-17
643	DIA	12-Apr-17	Rhino Environmental Services Inc	TXD081056690	Chemical Transportation Inc	TXR0000033175	TXR0000033175	27-Apr-17	4-May-17	11-May-17	18-May-17	18-May-17	23-May-17
654	DIA	13-Apr-17	Rhino Environmental Services Inc	TXD081056690	Chemical Transportation Inc	TXR0000033175	TXR0000033175	27-Apr-17	11-May-17	18-May-17	25-May-17	25-May-17	31-May-17
663	DIA	20-Apr-17	SECT Oil and Coal LLC, El Paso TX	AZT000814602	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	4-May-17	11-May-17	18-May-17	25-May-17	25-May-17	31-May-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	3-Jun-17
SK	SK	22-Apr-17	Safety-Kleen Systems, Inc., El Paso TX	TXR0000077693	Safety-Kleen Systems, Inc.	TXR0000077693	TXR0000077693	6-May-17	13-May-17	20-May-17	27-May-17	27-May-17	

008734182FLE	574	DLA	3-Oct-2016	Philips Reclamations Services, Houston TX	(713) 874-2406	TXD074196338	Enviroclean	TXR0000029215	Englund Equipment Co.	AZD982403596	17-Oct-16	24-Oct-16	7-Nov-16	24-Oct-16
100316-06	N/A	N/A	4-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			18-Oct-16	25-Oct-16	8-Nov-16	02-Nov-16
100316-07	N/A	N/A	4-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			18-Oct-16	25-Oct-16	8-Nov-16	02-Nov-16
100316-08	N/A	N/A	4-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			18-Oct-16	25-Oct-16	8-Nov-16	02-Nov-16
100316-09	N/A	N/A	4-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			18-Oct-16	25-Oct-16	8-Nov-16	02-Nov-16
100516-01	N/A	N/A	5-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			19-Oct-16	26-Oct-16	9-Nov-16	02-Nov-16
100516-02	N/A	N/A	5-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			19-Oct-16	26-Oct-16	9-Nov-16	02-Nov-16
100516-03	N/A	N/A	5-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			19-Oct-16	26-Oct-16	9-Nov-16	02-Nov-16
100616-01	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
100616-02	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
100616-03	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
100616-04	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
100616-05	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
100616-06	N/A	N/A	6-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	US Bulk Transport Inc	PAD987347515			20-Oct-16	27-Oct-16	10-Nov-16	02-Nov-16
005334855KXS	SK	SK	6-Oct-2016	Safety-Kleen Systems, Inc., Midland TX	(432) 563-2305	TXD981056960	Safety-Kleen Systems, Inc.	TXR0000077893	Safety-Kleen Systems, Inc.	TXR0000081205	21-Oct-16	28-Oct-16	11-Nov-16	24-Oct-16
008734190FLE	596	DLA	7-Oct-2016	Managordo NM	(575) 439-4355	NMSVM1091020	Chemical Transportation Inc	TXR0000079296			28-Oct-16	2-Nov-16	9-Nov-16	14-Nov-16
101116-01	NA	NA	12-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	Rhino Environmental Services Inc	TXR0000079296			27-Oct-16	3-Nov-16	10-Nov-16	22-Nov-16
101116-02	NA	NA	13-Oct-2016	Rhino Environmental Services Inc	(800) 762-0241	NMDP10510000	Rhino Environmental Services Inc	TXR0000079296			27-Oct-16	3-Nov-16	10-Nov-16	22-Nov-16
008734199FLE	588	DLA	28-Oct-2016	SET Environmental Inc., Houston, TX	(713) 945-5710	TXD056135388	Englund Equipment Co.	AZD982403596	Enviroclean	TXR0000029215	14-Nov-16	16-Nov-16	30-Nov-16	18-Nov-16
008734204FLE	605	DLA	31-Oct-2016	SET Environmental Inc., Houston, TX	(713) 945-5710	TXD056135388	Englund Equipment Co.	AZD982403596			14-Nov-16	16-Nov-16	30-Nov-16	18-Nov-16
0045700472SKS	NA	NA	9-Nov-2016	Clean Harbors, La Porte TX	(281) 884-5500	TXD982290140	Safety-Kleen Systems, Inc.	TXR0000077893	Safety-Kleen Systems, Inc.	TXR0000081205	23-Nov-16	30-Nov-16	7-Dec-16	14-Dec-16
005473744SKS	NA	NA	9-Nov-2016	Safety-Kleen Systems, Inc., Midland TX	(432) 563-2305	TXD081056960	Safety-Kleen Systems, Inc.	TXR0000077893	Safety-Kleen Systems, Inc.	TXR0000081205	23-Nov-16	30-Nov-16	7-Dec-16	14-Dec-16
008734233FLE	607	DLA	28-Nov-2016	US Ecology Texas, Robstown TX	(361) 387-3518	TXD069452340	Englund Equipment Co.	AZD982403596	Enviroclean	TXR0000029215	12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
008734239FLE	607	DLA	28-Nov-2016	Philips Reclamations Services, Houston TX	(713) 874-2406	TXD074196338	Englund Equipment Co.	AZD982403596			12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
008734239FLE	607	DLA	28-Nov-2016	Lighting Resources Fort Worth TX	(877) 344-8468	TXD008028191	Englund Equipment Co.	AZD982403596			12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
008734239FLE	607	DLA	28-Nov-2016	EWS Alabama, Giamco AL	(800) 739-4150	ALD981029864	Englund Equipment Co.	AZD982403596			12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
008734239FLE	611	DLA	28-Nov-2016	SCR Oil and Fuel LLC	(432) 563-2305	TXD081056960	Chemical Transportation Inc	AZT0500100008			12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
008734239FLE	611	DLA	28-Nov-2016	SCR Oil and Fuel LLC	(432) 563-2305	TXD081056960	Chemical Transportation Inc	AZT0500100008			12-Dec-16	19-Dec-16	28-Dec-16	2-Jan-17
005334594SKS	NA	NA	1-Dec-2016	Safety-Kleen Systems, Inc., Midland TX	(432) 563-2305	TXD081056960	Safety-Kleen Systems, Inc.	TXR0000077893	Safety-Kleen Systems, Inc.	TXR0000081205	15-Dec-16	22-Dec-16	29-Dec-16	5-Jan-17
008734247FLE	613/104	DLA	15-Dec-2016	SRC Oil and Fuel Glendale, AZ	(602) 819-6329	AZT000614602	Chemical Transportation Inc	TXR0000033175			24-Dec-16	5-Jan-17	12-Jan-17	17-Jan-17
008734250FLE	619	DLA	22-Dec-2016	SRC Oil and Fuel Glendale, AZ	(602) 819-6329	AZT000614602	Chemical Transportation Inc	TXR0000033175			5-Jan-17	12-Jan-17	19-Jan-17	28-Jan-17

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

Appendix B Mutual Aid Agreements



REPLY TO
ATTENTION OF

STEW-S-NRES-F (5-8a)

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY WHITE SANDS MISSILE RANGE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002

MEMORANDUM OF AGREEMENT
BETWEEN
THE SECRETARY OF THE ARMY
BY
U.S. ARMY WHITE SANDS MISSILE RANGE
AND
N.A.S.A. WHITE SANDS TEST FACILITY

SUBJECT: Mutual Assistance Fighting Fires and Responding to Medical Emergencies

1. References:
 - a. 42 USC § 1856a, Authority to Enter into Reciprocal Agreement.
 - b. DODI 6055.6, DOD Fire Protection Program (15 Dec 94).
 - c. AR 420-90, Fire Protection (10 Sep 97).
2. Purpose: To agree upon terms of mutual assistance in fighting fires and responding to medical emergencies.
3. Definitions:
 - a. Requesting department is the department requesting aid.
 - b. Assisting department is the department providing aid.
4. Agreement: U.S. Army White Sands Missile Range (WSMR) and N.A.S.A. White Sands Test Facility (WSTF), collectively, The Parties, agree as follows:
 - a. The requesting department will request assistance through its fire chief or authorized subordinates designated in writing in advance to the assisting department.
 - b. When called the assisting department will assist to the maximum extent that other missions, personnel, and equipment permit.

STEWS-NRES-F

SUBJECT: Mutual Assistance Fighting Fires and Responding to Medical Emergencies

c. The assisting department shall determine which personnel and equipment to send in response to a call for assistance.

d. The requesting department's fire chief or subordinate on the scene of the fire or emergency will be in charge of all personnel and equipment on the scene, regardless of which department they come from.

e. The assisting department's officers will command their own crews and equipment, subject to the overall direction of the requesting department's officer in charge on the scene.

f. Each department waives any claim against the other department for compensation for expenses, costs, or liability for damages, losses, injuries, or deaths resulting from performance under this agreement.

g. No department shall be liable to the other for failure to respond to a request for assistance.

h. The departments are encouraged to tour each other's facilities and to meet and plan for contingencies.

i. Either party may withdraw from this agreement after providing the other party written notice 30 days in advance.

j. This MOA shall be in force on the date the latest party executes it and shall remain in force until revoked or superseded.

k. Points of contact:

(1) White Sands Missile Range: The Fire Chief, STEWS-NRES-F, (505) 678-5105.

(2) NASA White Sands Test Facility: The Fire Chief, (505) 835-3969.

STEWS-NRES-F

SUBJECT: Mutual Assistance Fighting Fires and Responding to Medical Emergencies

WITNESS our hands this date:

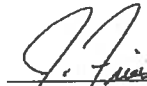
FOR THE SECRETARY OF THE ARMY:

FOR THE NASA WHITE SANDS TEST
FACILITY:



HARRY D. GATANAS
Brigadier General, USA
Commanding

Date: 30 SEP 1998



JOE FRIES
NASA Site Manager

Date: 11-10-98

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

Appointment of Hazardous Waste Satellite Accumulation Point Manager and Alternate(s)

The following personnel are hereby appointed as the Satellite Accumulation Point Manager and Alternate(s) and will uphold and abide to all necessary environmental regulatory requirements in managing the hazardous waste satellite accumulation point:

<i>Position</i>	<i>Name</i>	<i>Office Symbol</i>	<i>(SAP) ID No.</i>	<i>Duty Phone</i>
Manager	Eric Armitage	Raytheon	23656 A & B	678-9720
Alternate	Colby Richardson	Raytheon	23656 A & B	678-9720
2 nd Alternate	Debra Prather	Raytheon	23656 A & B	678-9710
3 rd Alternate	Mayda Castro	Raytheon	23656 A & B	678-9323
Supervisor	Cameron Gibson	Raytheon	23656 A & B	678-9720
Env. Officer	Allen Tyree	TEDT-WSM	23656 A & B	678-4773

If any changes are expected/occur with the primary and alternate SAP managers (i.e. 60 day TDY, PCS, SAP no longer managed, etc.), HWMC will be notified via an update of this notification.

