

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

inspection Date(s):	January 16-18, 2024	
Media Program:	RCRA	
Regulatory Program(s)	Small Quantity Generator	
Company Name:	K-Solv	
Facility Name:	K-Solv Chemical Distribution and Maritime Services	
Facility Physical Location:	1007 Lakeside Drive	
(City, State, Zip Code)	Channelview, Texas 77530	
Mailing address:	1007 Lakeside Drive	
(City, State, Zip Code)	Channelview, Texas 77530	
County/Parish:	Harris County	
Facility Phone Number		
Facility Contact:	Bernard Nelson	Environmental Manager
	bnelson@ksolv.com	
FRS Number:	110031302365	
Identification/Permit Number:	NA	
Media Identifier Number:	RCRA ID: TXR000068908	
NAICS:	424690 - Other Chemical and Allied Products Merchant Wholesalers	
SIC:		
Personnel participating in inspection:		
John Penland	USEPA Region 6 (ECDSR)	Senior Environmental Scientist - Inspector
Jhamila Perrier	TCEQ Region 12	Hazardous Waste Investigator
Gary Weatherly	K-Solv	Executive Vice President - Operations
Bernard Nelson	K-Solv	Registered Environmental Manager
Kodi Scott	K-Solv	Compliance Coordinator
Tracey Simeon	K-Solv	
Beau McDonald	K-Solv	
Paul Pentecost	AARC Group	EHS Manager
EPA Lead Inspector Signature/Date		
	John Penland – Senior Environmental Scientist (ECDSR)	Date
Supervisor Signature/Date		
	Debra Pandak – Section Chief (ECDSR)	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

During the week of January 16, 2024, I, John Penland, conducted an unannounced inspection of the K-Solv Chemical and Maritime Services facility (K-Solv) located at 1007 Lakeside Drive in Channelview, Texas, for compliance with the Resource Conservation and Recovery Act (RCRA). I was accompanied on this inspection by Texas Commission on Environmental Quality (TCEQ) investigator Jhamila Perrier. The inspection included walkthroughs of the facility's hazardous waste generation and management units and a review of the facility records related to solid and hazardous waste management.

The K-Solv facility was targeted for inspection as part of the EPA Region 6's evaluation of chemical container cleaning operations in response to EPA's November 2022 Drum Reconditioner Damage Case Report. This inspection was also conducted as a follow-up to EPA's December 6, 2023, inspection of the K-Solv facility as part of Region 6's evaluation of ports and maritime support operations.

FACILITY DESCRIPTION

The K-Solv Channelview facility is home to two distinct operations: chemical distribution and maritime services.

K-Solv Chemical Distribution operates container and tank storage units for the blending and distribution of commercial chemical products. These products are received as heels from barges cleaned by the Barge Services group, bought as off-specification heels from other container cleaning operations, or bought as off-specification or virgin product from chemical manufacturers. Wastes routinely generated in the chemical storage and distribution process include methanol contaminated rinse water for flushing transfer equipment, contaminated filter bags from product filtering, contaminated rags and personal protective equipment (PPE), polymerized styrene, and glass laboratory waste.

K-Solv Maritime Services is hired to clean and conduct maintenance on chemical barges. The heels drained from this operation are transferred into containers or frac tanks to be resold by the K-Solv Chemical Distribution group. Wastes routinely generated in this process include wastewater, rust and scale, and contaminated PPE.

The K-Solv facility currently notifies as a Small Quantity Generator of hazardous waste and is assigned the EPA ID: TXR000068908.

Section II – INSPECTION SUMMARY

January 16, 2024

We arrived at the K-Solv facility at approximately 10:15 a.m. Central Time and began the inspection with an opening conference. During this conference, we presented our credentials to Mr. Gary Weatherly and informed him that we were there to conduct an inspection of the facility under the authority of Section 3007 of RCRA. During this conference, we also discussed the purpose and scope of the inspection and notified them of the facility's right to assert a claim for Confidential Business Information for records collected during this inspection.

Following the opening conference, we conducted our walkthrough of the facility's process and storage areas. This walkthrough was focused on inspector orientation of the site. Due to extremely low temperatures, the facility was idle.

We departed the facility at approximately 12:15 p.m. Central Time.

For our detailed observations, inspection notes, and records request, see the Daily Summary for January 16, 2024, in Appendix 2.

January 17, 2024

We arrived at the facility at approximately 9:10 a.m. Central Time to begin our inspection day. We began the day with a more comprehensive walkthrough of the facility focusing on each of the facility process areas. During this walkthrough, we evaluated the facility's compliance with the hazardous waste container and tank standards as well as the facility's general duty to prevent releases of hazardous waste or hazardous constituents to the environment. Following this walkthrough, we discussed the facility's operating procedures and records management.

We concluded our inspection day at approximately 5:10 p.m. Central Time.

For our detailed observations, inspection notes, and records request, see the Daily Summary for January 17, 2023, in Appendix 2.