Authorized and signed by (print name): Cameron Gibson	Signature: 	
Organization: Raytheon, MCVC	Title: Center Exec	Date: 12/15/2017

Complete this form and return to:

**HWMC
Building 1870
WSMR, NM 88002
575.678.4641**

HWMC September 2010

WSMR SATELLITE ACCUMULATION POINT JOB TITLES AND DUTIES

DATE: 02/06/2017

ORGANIZATION /ACTIVITY: **Material Test Directorate / PATRIOT PAC-2 MAB**

SATELLITE ACCUMULATION POINT (SAP) ID NUMBER(s): **23656 A, B**

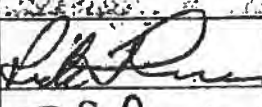
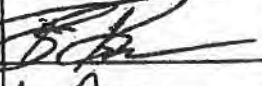
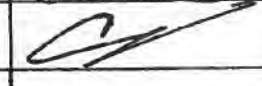
Name	Job Title	Job Description	Training Required
Allen B. Tyree	Environmental Officer	• Responsible for the overall operation of hazardous waste activities by the organization • Raise hazardous waste concerns/issues to appropriate management levels within your chain of command for action and review • On base transportation and turn-in	WSMR Hazardous Waste (RCRA) training/SAP operations, Hazard Communication Training,
N/A	Environmental Officer Alternate	• Assists and/or substitutes for the Environmental Officer when absent and assumes all responsibilities as stated in the Environmental Officer Job Description above • Raise hazardous waste concerns/issues to appropriate management levels within your chain of command for action and review • On base transportation and turn-in	WSMR Hazardous Waste (RCRA) training/SAP operations, Hazard Communication Training
See attached list	Satellite Accumulation Point Manager	• Manage the hazardous waste at the SAP in compliance with applicable laws/regulations. This includes, but not limited to, placing the waste into the container, annotating the container log, conducting weekly inspections. • Maintain a SAP Folder with all required records and information • Maintain adequate emergency spill/personal protective equipment for spills at the SAP • As required, request assistance and obtain necessary training from the HWMC or other sources • Train/supervise operators involved in handling hazardous waste and recording training information at the SAP • Raise hazardous waste concerns/issues to appropriate management levels within your chain of command for action and review • On base transportation and turn-in	WSMR Hazardous Waste (RCRA) training, Hazard Communication Training, 8-Hour (Haz Waste) RCRA on-the-job training
See Attached list	Satellite Accumulation Point Alternate Manager	• Assists and/or substitutes for the SAP Manager when absent • Assumes all responsibilities as stated in the Satellite Accumulation Point Manager Job Description above • Raise hazardous waste concerns/issues to appropriate management levels within your chain of command for action and review • On base transportation and turn-in	WSMR Hazardous Waste (RCRA) training, Hazard Communication Training, 8-Hour (Haz Waste) RCRA on-the-job training
See attached list	Satellite Accumulation Point Operator	• Involved with waste generating process • Perform hazardous waste activities at the SAP in compliance with applicable laws/regulations. This includes, but not limited to, placing waste into the container, annotating container log, assisting with weekly inspections • Raise hazardous waste concerns/issues to appropriate management levels within your chain of command for action and review • On base transportation and turn-in	WSMR Hazardous Waste (RCRA) training, Hazard Communication Training, 8-Hour (Haz Waste) RCRA on-the-job training

HWAIC January 2017

MAB
Bldg 23656

PERMIT CONDITION 4.2.1. 8-HR OJT FOR SATELLITE ACCUMULATION POINT

The undersigned confirms that he has satisfied the 8-hour on-the-job-training for duties associated with the operation and management of the Hazardous Waste Satellite Accumulation Point operated under WSMR Hazardous Waste Storage Facility Permit and Resource Conservation & Recovery Act (RCRA) requirements.

Name (Please Print)	Signature	Env. Officer Acknowledgement (Initial)	Date
RICK THOMEN		Allen Tynor	1/26/17
GARY SCHUSTER	G Schuster	Allen Tynor	1/26/17
LEONARD DEALE	L Deale	Allen Tynor	1/26/17
BENJAMIN BENCOMO		Allen Tynor	1/26/17
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
DEBRA K PRATHEZ	Debra Prathez	Allen Tynor	1/26/17
Mayda Castro	Mayda Castro	Allen Tynor	1/26/17
ERIC ARMITAGE		Allen Tynor	1/16/18
Colby Richardson		Allen Tynor	1/16/18



US ARMY WSMR

This
Certificate of Training
confirms that

Debra Prather

has completed training for
Hazardous Waste/Satellite Accumulation Point
and
Hazcom Awareness
on

09 March 2017

Instructor: **HARRISON.JON.ED**
WARD.1408595882

Digitally signed by
HARRISON.JON.EDWARD 1408595882
DN: cn=US, o=U.S. Government, ou=DoD, ou=PM
en=USA,
c=HARRISON.JON.EDWARD 1408595882
Date: 2017.03.09 09:45:12 -0700

09 March 2017

Date: _____

Your Refresher Due on or by:
March 2018

Training provided by:
DPWE-EC, Hazardous Waste Management Center, Building 1870, WSMR, NM 88002
575.678.4641



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

REPLY TO
ATTENTION OF

MUTUAL FIRE PROTECTION AND EMERGENCY RESPONSE AGREEMENT

THIS AGREEMENT, between the City of Las Cruces, a New Mexico municipal corporation and the United States Government, through its independent agency, White Sands Missile Range, provides for assistance in fire protection and emergency response between the jurisdictional areas of both parties contingent upon a request from the White Sands Missile Range Fire Chief or their designee, or any Las Cruces Chief ranking officer or their designee.

NOW, THEREFORE, the parties in consideration of the mutual promises herein contained and agree as follows:

1. The term of this Agreement shall be for an indefinite period of time.
2. Neither party shall be entitled to any reimbursement for all or any part of the costs or expenses incurred by such party in furnishing assistance outside of its jurisdiction.
3. Both parties waive all claims against each other from compensation for any property loss, damage, personal injury or death occurring in consequence of the performance of this Agreement.
4. Neither party shall be responsible for liability incurred as a result of the other party's acts or omissions with this Agreement. Any liability incurred by Las Cruces in connection with this Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act. Any liability incurred by White Sands Missile Range in connection with this Agreement is subject to the immunities and limitations of the Federal Tort Claims Act.
5. Each party shall be solely responsible for fiscal or other sanctions, penalties, or fines occasioned as a result of its own violation of requirements applicable to performance of this Agreement. Las Cruces shall be liable for its acts or failure to act in accordance with this Agreement, subject to the immunities and limitations of the New Mexico Tort Claims Act. White Sands Missile Range shall be liable for its acts or failure to act in accordance with this Agreement, subject to the immunities and limitations of the Federal Tort Claims Act.
6. Response to a request for assistance from the other party will be subject to availability of personnel, equipment and resources.

7. The respective authorized representatives will, upon receipt of an authorized call requesting assistance, determine the type and number of units which are needed for an adequate response and the availability of personnel, equipment and resources.

8. Both parties will have their fire departments respond to fires or other emergencies in the following manner:

a. Las Cruces will dispatch its emergency response equipment and personnel only upon official request for assistance from the White Sands Missile Range Fire Chief or their designee.

b. White Sands Missile Range will dispatch its emergency response equipment and personnel only upon official request for assistance from any Las Cruces Chief ranking officer or their designee.

c. All efforts will be made to release the assisting party as soon as practical.

d. A Rapid Intervention Team (RIT) is required when personnel from either entity operate in an environment that is classified as Immediately Dangerous to Life or Health (IDLH) in accordance with National Fire Protection Agency (NFPA) Standard 1500 and Occupational Safety & Health Administration (OSHA) CFR 1910.120 and 1910.134. If a RIT has not been established by either entity, Las Cruces' actions will be limited to those that are allowed through OSHA compliance.

e. Utilize Incident Command System/Unified Command to manage all emergency response incidents. The Unified Command structure is utilized for managing multi-jurisdictional responses. Conduct onsite safety briefings for firefighters prior to incident engagement (UXO, Target Hazard areas).

f. The Incident Commander for the incident will be from the jurisdiction where the incident is taking place.

g. The Incident Command System will be adhered to by both parties when responding to either jurisdiction. Responding units will report to the Incident Commander upon arrival and will be subject to the operational directives of that official.

h. The senior ranking officer from each department who responds to the request for assistance will become part of the incident command system command staff, and will remain with the Incident Commander throughout the incident mitigation period.

i. Both parties agree to assist each other with Emergency Medical Services calls, but will attempt to limit their request for assistance to those which are life threatening in nature.

j. Hazardous Materials response will be limited to a level commensurate to the severity of the incident. This response will be based on the information received from the requesting agency.

9. Both parties will keep accurate records of all calls requesting assistance from the respective jurisdiction requesting aid. Said records shall include data on equipment responding, personnel employed, time spent and materials expended.

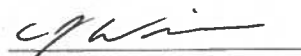
10. Nothing under the terms of this Agreement shall require White Sands Missile Range or Las Cruces to purchase additional equipment or hire additional personnel in order to comply with the terms of this Agreement.

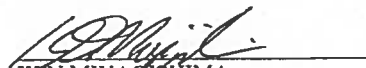
11. Both parties agree that furnishing of any Emergency Response under this Agreement will be subordinate to requests for, and rendering of, any services necessary within their respective jurisdictions.

12. This Agreement may be terminated by providing written notice to the other party of its intent to do so. Such notice will be deemed delivered when either the White Sands Missile Range Fire Chief or the Las Cruces City Manager are served with such documentation.

FOR WHITE SANDS MISSILE
RANGE:

FOR CITY OF LAS CRUCES:

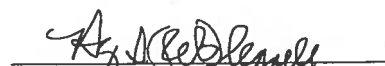

C. J. WICKER
COL, LG
Commanding


KEN MIYAGISHIMA
LAS CRUCES MAYOR

DATE: 26 May 2010

DATE: 5/11/2010

APPROVED AS TO FORM:


HARRY S. (PETE) CONNOLLY
Las Cruces Interim City Attorney



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

REPLY TO
ATTENTION OF

MUTUAL AID AGREEMENT
BETWEEN
U.S. ARMY WHITE SANDS MISSILE RANGE, NEW MEXICO
AND
THE SOCORRO COUNTY FIRE DEPARTMENT,

This agreement, entered into this 8 day of November 2011, between the Secretary of the Army, White Sands Missile Range, New Mexico, acting according to the authority of section 1856a, title 42, United States Code, and the Socorro County Fire Department, New Mexico, acting according to the authority of 16 United States Code 668dd. is to secure for each the benefits of mutual aid in fire prevention, the protection of life and property from fire, and firefighting. This agreement is further intended to secure for each the benefits of mutual aid to support their missions, to decrease the risk and spread of catastrophic wildland fire, to use natural fire to achieve military and Socorro County natural resource management objectives, to use prescribed fire to achieve military and Socorro County Fire Department management objectives, and to use fuel reduction to lower the risk of wild fire. Prescription fire support request shall be coordinated through the White Sands Missile Range Environmental Office. It is agreed that:

a. On request to a representative of the White Sands Missile Range Fire Department by a representative of the Socorro County Fire Department, firefighting equipment and personnel of the White Sands Missile Range Fire Department will be dispatched when available to any point along or within the boundary of the White Sands Missile Range land for which the Socorro County Fire Department normally provides fire protection as designated by the Socorro County Fire Department Fire Marshal.

b. On request to the Socorro County Fire Marshal, or his or her designee, by a representative of the White Sands Missile Range Fire Department, firefighting equipment and personnel of the Socorro County Fire Department will be dispatched when available to any point within White Sands Missile Range, located within the boundaries of Socorro County, which the White Sands Missile Range Fire Department represents as having been cleared of unexploded ordnance issues, and for which the White Sands Missile Range Fire Department normally provides fire protection as designated by the representative of the White Sands Missile Range Fire Department.

c. A representative for either the Socorro County Fire Department or White Sands Missile Range Fire Department will be notified immediately of any fire found on or approaching the other's land.

d. The rendering of assistance under the terms of this agreement shall not be mandatory, but the party receiving the request for assistance should immediately inform the requesting party if, for any reason, assistance cannot be rendered.

e. Any dispatch of equipment and personnel pursuant to this agreement is subject to the following conditions:

(1) Any request for aid under this agreement will specify the location to which the equipment and personnel are to be dispatched; however, the amount and type of equipment and number of personnel to be furnished will be determined by a representative of the responding organization.

(2) The responding organization will report to the officer in charge of the requesting organization at the location to which the equipment is dispatched, and will be subject to the orders of that official.

(3) A responding organization will be released by the requesting organization when the services of the responding organization are no longer required, or when the responding organization is needed within the area for which it normally provides fire protection.

(4) If a crash of aircraft, rockets, missiles, unmanned aerospace vehicles or similar systems owned or operated by the United States or any foreign nation occurs within the area for which the Socorro County Fire Department normally provides fire protection, the Chief of White Sands Missile Range Fire Department or his or her representative may assume full command on arrival at the scene of the crash.

f. Each party hereby waives all claims against every other party for compensation for any loss, damage, injury or death occurring as a consequence of the performance of this agreement except those claims authorized under 15 United States Code 2210.

g. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to frequently visit each other's activities for guided familiarization tours consistent with local security issues and, as feasible, to jointly conduct wildland preseason fire program inspections, to jointly conduct wildfire risk evaluations, and to jointly plan and conduct both the use of prescribed fire and the use of natural fire.

(1) Both parties shall have access, if requested, to copy of the other party's Fire Management Plan to familiarize fire management personnel with accepted practices and limitations of acceptable resource management practices and appropriate management responses.

(2) All actions requested of the other party shall be approved in the respective Agency Land Use/Management Plan or Fire Management Plan including prescribed fire, natural fire use and wildfire suppression alternatives which are recommended or selected.

h. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to attend training and classroom exercise to meet Incident Qualifications and Certification System standards for fighting wildland fires and for conducting prescribed burns.

i. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to share fire weather information and any other information that pertains to planning and implementing wildland fire suppression, implementing and conducting prescribed fires, as well as, conducting natural fire use.

j. The technical staff of the fire departments of the parties to this agreement are authorized and directed to meet and draft any detailed plans and procedures of operation to effectively implement this agreement. Such plans and procedures of operations shall become effective upon ratification by the signatory parties.

k. All equipment used by the Socorro County Fire Department in carrying out this agreement will be owned by the Socorro County Fire Department and all personnel acting for the Socorro County Fire Department under this agreement will be employees or volunteers of the Socorro County Fire Department.

l. This agreement shall become effective upon the date of the last signature hereon and shall remain in full force and effect until cancelled by mutual agreement of the parties or by written notice by one party to the other party, giving thirty days notice of said cancellation.

m. This agreement will be reviewed biennially (every two years) and updated by mutual aid agreement in writing as necessary.

n. This agreement may be amended by written agreement of the parties.

o. No direct funding is required or authorized by this agreement and no property, real or personal, shall be acquired, managed or disposed of hereto. Each party will maintain its own personnel's equipment and each will be responsible for all costs for emergency or routine assistance if it occurs as a result of an incident.

p. Implementation of this agreement by the parties is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this agreement will be construed by the parties to require the obligation, appropriation, or expenditure of any money from the United States Treasury. The parties acknowledge that they will not be required under this agreement to expend any federal appropriated funds unless and until an authorized official affirmatively acts to commit to such expenditures as evidenced in writing.

q. The provisions of the statutes cited in this agreement contain legally binding requirements. The agreement itself does not alter, expand, or substitute for those provisions or regulations, nor is it a regulation itself. This agreement contains internal procedural guidance to

the parties; respective staffs to assist them in carrying out existing legal requirements. This agreement does not create a right of action for third parties.

r. During the performance of this agreement, the parties agree to abide by the terms of Executive Order 11246 which addresses non-discrimination. The parties will not discriminate against any person because of race, color, religion, sex, or national origin.

FOR WHITE SANDS MISSILE RANGE:


LEO G. FULLAR
Colonel, US Army
Garrison Commander

DATE: 16 Nov 2011



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

REPLY TO
ATTENTION OF

**MUTUAL AID AGREEMENT
BETWEEN
U.S. ARMY WHITE SANDS MISSILE RANGE, NEW MEXICO
AND
THE CITY OF SOCORRO FIRE DEPARTMENT, NEW MEXICO**

This mutual aid agreement is entered into by and between White Sands Missile Range Fire Department and Socorro Fire Department.

IT IS MUTUALLY AGREED BETWEEN THE PARTIES:

PURPOSE AND SCOPE:

1. The purpose of the Agreement is for the parties to this Agreement to provide emergency assistance, outside their geographic area and responsibility, to a requesting party in emergency situations, which are beyond the total emergency response capability and capabilities of the primary responding agency.
2. Upon reasonable notice, the responding party will activate emergency support procedures for the type of support necessary and within its capabilities and available equipment. The responding party has the legal right to assist in such requests for assistance. The responding party shall provide its own liability insurance outside its own geographical area. For White Sands Missile Range Fire Department this geographical area is the boundaries of Socorro County.
3. Subject to availability of personnel and equipment, the responding party will render assistance in accordance with the capabilities of personnel and equipment available during the period of emergency. However, no party is obligated to respond to support another party and provide equipment if responding party has priorities within their area and shall not respond if it creates a situation wherein the geographic area of responsibility of the responding party is left without support, or is vulnerable to an emergency crisis of its own. This Agreement is not enforceable against any party refusing to provide or accept aid to or from the other party.

TERMS:

The period of the Agreement is from the date of the last signature on the Agreement and shall continue in effect until either party notifies the other party 60 days in advance of its intention to terminate the Agreement.

GOVERNING PROCEDURES:

This Agreement is governed by New Mexico Law. Both parties shall comply with the terms and conditions of the Agreement and also with the federal, state, and local laws applicable to emergency conditions of catastrophic proportions.

Each party shall maintain its own autonomy in regards to geographic jurisdictions. During those times that the responding party is contacted for support and provides emergency assistance, it is authorized to enter the jurisdictional territory of the party requiring assistance. The responding party shall report to the requesting party's Officer-in-Charge and is subject to the orders of that official during the emergency. The responding party reserves the right to withdraw its personnel and/or equipment, if the responding party Office-in-Charge determines that the situation is hazardous or an emergency situation has developed in his own area of responsibility.

TERMINATION:

The Agreement may be terminated by either with or without cause by providing notice to the other party in writing 60 days prior to the date of termination.

EQUIPMENT MANAGEMENT:

Each party to this Agreement shall keep strict accountability of its equipment. No equipment is to be acquired as a result of this Agreement, nor shall there be any disbursements or receipts of money between the parties as a result of the Agreement. Each party is responsible for maintenance and repair of its own equipment.

INSURANCE:

Each parties to this Agreement shall maintain liability insurance or qualify as a self-insured entity, as required by law.

SIGNATURE AUTHORITY:

Both parties represent that the persons signing this contract on behalf of White Sands Missile Range Fire Department and the Socorro Fire Department have the authority to do so.

FOR WHITE SANDS MISSILE RANGE:



C. J. WICKER
COL, LG
Commanding

DATE: 12 June 2010

FOR SOCORRO FIRE DEPARTMENT:



JOE GONZALES
CHIEF

DATE: 6-23-10



**DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000**

**DEPARTMENT OF THE ARMY
MUTUAL AID AGREEMENT
BETWEEN
WHITE SANDS MISSILE RANGE
AND OTERO COUNTY**

This agreement, entered into this 2 day of March, 2009, between the Secretary of the Army acting according to the authority of section 1856a, title 42, United States Code and the Otero County Office of Emergency Services is to secure for each the benefits of mutual aid in fire prevention, the protection of life and property from fire, and firefighting to include emergency services, including basic medical support, basic and advanced life support, hazardous material containment and confinement, and special rescue events involving vehicular and water mishaps, and trench, building and confined space extrications.

It is agreed that

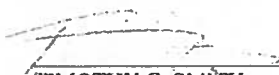
- a. On request to a representative of the White Sands Missile Range by a representative of the County of Otero, firefighting equipment and personnel of the White Sands Missile Range Fire Department will be dispatched when available to any point within the area for which the County of Otero normally provides fire protection and Emergency Medical Services as designated by the representative of the Office of Emergency Services.
- b. On request to a representative of the County of Otero by a representative of the White Sands Missile Range Fire Department, firefighting equipment, EMS Services and personnel of the County of Otero will be dispatched when available to any point within the firefighting jurisdiction of the White Sands Missile Range Fire Department.
- c. The rendering of assistance under the terms of this agreement shall not be mandatory, but the party receiving the request for assistance should immediately inform the requesting department if, for any reason, assistance cannot be rendered.
- d. Any dispatch of equipment and personnel pursuant to this agreement is subject to the following conditions:
 - (1) Any request for aid under this agreement will specify the location to which the equipment and personnel are to be dispatched; however, the amount and type of equipment and the number of personnel to be furnished will be determined by a representative of the responding organization.
 - (2) The responding organization will report to the officer in charge of the requesting organization at the location to which the equipment is dispatched, and will be subject to the orders of the official
 - (3) A responding organization will be released by the requesting organization when the services of the responding organization are no longer required,

DEPARTMENT OF THE ARMY
U.S. ARMY WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

or when the responding organization is needed within the area for which it normally provides fire protection.