January 18, 2024

We arrived at the facility at approximately 9:00 a.m. Central Time to conduct a closing conference. During this conference, we summarized the inspection and presented our preliminary findings as described in Section III of this report. We concluded the closing conference at approximately 10:00 a.m. and departed the site.

Section III – PRELIMINARY FINDINGS

1.Documentation of Waste Determinations - 40 CFR 262.11(f)

Small quantity generators of hazardous waste are required to document and maintain records related to their hazardous waste determinations.

Alcohol Rinse Water – The facility generates this alcohol rinse water from the cleaning of equipment used to transfer or store alcohol products. This rinse is stored in 2 storage tanks prior to shipment for offsite disposal as a non-hazardous waste. However, this determination depends on procedural controls to ensure that the concentration of alcohol in the rinse water never exceeds the 24% limit set forth in the characteristic of ignitibility for hazardous waste (40 CFR 261.21). The facility has not been able to provide analytical documentation to verify adherence to this limit.

Product Filter bags – The facility generates spent filter bags from the filtration of various products. These bags are comingled with K-Solv's oily rags and wipes waste stream prior to shipment for offsite disposal as a nonhazardous waste. However, the bags are used to filter various products including some that

could result in the waste carrying in a hazardous waste characteristic. The facility has been unable to provide documentation showing that this waste is generated in a manner which would exclude potentially hazardous waste characteristics.

Rust and Scale – K-Solv generates rust and scale from the cleaning of product barges. This waste is accumulated in vacuum boxes prior to shipment for offsite disposal as nonhazardous waste. One analytical report was provided for this waste stream from a barge sampled on July 24, 2023. The sample results indicate that the sample is non-hazardous. However, this sample is a single grab from a larger batch of rust and scale from a barge where the last held contents were not indicated. Since this waste is generated by a batch process with a variety of potential contaminants, this single sample is insufficient for a more generally applicable waste determination.

Section IV – LIST OF APPENDICES

Appendix 1 – Photo Log

Appendix 2 – Daily Summary of Inspection Notes and Observations

APPENDIX 1

PHOTO LOG

Photo Number	File Name		Date	Time	Photographer	Description
1	P1170594	.JPG	17-Jan-24	1035	Jhamilla Perrier	Vacuum box used for the accumulation of Rust and Scale waste from barge cleaning. Tote used for emissions control (organic odor reduction) for wastewater storage tanks
2	P1170595	.JPG	17-Jan-24	1035	Jhamilla Perrier	Vacuum box used for the accumulation of Rust and Scale waste from barge cleaning. Tote used for emissions control (organic odor reduction) for wastewater storage tanks
3	P1170596	.JPG	17-Jan-24	1036	Jhamilla Perrier	Vacuum box used for the accumulation of Rust and Scale waste from barge cleaning. Tote used for emissions control (organic odor reduction) for wastewater storage tanks
4	P1170597	.JPG	17-Jan-24	1036	Jhamilla Perrier	Carbon Drums used for emissions control at barge cleaning area.
5	P1170598	.JPG	17-Jan-24	1045	Jhamilla Perrier	275-gallon tote of reacted styrene found in product storage area
6	P1170599	.JPG	17-Jan-24	1045	Jhamilla Perrier	275-gallon tote of reacted styrene found in product storage area
7	P1170600	.JPG	17-Jan-24	1046	Jhamilla Perrier	275-gallon tote of reacted styrene found in product storage area
8	P1170601	.JPG	17-Jan-24	1047	Jhamilla Perrier	275-gallon tote of reacted styrene found in product storage (second)
9	P1170602	.JPG	17-Jan-24	1048	Jhamilla Perrier	275-gallon tote of reacted styrene found in product storage area (second)
10	P1170603	.JPG	17-Jan-24	1051	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
11	P1170604	.JPG	17-Jan-24	1051	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.

Photo Number	File Name		Date	Time	Photographer	Description
12	P1170605	.JPG	17-Jan-24	1052	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
13	P1170606	.JPG	17-Jan-24	1052	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
14	P1170607	.JPG	17-Jan-24	1052	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
15	P1170608	.JPG	17-Jan-24	1052	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
16	P1170609	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
17	P1170610	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
18	P1170611	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
19	P1170612	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
20	P1170613	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
21	P1170614	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.
22	P1170615	.JPG	17-Jan-24	1053	Jhamilla Perrier	Frac Tanks used for the accumulation of petroleum distillate heels and oil from barge cleaning.