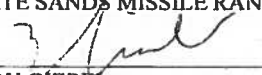
- (4) If a crash of aircraft owned and operated by the United States or military aircraft of a foreign nation occurs within Otero County and normally provides fire protection, the Chief of White Sands Missile Range Fire Department or his or her representative may assume full command on arrival at the scene of the crash.
- c. Each party hereby waives all claims against every other party for compensation for any loss, damage, injury or death occurring as consequence of the performance of this agreement except those claims authorized under 15 U. S. C. 2210.
- f. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to frequently visit each other's activities for guided familiarization tours consistent with local security requirements and, as feasible, to jointly prefire planning inspections and drills.
- g. The technical heads of the fire departments of the parties to this agreement are authorized and directed to meet and draft any detailed plans and procedures of operation necessary to effectively implement this agreement. Such plans and procedures of operations become effective upon ratification by the signatory parties.
- h. All equipment used by Otero County in carrying out this agreement will be owned by the Otero County; and all personnel acting for Otero County under this agreement will be an employee or volunteer member of Otero County.
1. This agreement shall become effective upon the date hereof and remain in full force and effect until cancelled by mutual agreement of the parties hereto or by written notice by one party to the other party, giving thirty (30) days notice of said cancellation.

FOR OTERO COUNTY:


TIMOTHY C. SMITH
Otero County
County Manager

DATE: 3/21/77

FOR THE SECRETARY OF THE ARMY
WHITE SANDS MISSILE RANGE:


GARY GIEBEL
Colonel, U.S. Army
Garrison Commander

DATE: 18 Nov 09



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

17-139 - -

MUTUAL AID AGREEMENT
BETWEEN
GARRISON COMMANDER, U.S. ARMY WHITE SANDS MISSILE RANGE,
NEW MEXICO
AND
DONA ANA COUNTY

This agreement, entered into this 20 day of Jan 2017, between the Secretary of the Army, White Sands Missile Range, New Mexico, acting according to the authority of section 1856a, title 42, United States Code, and the Dona Ana County, New Mexico is to secure for each the benefits of mutual aid in fire prevention, the protection of life and property from fire, and firefighting. This agreement is further intended to secure for each the benefits of mutual aid to support their missions, to decrease the risk and spread of catastrophic wildland fire, to use natural fire to achieve military and Dona Ana County natural resource management objectives, to use prescribed fire to achieve military and Dona Ana County management objectives, and to use fuel reduction to lower the risk of wild fire. Prescription fire support request shall be coordinated through the White Sands Missile Range Environmental Office. It is agreed that:

- a. On request to a representative of the White Sands Missile Range Fire Department by a representative of the Dona Ana County, firefighting equipment and personnel of the White Sands Missile Range Fire Department will be dispatched when available to any point along or within the boundary of the White Sands Missile Range land for which the Dona Ana County normally provides fire protection as designated by the Dona Ana County Fire Chief.
- b. On request to the Dona Ana County Fire Chief, or his or her designee, by a representative of the White Sands Missile Range Fire Department, firefighting equipment and personnel of the Dona Ana County will be dispatched when available to any point within White Sands Missile Range, located within the boundaries of Dona Ana County, which the White Sands Missile Range Fire Department represents as having been cleared of unexploded ordnance issues, and for which the White Sands Missile Range Fire Department normally provides fire protection as designated by the representative of the White Sands Missile Range Fire Department.
- c. A representative for either the Dona Ana County or White Sands Missile Range Fire Department will be notified immediately of any fire found on or approaching the other's land.

d. The rendering of assistance under the terms of this agreement shall not be mandatory, but the party receiving the request for assistance should immediately inform the requesting party if, for any reason, assistance cannot be rendered.

e. Any dispatch of equipment and personnel pursuant to this agreement is subject to the following conditions:

(1) Any request for aid under this agreement will specify the location to which the equipment and personnel are to be dispatched; however, the amount and type of equipment and number of personnel to be furnished will be determined by a representative of the responding organization.

(2) The responding organization will report to the officer in charge of the requesting organization at the location to which the equipment is dispatched, and will be subject to the orders of that official.

(3) A responding organization will be released by the requesting organization when the services of the responding organization are no longer required, or when the responding organization is needed within the area for which it normally provides fire protection.

(4) If a crash of aircraft, rockets, missiles, unmanned aerospace vehicles or similar systems owned or operated by the United States or any foreign nation occurs within the area for which the Dona Ana County normally provides fire protection, the Chief of White Sands Missile Range Fire Department or his or her representative may assume full command on arrival at the scene of the crash.

f. Each party hereby waives all claims against every other party for compensation for any loss, damage, injury or death occurring as a consequence of the performance of this agreement except those claims authorized under 15 United States Code 2210.

g. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to frequently visit each other's activities for guided familiarization tours consistent with local security issues and, as feasible, to jointly conduct wildland preseason fire program inspections, to jointly conduct wildfire risk evaluations, and to jointly plan and conduct both the use of prescribed fire and the use of natural fire.

(1) Both parties shall have access, if requested, to copy of the other party's Fire Management Plan to familiarize fire management personnel with accepted practices and limitations of acceptable resource management practices and appropriate management responses.

(2) All actions requested of the other party shall be approved in the respective Agency Land Use/Management Plan or Fire Management Plan including prescribed fire, natural fire use and wildfire suppression alternatives which are recommended or selected.

h. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to attend training and classroom exercise to meet Incident Qualifications and Certification System standards for fighting wildland fires and for conducting prescribed burns.

i. The chief fire officers and personnel of the fire departments of both parties to this agreement are invited and encouraged, on a reciprocal basis, to share fire weather information and any other information that pertains to planning and implementing wildland fire suppression, implementing and conducting prescribed fires, as well as, conducting natural fire use.

j. The technical staff of the fire departments of the parties to this agreement are authorized and directed to meet and draft any detailed plans and procedures of operation to effectively implement this agreement. Such plans and procedures of operations shall become effective upon ratification by the signatory parties.

k. All equipment used by the Dona Ana County in carrying out this agreement will be owned by the Dona Ana County and all personnel acting for the Dona Ana County under this agreement will be employees or volunteers of the Dona Ana County.

l. This agreement shall become effective upon the date of the last signature hereon and shall remain in full force and effect until cancelled by mutual agreement of the parties or by written notice by one party to the other party, giving thirty days notice of said cancellation.

m. This agreement will be reviewed biennially (every two years) and updated by mutual aid agreement in writing as necessary.

n. This agreement may be amended by written agreement of the parties.

o. No direct funding is required or authorized by this agreement and no property, real or personal, shall be acquired, managed or disposed of hereto. Each party will maintain its own personnel's equipment and each will be responsible for all costs for emergency or routine assistance if it occurs as a result of an incident.

p. Implementation of this agreement by the parties is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this agreement will be construed by the parties to require the obligation, appropriation, or expenditure of any money from the United States Treasury or the treasury of Dona Ana

County. The parties acknowledge that they will not be required under this agreement to expend any federal, state or county appropriated funds unless and until an authorized official affirmatively acts to commit to such expenditures as evidenced in writing.

q. The provisions of the statutes cited in this agreement contain legally binding requirements. The agreement itself does not alter, expand, or substitute for those provisions or regulations, nor is it a regulation itself. This agreement contains internal procedural guidance to the parties; respective staffs to assist them in carrying out existing legal requirements. This agreement does not create a right of action for third parties.

r. During the performance of this agreement, the parties agree to abide by the terms of Executive Order 11246 which addresses non-discrimination. The parties will not discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity or national origin.

FOR WHITE SANDS MISSILE RANGE:



RONALD D. BROWN
Colonel, US Army
Commanding

DATE: 12 JAN 17

DONA ANA COUNTY:

JULIA T. BROWN ESQ.
County Manager

DATE: [Signature]



ERIC L. CRESPIÑ
Interim County Fire Chief

DATE: 20 JAN. 2017

P A C K L I S T

Page: 1

9/11/17

10:47:17

Order#:

SZ



17022848

From:869 EXIDE DALLAS HUB #869
9500 N ROYAL LANE, SUI
IRVING TX 75063

Pick#: 11862968

XD Trip: 19220 Seq#: 17

Order Delivered By EXIDE EL PASO BRANCH #430

T81 S10

Dept:164 (2623068)

Comment:

Ship To: W90TVF
EQUIP MGT BR, EQUIP ACCT SE
BLDG 1870 ABERDEEN ROAD
WHITE SANDS MISSILE RANGE

W90TVF

Customer Order #: SPE7LX16D0072 033G

W90TVF72440009



Customer Type	SKU/Item#	Brand Master	Qty Ordered	Qty Shipped	Qty BackOrder	Qty Received
6140014469506	6TMF		2	2	0	2
			2	2	0	

Serial Number	Customer Type	Pallet Quantity
389779	6140014469506	2

Shipment Weight 150 Shipment Quantity 2 No. of Pallets 1 17022848ASZ R55337

Art Gatmen
Verified by:

Art Gatmen
Lea 7276



CUSTOMER RETURN RECEIPT

PAGE:
1 OF 1



From: 430 EXIDE EL PASO BRANCH #430
1706 MYRTLE AVE
EL PASO TX 79901
(915) 309-5217

DATE
10/03/17
09:58:16

ORDER NO.
17096875ASG

Sold To: 1888911
DFAS-COLUMBUS CENTER
ATTN: DFAS-CO-BVDPCG
P.O. BOX 182317
COLUMBUS OH 43218

Ship To: 2623068
W90TVF
EQUIP MGT BR, EQUIP ACCT SEC
BLDG 1870 ABERDEEN ROAD
WHITE SANDS MISSILE RAN NM 88002

ROTATES

TRIP 11751

*QTY	HM	DOT DESCRIPTION	WEIGHT (lbs)	DATE CODE	UNIT PRICE	TOTAL
		UN2794, BATTERIES, WET, FILLED WITH ACID, 8				
		PART DESCRIPTION				

WARRANTIES

*QTY	HM	DOT DESCRIPTION	WEIGHT (lbs)	DATE CODE	MO. OF SERV.	UNIT PRICE	TOTAL
		UN2794, BATTERIES, WET, FILLED WITH ACID, 8					
		PART DESCRIPTION					

SPENT BATTERIES

*QTY	HM	DOT DESCRIPTION	WEIGHT (lbs)	PART NUMBER	UNIT PRICE	TOTAL
20		UN2794, BATTERIES, WET, FILLED WITH ACID, 8	1450			
		PART DESCRIPTION				
		MOTORCYCLE (Class D)	0.5	8900012		
		LAWN & GARDEN, DC9 (Class L&G)	0.5	8900011		
4		AUTO & GROUPS 1, 2, 3, & 17TF (Class A)	1.0	8900007		
20		GRPS 4, 31, 3ET, 30H, EV, 5D (Class B, EV, 5D)	1.5	8900018		
		7D, 4DLT, FS-2, FS-12, FS-8 (Class 7D)	2.0	8900008		
2		4D, & 8VM-D (Class C)	3.0	8900019		
		8D & 8VM-GD (Class H)	4.0	8900010		
		SCRAP JUNKS WET (lbs)		10201		
		INDUSTRIAL BATTERIES WET (lbs)		10207		
*QTY	HM	DOT DESCRIPTION	WEIGHT (lbs)	PART NUMBER	UNIT PRICE	TOTAL
		LEAD NOI				
		PART DESCRIPTION				
		WHEEL WEIGHTS (BUCKET) (ea)		8900013		
		WHEEL WEIGHTS LEAD (lbs)		10404		
*Qty subject to verification by Exide Technologies		Driver's Signature	Date	Customer's Signature		

This is to certify that the above materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

For the Shipper, Per Fernando Jacquez

FOR EMERGENCY RESPONSE INFORMATION AND INSTRUCTIONS, REFER TO NORTH AMERICAN RESPONSE GUIDE NUMBER 154
*FOR DRY BATTERIES PACKAGED WITH ACID, REFER TO NORTH AMERICAN RESPONSE GUIDE NUMBER 157
FOR 24 HOUR EMERGENCY ASSISTANCE, CALL CHEMTREC 1-800-424-9300 (Contract # CCN8124)

CUSTOMER



CUSTOMER DELIVERY POD

(This is NOT an Invoice)

PAGE:
1 OF 1



From: 430 EXIDE EL PASO BRANCH #430
1706 MYRTLE AVE
EL PASO TX 79901
(915) 309-5217

DATE
10/03/17
09:58:16

ORDER NO.
17096875ASG

Sold To: 1888911
DFAS-COLUMBUS CENTER
ATTN: DFAS-CO-BVDPCG
P.O. BOX 182317
COLUMBUS OH 43218

Ship To: 2623068
W90TVF
EQUIP MGT BR, EQUIP ACCT SEC
BLDG 1870 ABERDEEN ROAD
WHITE SANDS MISSILE RAN NM 88002

(575) 678-1522 JAMES GALLEGOS

P.O. NO.		SECOND P.O. NO.			TERMS	
Header Order BDD (XD)		17096875			Net 30 Days	
SHIP VIA		ORDER DATE	REQUEST DATE	TRIP	ROUTE	STOP
		10/03/17	10/10/17	11751	T81	S10
SHIPPED		HM	DOT DESCRIPTION			LABELS REQUIRED
QTY	WT. (lbs.)					
			UN2794, BATTERIES, WET, FILLED WITH ACID, 8			CORROSIVE
			UN2800, BATTERIES, WET, NON-SPILLABLE, 8			NON-SPILLABLE
			UN2796, BATTERY FLUID, ACID, 8, PG II*, WITH EMPTY OR DRY BATTERIES*			CORROSIVE
			UN2796, BATTERY FLUID, ACID, 8, PG II			CORROSIVE
			MISCELLANEOUS NON-REGULATED ITEM			

FOR EMERGENCY RESPONSE INFORMATION AND INSTRUCTIONS, REFER TO NORTH AMERICAN RESPONSE GUIDE NUMBER 154

*FOR DRY BATTERIES PACKAGED WITH ACID, REFER TO NORTH AMERICAN RESPONSE GUIDE NUMBER 157

FOR 24 HOUR EMERGENCY ASSISTANCE, CALL CHEMTREC 1-800-424-9300 (Contract # CCN8124)

ORDERED	SHIPPED	HM	B/O or CANCEL	DESCRIPTION	STOCK NO.	UNIT PRICE	TOTAL
				12585306 SHIPPER'S NO. W90TVF			

TOTALS				SUB TOTAL	
DELIVERY EXCEPTION CODE: CD - DAMAGED GOODS CO - OVERAGE (Customer Accepts)				TAX	
CS - SHORTAGE CR - CUSTOMER REFUSED				TOTAL	

QTY	HM	CUSTOMER DESCRIPTION	CODE	WT. (lbs)	EXPLANATION/COMMENTS

Driver's Signature	Date	Customer's Signature
	10-3-17	
SHIPMENT MUST BE INSPECTED AND CLAIMS FILED WITHIN 24 HOURS OF RECEIPT		
This is to certify that the above materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.		
For the Shipper, Per <u>Fernando Jacquez</u>		

CUSTOMER

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018



000080M EXIDE DALLAS HUB #869
9500 N ROYAL LANE, SUITE 150
IRVING TX 75063

THIS MEMORANDUM Original bill of Lading, nor a copy or duplicate, covering the property named here and is intended solely for filling or record. RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading.

BILL OF LADING NO. **12585306**
17022848 SPE7LX16D0072 033

DATE **9/11/17**

Subject to Section 7 of Conditions of applicable lading. If this shipment is to be delivered to consignee without recourse on the consignor, consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other law charges.

164-CONSIGNEE TO DESTINATION

02623068 W90TVF
EQUIP MGT BR, EQUIP ACCT SEC
BLDG 1870 ABERDEEN ROAD
WHITE SANDS MISSILE RANGE NM 88002

CARRIER NOTE:
On **PREPAID** Shipments **ONLY**
Show Shipper's No. and Mail Original and Duplicate
Prepaid Freight Bills for Payment To:
DATA2LOGISTICS
P.O. Box 61050 4310 Metro Parkway
Fort Myers, FL 33906 Fort Myers, FL 33916
Attn: Freight Audit Account G

(Signature of Consignor)
DATE SHIPPED

El TRIP Pass Branch

S.C.A.C. **Freight Prepaid**
If charges are to be prepaid, write or stamp here "To be Prepaid."

DATE REC'D. CUST. ORD. NO.

property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as including any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each fact of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CHEMTREC CONTRACT# CCN8124

OR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL, LEAK, FIRE OR EXPOSURE. CALL CHEMTREC TOLL FREE, DAY OR NIGHT: 1-800-424-9300 (CONTRACT #CCN812)

NO. PKGS.	HM	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (SUB. TO COR.) LBS.	LABELS REQUIRED	CLASS OR RATE	CK. COL.	NO. PKGS.	HM	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (SUB. TO COR.) LBS.	LABELS REQUIRED	CLASS OR RATE	CK. COL.
2	X	Pallets { UN2794, Batteries, Wet, Filled with Acid, 8	151	Corrosive					Pallets { Battery Covers or Vents, Plastic NOI				
		Pallets { Batteries, Electric Storage, Dry							Pallets { UN2800, Batteries, Wet, Non-Spillable, 8		NON-SPILLABLE		
		Pallets { UN2796, Battery Fluid, Acid, 8, PGII		Corrosive					Ctns. Battery Parts, Lead NOI				
		Pallets { UN2798, Battery Fluid, Acid, 8, PGII, with Empty or Dry Batteries		Corrosive									
		Pallets { Battery Boxes, Plastic NOI							SHIPPED ON 2 Reusable Pallets @ S/B 35#	100			

the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
NOTE-Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
he agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding **\$2.00** **Pound**

PLACARDS REQUIRED

CORROSIVE

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

For the Shipper, Per

Gary Cotter

(See name and permanent post office address above)

Per

Agent

FOLLOWING IS NOT A PART OF STRAIGHT BILL OF LADING - SHORT FORM

STORE INITIALS	REASON	REMARKS
JUNKS		
ROTATIONS		
VARRANTIES		

SHIPMENT MUST BE INSPECTED AND CLAIMS FILED WITHIN 72 HOURS OF RECEIPT

RECEIVED BY: - SIGNATURE

PRINT NAME: **ARTE GATIMEN JR.**

DATE:

TIME:



0000FROM EXIDE DALLAS HUB #869
9500 N ROYAL LANE, SUITE 150
IRVING TX 75063

Original bill of Lading, not a copy or duplicate, covering the property named herein and is intended solely for filling or record. RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading.

BILL OF LADING NO. **12585306**
17022848 SPE7LX1600072 G30

DATE **9/11/17**

Subject to Section 7 of Conditions of applicable of lading. If this shipment is to be delivered to consignee without recourse on the consignee, consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other law charges.

164-CONSIGNEE TO DESTINATION
02623068 W90TVF
EQUIP MGT BR. EQUIP ACCT SEC
BLDG 1876 ABERDEEN ROAD
WHITE SANDS MISSILE RANGE NM 88002

CARRIER NOTE:
On **PREPAID** Shipments **ONLY**
Show Shipper's No. and Mail Original and Duplicate
Prepaid Freight Bills for Payment To:
DATA2LOGISTICS
P.O. Box 61050 4310 Metro Parkway
Fort Myers, FL 33906 Fort Myers, FL 33916
Attn: Freight Audit Account G

(Signature of Consignor)
DATE SHIPPED
TRIP **El Paso Branch**
S.C.A.C.
Freight charges to be prepaid, write or stamp here "To be Prepaid."

DATE REC'D. CUST. ORD. NO.

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each unit of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CHEMTREC CONTRACT# CCN8124

FOR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL, LEAK, FIRE OR EXPOSURE. CALL CHEMTREC TOLL FREE, DAY OR NIGHT: 1-800-424-9300 (CONTRACT #CCN8124)

NO. PKGS.	HM	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (SUB. TO COR.) LBS.	LABELS REQUIRED	CLASS OR RATE	CK. COL.	NO. PKGS.	HM	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (SUB. TO COR.) LBS.	LABELS REQUIRED	CLASS OR RATE	CK. COL.	
2	X	Pallets { UN2794, Batteries, Wet, Filled with Acid, 8	151	Corrosive					Pallets { Battery Covers or Vents, Plastic NOI					Received \$ to apply in prepayment of the charges.
		Pallets { Batteries, Electric Storage, Dry							Pallets { UN2800, Batteries, Wet, Non-Spillable, 8		NON-SPILLABLE			Agent or Cashier
		Pallets { UN2796, Battery Fluid, Acid, 8, PGI		Corrosive					Ctns. Battery Parts, Lead NOI					Per (The signature here acknowledges only the amount prepaid)
		Pallets { UN2796, Battery Fluid, Acid, 8, PGI, with Empty or Dry Batteries		Corrosive										Charges Advanced
		Pallets { Battery Boxes, Plastic NOI							SHIPPED ON 2 Reusable Pallets @ S/B 35#	100				The fibre boxes used for this ship conform to the specification set the box maker's certificate thereon all other requirements of Rule 411 Consolidated Freight Classification

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
NOTE-Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding **\$2.00** **Pound**

PLACARDS REQUIRED

CORROSIVE

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

For the Shipper, Per **Gary Cotter**
(See name and permanent post office address above)

Per Agent

FOLLOWING IS NOT A PART OF STRAIGHT BILL OF LADING - SHORT FORM

STORE INITIALS	REASON	REMARKS

SHIPMENT MUST BE INSPECTED AND CLAIMS FILED WITHIN 72 HOURS OF RECEIPT

RECEIVED BY: - SIGNATURE **ART E. GATMEN JR.**
PRINT NAME: **ART E. GATMEN JR.**
DATE: TIME:



DEPARTMENT OF THE ARMY
U.S. ARMY GARRISON WHITE SANDS MISSILE RANGE
100 Headquarters Avenue
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000
September 30, 2014

Environmental Division

U.S. Environmental Protection Agency
Attention: RMP Reporting Center
P.O. Box 10162
Fairfax, VA 22038

Gentlemen:

The U.S. Army, White Sands Missile Range (WSMR), EPA Facility ID# 100000034072, recently conducted an installation-wide survey of toxic and flammable substances stored, or in use, at this facility and has completed a review of its risk management program. This review demonstrated that there are no regulated chemicals in storage, or in use, above threshold quantities at WSMR. As such, WSMR is no longer subject to the Risk Management Plan regulations at 40 CFR Part 68.

During the last Risk Management Plan updated in September 2009, WSMR reported a predicted quantity of 22,120 pounds of inhibited red fuming nitric acid stored in the fuel tanks of 20 Lance Missiles. Currently, WSMR has a combined total of 4,426 pounds of nitric acid stored in four Lance Missiles. The survey confirmed that the current inventory of nitric acid is significantly below the threshold quantity of 15,000 pounds. The Army has no plans to bring in additional similar articles onto WSMR and no other regulated chemicals were identified above threshold quantities.

This letter serves as WSMR's notification of de-registering in accordance with 40 CFR 68.190(c), effective October 1, 2014. A de-registration form is submitted with this letter.

Point of contact is Susan Van Horn, Chief, Environmental Compliance; she may be reached at (575) 678-6433.

Sincerely,

A handwritten signature in black ink, appearing to read "Jose A. Gallegos", is written over a horizontal line.

Jose A. Gallegos
Chief, Environmental Division

Enclosure

APPENDIX E. RISK MANAGEMENT PROGRAM DE-REGISTRATION FORMToday's Date: 9/30/2014EPA Facility Identifier: 100000034072Effective Date of De-registration: 9/30/2014Facility Name: U.S. Army White Sands Missile RangeFacility Address: Building 100City: WSMR State: NM Zip Code: 88002-5048**Select (Check) Reason for De-registration:**☒ X Source reduced inventory of all regulated substances below TQs☐ Source no longer uses any regulated substance☐ Source terminated operations☐ Other: _____

I, Jose A. Gallegos, certify the above stationary source as of the above
(Name of Facility Owner or Operator)
effective date is no longer covered by the Accidental Release Prevention Regulations, 40 CFR Part 68.


Signature of Owner or Operator30 Sep 2014
DateEnvironmental Division Chief
Official Title**PLEASE MAIL THE COMPLETED DE-REGISTRATION FORM PROMPTLY TO:**

U.S. Environmental Protection Agency
Attention: RMP Reporting Center
P.O Box 10162
Fairfax, VA 22038

If you prefer to send your De-registration Form by certified mail, courier or overnight mail (e.g., Fed Ex, UPS, etc.), please address it to:

RMP Reporting Center
c/o CGI Federal, Inc.
12601 Fair Lakes Circle
Fairfax, VA 22033

NOVAK INC DBA INTERSTATE BATTERIES OF LAS CRUCES
P.O. BOX 774
MESILLA PARK NM 88047
(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :106293
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97080
Date :02/27/2018
Time :3:15:21 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	12	6TL			149.95	1,799.40
Sale	6	MTP-27F			90.91	545.46
Sale	3	29H-VHD			86.95	260.85
		Sales Total				2,605.71
Cores Received	6	ATCORE				
Cores Received	15	LTCORE				
		Sub Total				2,605.71
		Sub Total				2,605.71
		Invoice Total				2,605.71
		Invoice Payment Amount				0.00
		Net Invoice				\$ 2,605.71

S97080
3-1-18

PRINT NAME HERE Zelman Dustin L

SIGNATURE Dustin L Zelman

NOVAK INC DBA INTERSTATE BATTERIES OF LAS CRUCES
P.O.BOX 774
MESILLA PARK NM 88047
(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr : 105320
Location of Sale : W01
Sales Person Name : JOSEPH NOVAK
Sales Person Nbr : JPN
PO Number : S97080
Date : 12/07/2017
Time : 4:36:36 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	4	29H-VHD			86.95	347.80
Sale	2	31-MHD			96.76	193.52
Sale	32	6TL			149.95	4,798.40
Sale	6	C24-XHD			80.95	485.70
Sale	2	MT-24F			79.16	158.32
Sale	4	MTP-27			94.12	376.48
Sale	4	MTP-27F			94.12	376.48
Sale	5	SP-22NF			52.95	264.75
Sales Total						7,001.45
Cores Received	21	ATCORE				
Cores Received	38	LTCORE				
Sub Total						7,001.45
Sub Total						7,001.45
Invoice Total						7,001.45
Invoice Payment Amount						0.00
Net Invoice						\$ 7,001.45

S97080
12-11-17

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Matt Zickl 12/7/17
Matt Zickl

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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr : 103847
Location of Sale : W01
Sales Person Name : JOSEPH NOVAK
Sales Person Nbr : JPN
PO Number : S97080
Date : 08/28/2017
Time : 8:00:51 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	15	6TL			149.95	2,249.25
Sale	3	31-MHD			96.76	290.28
		Sales Total				2,539.53
Cores Received	18	LTCORE				
		Sub Total				2,539.53
		Sub Total				2,539.53
		Invoice Total				2,539.53
		Invoice Payment Amount				0.00
		Net Invoice				\$ 2,539.53

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8/29/17

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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr : 103642
Location of Sale : W01
Sales Person Name : JOSEPH NOVAK
Sales Person Nbr : JPN
PO Number : S97080
Date : 08/10/2017
Time : 2:31:48 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	10	6TL			149.95	1,499.50
		Sales Total				1,499.50
Cores Received	10	LTCORE				
		Sub Total				1,499.50
		Sub Total				1,499.50
		Invoice Total				1,499.50
		Invoice Payment Amount				0.00
		Net Invoice				\$ 1,499.50

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8/17/17

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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr : 103298
Location of Sale : W01
Sales Person Name : JOSEPH NOVAK
Sales Person Nbr : JPN
PO Number : S97080
Date : 07/17/2017
Time : 8:24:39 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	14	6TL			149.95	2,099.30
		Sales Total				2,099.30
Cores Received	14	LTCORE				
		Sub Total				2,099.30
		Sub Total				2,099.30
		Invoice Total				2,099.30
		Invoice Payment Amount				0.00
		Net Invoice				\$ 2,099.30

S97080
7/18/17

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R.G. Murphy
R.G. Murphy 17 July 2017

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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr : 101857
Location of Sale : W01
Sales Person Name : JOSEPH NOVAK
Sales Person Nbr : JPN
PO Number : S97019
Date : 03/06/2017
Time : 8:18:25 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	4	4DLT-VHD			118.95	475.80
Sale	8	4D-XHD			149.95	1,199.60
Sale	12	6TL			149.95	1,799.40
		Sales Total				3,474.80
Cores Received	8	HVCORE				
Cores Received	16	LTCORE				
		Sub Total				3,474.80
		Sub Total				3,474.80
		Invoice Total				3,474.80
		Invoice Payment Amount				0.00
		Net Invoice				\$ 3,474.80

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3/15/17

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(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :101269
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :01/13/2017
Time :3:26:51 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	8	4D-XHD			149.95	1,199.60
Sale	4	4DLT-VHD			118.95	475.80
		Sales Total				1,675.40
Cores Received	8	HVCORE				
Cores Received	4	LTCORE				
		Sub Total				1,675.40
		Sub Total				1,675.40
		Invoice Total				1,675.40
		Invoice Payment Amount				0.00
		Net Invoice				\$ 1,675.40

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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :100852
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :12/14/2016
Time :8:11:32 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	8	4D-XHD			149.95	1,199.60
Sale	17	6TL			149.95	2,549.15
		Sales Total				3,748.75
Cores Received	8	HVCORE				
Cores Received	17	LTCORE				
		Sub Total				3,748.75
		Sub Total				3,748.75
		Invoice Total				3,748.75
		Invoice Payment Amount				0.00
		Net Invoice				\$ 3,748.75

597019
12/30/16

[Handwritten signature]

PRINT NAME HERE Joffrion Kemp

SIGNATURE 364776

KEMPJOFFRIONJAMES.1246
Digitally signed by KEMPJOFFRIONJAMES.1246364776
DN: cn=US, o=U.S. Government, ou=DoD, ou=PR,
ou=CONTRACTOR, cn=KEMPJOFFRIONJAMES.1246364776
Date: 2016.12.19 09:30:21 -0700

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(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :100785
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :12/07/2016
Time :8:17:21 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	8	C24-XHD			80.95	647.60
Sale	3	C27-XIID			79.16	237.48
Sale	1	MT-24F			79.16	79.16
Sale	3	31-ECL			98.95	296.85
Sales Total						1,261.09
Cores Received	12	ATCORE				
Cores Received	3	LTCORE				
Sub Total						1,261.09
Sub Total						1,261.09
Invoice Total						1,261.09
Invoice Payment Amount						0.00
Net Invoice						\$ 1,261.09

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12-16-16

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PRINT NAME HERE

Jefferson Kemp

SIGNATURE

[Signature]

NOVAK INC DBA INTERSTATE BATTER LAS CRUCES
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Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :99554
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :09/09/2016
Time :12:29:52 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	4	4D-XHD			149.95	599.80
		Sales Total				599.80
Cores Received	4	HVCORE				
		Sub Total				599.80
		Sub Total				599.80
		Invoice Total				599.80
		Invoice Payment Amount				0.00
		Nct Invoice				\$ 599.80

S97019
9/13/14

PRINT NAME HERE

SIGNATURE

Jeffrey Kemp

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MESILLA PARK NM 88047
(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :763114
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :08/16/2016
Time :10:33:30 AM

Type	Qty	Part Number	Desc	Age	Rate	Price	Amount
Sale	2	4D-XHD				149.95	299.90
Sale	6	C24-XHD				80.95	485.70
Sale	2	MT-24F				79.16	158.32
		Sales Total					943.92
Cores Received	8	ATCORE					
Cores Received	2	HVCORE					
		Sub Total					943.92
		Invoice Total					943.92
		Invoice Payment Amount					0.00
		Net Invoice					\$ 943.92

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SEP - 8 2016

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DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :763700
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :08/09/2016
Time :9:25:42 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	6	6TL			149.95	899.70
		Sales Total				899.70
Cores Received	6	LTCORE				
		Sub Total				899.70
		Invoice Total				899.70
		Invoice Payment Amount				0.00
		Net Invoice				\$ 899.70

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RECEIVING/PURCHASING

SEP - 8 2016

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SIGNATURE

NOVAK INC DBA INTERSTATE BATTERY OF LAS CRUCES
P.O. BOX 774
MESILLA PARK NM 88047
(575) 524-4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575) 679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :763752
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :07/29/2016
Time :4:46:30 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	1	29H-VHD			86.95	86.95
Sale	2	31-ECL			98.95	197.90
Sale	2	4D-XHD			149.95	299.90
		Sales Total				584.75
Cores Received	2	HVCORE				
Cores Received	3	LTCORE				
		Sub Total				584.75
		Invoice Total				584.75
		Invoice Payment Amount				0.00
		Net Invoice				\$ 584.75

COPY SENT TO:
RECEIVING/PURCHASING

SEP - 8 2016

REQUEST RECEIVING RECORD

PRINT NAME HERE _____

SIGNATURE _____

NOVAK INC DBA INTERSTATE BATTERIES OF LAS CRUCES
P.O.BOX 774
MESILLA PARK NM 88047
(575) 524-4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :98606
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97029
Date :07/06/2016
Time :8:00:12 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	20	6TL			149.95	2,999.00
		Sales Total				2,999.00
Cores Received	20	LTCORE				
		Sub Total				2,999.00
		Sub Total				2,999.00
		Invoice Total				2,999.00
		Invoice Payment Amount				0.00
		Net Invoice				\$ 2,999.00

597019
7/11/16

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SIGNATURE

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P.O.BOX 774
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(575) 524 - 4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :98255
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S97019
Date :06/07/2016
Time :9:15:34 AM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	4	C24-XHD			80.95	323.80
		Sales Total				323.80
Cores Received	4	ATCORE				
		Sub Total				323.80
		Sub Total				323.80
		Invoice Total				323.80
		Invoice Payment Amount				0.00
		Net Invoice				\$ 323.80

S97019
6/13/16

PRINT NAME HERE _____

SIGNATURE _____

NOVAK INC DBA INTERSTATE BATTERY OF LAS CRUCES
P.O. BOX 774
MESILLA PARK NM 88047
(575) 524-4327



Page: 1

DEALER NBR. 191
TRAX INTERNATIONAL LLC
BLDG 1538
WHITE SANDS MISSILE RANGE NM 88002
(575)679-8190
Payment Type: CHARGE ACCOUNT

Invoice Nbr :96450
Location of Sale :W01
Sales Person Name :JOSEPH NOVAK
Sales Person Nbr :JPN
PO Number :S89365
Date :01/04/2016
Time :1:06:17 PM

Type	Qty	Part Number/Desc	Age	Rate	Price	Amount
Sale	2	4D-XHD			149.95	299.90
Sale	4	SP-22NF			52.95	211.80
Sale	4	31-ECL			98.95	395.80
Sale	4	29H-VHD			86.95	347.80
Sales Total						1,255.30
Cores Received	4	ATCORE				
Cores Received	2	HVCORE				
Cores Received	8	LTCORE				
Sub Total						1,255.30
Sub Total						1,255.30
Invoice Total						1,255.30
Invoice Payment Amount						0.00
Net Invoice						\$ 1,255.30

597019
3/10/16

PRINT NAME HERE

Jeffrey Kemp

SIGNATURE

JMK

MEMORANDUM FOR ADMINISTRATIVE FILE

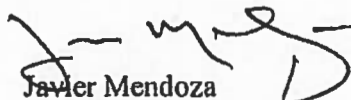
SUBJECT: White Sands Missile Range (WSMR) Requirements for 1) Spill Prevention Control and Countermeasures Plan (SPCC) and 2) Facility Response Plan (FRP) per 40 CFR §112

1. It has been determined that a SPCC or FRP is not required as outlined in 40 CFR 112. WSMR does not meet the conditions as described in the regulation and the *Certification of Applicability Substantial Harm Criteria*.
2. 40 CFR §112 requirements for a facility to maintain a SPCC Plan and a FRP are as follows, with a WSMR Determination:

40 CFR §112 Condition for SPCC/FRP	WSMR Determination
Before a facility is subject to the SPCC rule, it must meet three criteria: 1) it must be non-transportation-related; 2) it must have an aggregate aboveground storage capacity greater than 1,320 gallons or completely buried storage capacity greater than 42,000 gallons; and 3) there must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines. Facility causes substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.	Condition one is met. Condition two is met. Condition three does not apply. 'Based on the understanding of the technical aspects of surface waters located within the boundaries of WSMR, surface waters on WSMR all lie within a closed basin or basins and do not connect naturally or artificially with truly navigable waters of the United States.' (attachment 1). Since condition three does not apply WSMR is not subject to maintaining a SPCC plan.
Before a facility is subject to the FRP requirement, it must meet two criteria: Does the Facility transfer oil over water to or from vessels <u>and</u> does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?	Condition one does not apply. Condition two is met. Since WSMR does not meet both conditions, WSMR is not subject to maintaining a FRP.
Before a facility is subject to the FRP requirement, it must meet this criteria: Facility total oil storage capacity is greater than or equal to 1 million gallons	Condition does not apply. WSMR oil storage capacity is at 374,200 gallons (August 2012 inventory (attachment 2)). WSMR is not subject to maintaining a FRP.
The Regional Administrator may require a FRP after considering all factors identified in 40 CFR §112.20(b)(1).	No request has been made from the Regional Administrator for an FRP.

3. This *Memorandum for Administrative File*, the *Certification of the Applicability of the Substantial Harm Criteria*, with supporting documentation (40 CFR 112.20, 40 CFR Pt.112, App. C (*Flowchart of Criteria for Substantial Harm*), WSMR Bulk Fuel Storage Tanks Inventory, and a legal review (JA) memo on waters of the U.S. on White Sands Missile Range, will be placed in the WSMR Environmental Administrative file for future reference.

5. The Point of Contact for this memorandum is Javier Mendoza, PW-E-EC, POL Program Manager, (575) 678-2225.


Javier Mendoza
POL Program Manager

Certification of the Applicability of Substantial Harm Criteria

Facility Name U.S. Army, White Sands Missile Range

Facility Address US Highway 70

White Sands Missile Range, NM 88002-5000

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____

No ✓

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?

Yes _____

No ✓

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes _____

No ✓

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake?

Yes _____

No ✓

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable spill in an amount greater than or equal to 10,000 gallons within the last five years.

Yes _____

No ✓

If a facility answers "Yes" to any of the above questions, the facility must prepare a "Facility Response Plan" (FRP) according to 40 CFR 112.20.

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate and complete.

Signature



Title

Chief, Environmental Division

Name (print or type)

Jose A. Gallegos

Date

3 OCT 2012

Approved for public release, limited distribution to EPA/NMED, OPSEC Reviewed 3 APR 2018

Certification of the Applicability of the Substantial Harm Criteria

Environmental Protection Agency

§ 112.20

resubmit revised portions of the response plan within 60 days of each facility change that materially may affect the response to a worst case discharge, including:

(i) A change in the facility's configuration that materially alters the information included in the response plan;

(ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;

(iii) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;

(iv) A material change in the facility's spill prevention and response equipment or emergency response procedures; and

(v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

(3) The owner or operator of a facility that submits changes to a response plan as provided in paragraph (d)(1) or (d)(2) of this section shall provide the EPA-issued facility identification number (where one has been assigned) with the changes.

(4) The Regional Administrator shall review for approval changes to a response plan submitted pursuant to paragraph (d)(1) of this section for a facility determined pursuant to paragraph (f)(3) of this section to have the potential to cause significant and substantial harm to the environment.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that the facility could not, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable

waters or adjoining shorelines, the owner or operator shall complete and maintain at the facility the certification form contained in Appendix C to this part and, in the event an alternative formula that is comparable to one contained in Appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f)(i) A facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (a)(2) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in Attachment C-1 to Appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

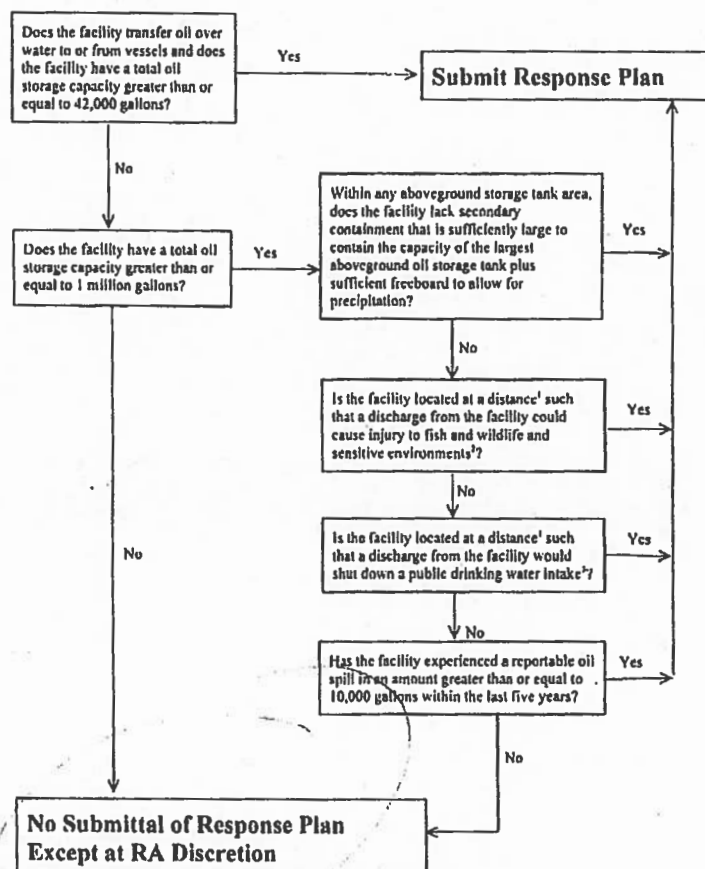
(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground oil storage tank within each storage area plus sufficient freeboard to allow for precipitation;

(B) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III of the "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable

ATTACHMENTS TO APPENDIX C

Attachment C-1

Flowchart of Criteria for Substantial Harm



¹ Calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula.

² For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and vessel response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

³ Public drinking water intakes are analogous to public water systems as described at CFR 143.2(c).

OVERHEAD BULK FUEL STORAGE TANKS ASSIGNED TO POL

TANK# & FUEL TYPE	LOCATION & BLDG #	FUEL CAP
-------------------	-------------------	----------

WHITE SANDS MISSILE RANGE POL BLDG # 1719

1. UNLEADED GAS	6,000 GLS
2. UNLEADED GAS	6,000 GLS
3. UNLEADED GAS	6,000 GLS
4. DIESEL LOW SULFUR	6,000 GLS
5. DIESEL LOW SULFUR	6,000 GLS
6. DIESEL LOW SULFUR	6,000 GLS
8. UNLEADED GAS	25,000 GLS
9. UNLEADED GAS	25,000 GLS
10. AVIATION FUEL (JP-8)	25,000 GLS
11. DIESEL LOW SULFUR	25,000 GLS
12. DEISEL LOW SULFUR	25,000 GLS
13. DIESEL LOW SULFUR	25,000 GLS

RHODES CANYON POL BLDG#30725

1. UNLEADED GAS	25,000 GLS
2. DIESEL LOW SULFUR	25,000 GLS

STALLION POL BLDG# 34203

1. UNLEADED GAS	25,000 GLS
2. DIESEL LOW SULFUR	25,000 GLS
3 AVIATON FUEL (JP-8)	5,000 GLS
4. AVIATION FUEL (JP-8)	5,000 GLS

TRUCKS ASSIGNED TO POL

WHITE SANDS MISSILE RANGE POL

JP8 (Aviation Fuel)

TRK 60203	5,000 GLS
TRK W04505T	6,000 GLS
TRK G90-0037F	3,000 GLS
TRK G90-0037F	3,000 GLS
TRK G90-0038F	3,000 GLS
TRK G90-0097H	3,000 GLS

OVERHEAD BULK FUEL STORAGE TANKS ASSIGNED TO POL

MUR (Unleaded Regular)

TRK 1970	1200.00 GLS
TRK 60200	5000.00 GLS

LS2 (Diesel)

TRK G90-0027D	1,200 GLS
TRK 60201	5,000 GLS
TRK WO40585	2,000 GLS

STALLION POL

JP8 (Jet Fuel)

TRK 60206	5,000 GLS
TRK G90-0039F	2,000 GLS

MUR (Unleaded Regular)

TRK 1294	1,200 GLS
----------	-----------

LS2 (Diesel)

TRK G90-0040F	2,000 GLS
---------------	-----------

AAFES GAS STATION WSMR -Bldg #270

1. UNLEADED GAS	10,000 GLS
2. UNLEADED GAS	10,000 GLS

NASA - AIR FORCE AD-SW NASA Bldg # 10

1. DIESEL FUEL	10,000 GLS
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600 (Gal) POL FUEL POD INVENTORY

678 2858

BC											
TANK	TANK S/N	ATEC #	TRL TAG #	OUT	RETURNED	PROJECT	LOCATION	WRITE UP	DATE FIXED	JOB NO.	INSP. DUE
1		WS02213	WO4491T	7/20/2009		FCS	B 90125				
2		WS02214	WO4492T	6/9/2011		SHADOW	CONDRON				
3		WS02215	WO4493T				POL/YARD				
4		WS02216	WO4494T	5/11/2011		SV	EMRY				
5		WS02540	WO4569T	5/13/2012		OTC/NIE	NIE MOTOR POOL				
6		WS02541	C23149	3/15/2012		MMTF	ZUMWALT				
7		WS02542	WO4571T				POL/YARD				
8		WS02543	WO4572T				POL/YARD				
9		WS02544	WO4573T	4/13/2012		OTC/NIE	NIE MOTOR POOL				
10		WS52085	WO4512T	7/20/2009		FCS	B 90125				
11		WS52086	WO4474T	6/15/2011		NAVY	GFIBS 649 WIT				
12		WS52087	WO4510T				POL/YARD				
13		WS52088	WO4473T	4/13/2012		OTC/NIE	NIE MOTOR POOL				
14		WS52089	WO4475T	9/16/2011		JLENS	RR252&259				
15		WS52090	WO4511T				POL/YARD				
16		DOL50062	WO4563T				POL/YARD				
17		DOL50063	WO4560T				POL/YARD				
18		DOL50064	WO5665T				POL/YARD				
19		DOL50067	WO4566T	6/9/2011			SHADOW				



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
OFFICE OF THE STAFF JUDGE ADVOCATE
U.S. ARMY WHITE SANDS MISSILE RANGE
BUILDING 124, CROZIER STREET, ROOM 113
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002-5000

2 April 2012

IMWS-JA

MEMORANDUM FOR Director, Environmental Management Directorate

SUBJECT: Applicability of Waters of the US on White Sands Missile Range.

1. ISSUE: You have asked for a legal analysis regarding navigable waters or jurisdictional waters of the United States on White Sands Missile Range (WSMR). Based on current law and the isolated nature of surface waters on WSMR, under the current legal definition of waters of the United States there are no jurisdictional waters on WSMR. This analysis, however, should be determined on a case-by-case basis and depends on both technical information and legal definitions. Thus, this opinion should be reconsidered if there are changes to the law or the technical relationship of any surface waters.

2. FACTS:

a. Based on my understanding of the technical aspects of surface waters located within the boundaries of WSMR, surface waters on WSMR all lie within a closed basin or basins and do not connect naturally or artificially with truly navigable waters of the United States.¹

b. It is well known that the geological and hydrological conditions at WSMR place the installation in an area located entirely within a closed geologic basin. In fact, it is the unique features of the geological basin containing WSMR that accounts for the development of white gypsum sands that make up the White Sands National Monument. Therefore, White Sands National Monument is additional evidence that discharges at WSMR do not have the possibility of affecting "waters of the US" as defined under the Clean Water Act (CWA) and the US Supreme Court decision in *Solid Waste Agency of Northern Cook County (SWANCC)*.²

c. Additionally, it is well established that, Congress has not waived sovereign immunity as to state groundwater protection regulation and absent an express waiver of sovereign immunity, the activities of the Federal government are free from regulation by any State.³ Further, any waiver of sovereign immunity must be unequivocal and sovereign immunity must be construed

1 "The Tularosa Basin is a closed, surface-water basin system, with no outlet." *White Sands Missile Range, Integrated Natural Resources Management Plan*, at page 236 (Nov. 2001), see also pages 67-68 and 86; "... no wetlands within WSMR are subject to regulatory authority." *White Sands Missile Range, Range-Wide Environmental Impact Statement*, §3.7.6, at page 3-66 (Nov 2009); "... resources within WSMR drain into isolated basins which are not classified as navigable waters (i.e., are non jurisdictional under Section 404 of the Clean Water Act), *White Sands Missile Range, Range-Wide Environmental Impact Statement*, §4.7.3.1.2.1, at page 4-74 (Nov 2009).

2 *Solid Waste Agency of Northern Cook County v. United States Corps of Engineers*, 531 US 159 (2001).

3 *Mayo v. United States*, 319 US 441, 445 (1943).

IMWS-JA

SUBJECT: Applicability of Waters of the US on White Sands Missile Range.

strictly in favor of the sovereign and not enlarged beyond what the language requires.⁴ Thus, because, groundwater is not a protected water under the CWA, the waiver of sovereign immunity under the CWA does not extend to ground water regulation by the state of New Mexico.

3. DISCUSSION:

a. The CWA defines the term "navigable waters" as . . . waters of the United States, including the territorial seas.⁵ The Code of Federal Regulations expands the definition by defining waters of the United States as:

- (a)(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (a)(2) All interstate waters including interstate wetlands;
- (a)(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters;
- (a)(3)(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
- (a)(3)(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- (a)(3)(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
- (a)(4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (a)(5) Tributaries of waters identified in ¶(a)(1) through (a)(4) of this section;
- (a)(6) The territorial seas;
- (a)(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in ¶¶ (a)(1) through (a)(6) of this section;
- (a)(8) Waters of the United States do not include prior converted cropland.

Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

b. In SWANCC, the Supreme Court ruled that the portion of 33 CFR §328.3 that attempted to extend Corps jurisdiction over waters of the United States to intrastate waters that " . . . are or would be used as habitat by birds protected by Migratory Bird Treaties . . ." was invalid. *Id.* at 174. Thus, Intrastate waters or wetlands that are **not** or **have never been** actually navigable, or that are **not** tributaries or adjacent to such waters, or the destruction of which would **not** affect interstate or foreign commerce, are not within the jurisdiction of the CWA. (emphasis added).

⁴ *Department of Energy v. Ohio*, 503 US 607, 615 (1992).

⁵ *Rice v. Harken Exploration Co.*, 250 F.3d 264, 269 (5th Cir 2001); *Village of Oconomowoc Lake v. Dayton Hudson Corp.*, 24 F.3d 962, 965 (7th Cir. 1994. Cert. denied); *Exxon Corp. v. Train*, 554 F.2d 1310, 1322 (5th Cir. 1977).

⁶ 33 USC § 1362(7) [CWA § 502(7)].

IMWS-JA

SUBJECT: Applicability of Waters of the US on White Sands Missile Range.

c. The SWANCC Court did not overturn an earlier case, *United States v. Riverside Bayview Homes, Inc.*, 474 US 121 (1985). In *Riverside*, the Court found that the Corps of Engineers was entirely within its statutory authority to regulate wetlands adjacent to other bodies of water over which the Corps had jurisdiction. *Id.* at 133-34. The Court, however, specifically refused to address whether the Corps could legally regulate the discharge of fill material into wetlands that are not adjacent to bodies of open water. *Id.* at 131, Footnote 8.

d. It is clear from the two decisions and the hesitance of the Corps or EPA to amend the definition of waters of the United States,⁷ that the question of the extent of navigable waters that fall within the broad scope of the CWA as granted by Congress under the commerce clause of the Constitution has not yet been comprehensively determined. It is also clear that the Corps and EPA regulations may no longer include as waters of the United States intrastate waters that only qualified because of the presence of migratory birds. Whether other determinations based on the broad scope of Congress' commerce powers will stand or fall, will depend on the specific facts of future cases.

4. CONCLUSION: If there is no surface water connection between the isolated waters within WSMR and other navigable waters, the waters do not meet the definition of navigable waters or waters of the United States and are not subject to CWA authority. Additionally, the New Mexico groundwater Protection regulations are not an enforcement program for the CWA. Thus, federal statutes and caselaw dictated that:

1. Ground water is not a protected "waters of the United States" under the CWA.
2. The unique physical geology and hydrology of WSMR prohibit applicability of the CWA as it applies to "waters of the United States."
3. Congress has not waived sovereign immunity as it pertained to groundwater discharges as regulated under the New Mexico Groundwater Protection Regulations.

If a question arises as to the characteristics of a particular body of water or wetland, or if the Supreme Court further interprets Corps or EPA guidance, we should reevaluate the classification of waters on WSMR under the CWA.



INDIA S. NICHOLSON
Attorney-Advisor

⁷ "EPA and Army Corps Issue Wetlands Decision" Press Release, (12/16/2003). "EPA and the Corps announced that they would not issue a new rule on federal regulatory jurisdiction over isolated wetlands."

APPENDIX 3

Redacted