Photo Number	File Name		Date	Time	Photographer	Description
23	P1170616	.JPG	17-Jan-24	1055	Jhamilla Perrier	Totes labeled Bottoms/Solids Petroleum Distillates in product storage area
24	P1170617	.JPG	17-Jan-24	1055	Jhamilla Perrier	Totes labeled Bottoms/Solids Petroleum Distillates in product storage area
25	P1170618	.JPG	17-Jan-24	1055	Jhamilla Perrier	Tote Labeled Line Flush in product storage area
26	P1170619	.JPG	17-Jan-24	1102	Jhamilla Perrier	Hazardous waste container accumulation area located outside of QA laboratory.
27	P1170620	.JPG	17-Jan-24	1102	Jhamilla Perrier	Hazardous waste container accumulation area located outside of QA laboratory.
28	P1170621	.JPG	17-Jan-24	1102	Jhamilla Perrier	Hazardous waste container accumulation area located outside of QA laboratory.
29	P1170622	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
30	P1170623	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
31	P1170624	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
32	P1170625	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area

Photo Number	File Name		Date	Time	Photographer	Description
33	P1170626	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
34	P1170627	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
35	P1170628	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
36	P1170629	.JPG	17-Jan-24	1103	Jhamilla Perrier	label close up on containers in hazardous waste accumulation area located outside lab. Totes are not hazardous waste but lab samples being returned to the product area
37	P1170630	.JPG	17-Jan-24	1108	Jhamilla Perrier	View of product storage area from QA lab hazardous waste accumulation area
38	P1170631	.JPG	17-Jan-24	1110	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
39	P1170632	.JPG	17-Jan-24	1110	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
40	P1170633	.JPG	17-Jan-24	1110	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
41	P1170634	.JPG	17-Jan-24	1110	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
42	P1170635	.JPG	17-Jan-24	1110	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
43	P1170636	.JPG	17-Jan-24	1111	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility

Photo Number	File Name		Date	Time	Photographer	Description
44	P1170637	.JPG	17-Jan-24	1111	Jhamilla Perrier	Hazardous waste container accumulation area located on North end of facility
45	P1170638	.JPG	17-Jan-24	1112	Jhamilla Perrier	Newly reconstructed container storage area on west side of Lakeside Drive
46	P1170639	.JPG	17-Jan-24	1112	Jhamilla Perrier	Newly reconstructed container storage area on west side of Lakeside Drive
47	P1170640	.JPG	17-Jan-24	1114	Jhamilla Perrier	Product Containers stored in new container storage area
48	P1170641	.JPG	17-Jan-24	1114	Jhamilla Perrier	Product Containers stored in new container storage area
49	P1170642	.JPG	17-Jan-24	1114	Jhamilla Perrier	Product Containers stored in new container storage area
50	P1170643	.JPG	17-Jan-24	1114	Jhamilla Perrier	Product Containers stored in new container storage area
51	P1170644	.JPG	17-Jan-24	1115	Jhamilla Perrier	Product Containers stored in new container storage area
52	P1170645	.JPG	17-Jan-24	1115	Jhamilla Perrier	Product Containers stored in new container storage area
53	P1170646	.JPG	17-Jan-24	1115	Jhamilla Perrier	Product Containers stored in new container storage area
54		.JPG				
55		.JPG				
56		.JPG				
57		.JPG				
58		.JPG				
59		.JPG				
60		.JPG				
61		.JPG				
62		.JPG				
63		.JPG				
64		.JPG			John Penland	



Photo # 1



Photo # 2



Photo # 3



Photo # 4



Photo # 5



Photo # 6



Photo # 7



Photo # 8



Ksoliv NA 1993

1993
3

REJECTED
12-14-23

300
75
200



REJECTED
12-14-23

NOT REGULATED

MAUSER
RELEASE CERTIFICATE

MAUSER
EMPTY PACKAGING

transp
650 kg max

Photo # 9



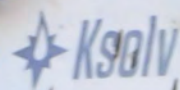
Photo # 10



Photo # 11



Photo # 12



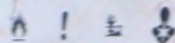
Petroleum Distillates

UN 1268

RC Petroleum Distillates, N.O.S., 3, PGII

Product #

HAZARD



Warning Statements

Extremely flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation. May cause dizziness or drowsiness. For information on handling, see SDS.

Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Do not use open flame. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilation, or other equipment. Use only non-sparking tools. Take precautionary measures to prevent static discharge. Avoid breathing dust/fume/gas/aerosol/vapors. Use only outdoors or in a well-ventilated area. Do not release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. If SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If ON SKIN (or hair): Remove/soak off contaminated clothing. Rinse skin with water or shower. If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs, get medical advice/attention. If inhaled: Get fresh air. If you feel unwell, do NOT drive. Keep container tightly closed. Store in a well-ventilated place. Keep container closed up. Dispose of contents/container to (see separate international regulations).

Lot Number: FRAC 11.13.22

Net Weight:

STOCK

LBS

K Solv Chemicals, LLC

10000 S. Highway 100

Houston, TX 77055

Phone: 281-584-6464

See Chemical Safety Data Sheet (SDS) for additional information. See SDS for additional information.

Version

A6359B

T

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F

Photo # 14

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27 / 28 / 29



ADLER TANKS

7822 W PORT AURTHUR RD
BEAUMONT, TEXAS 77705

TANK MEASUREMENT CHART (+/- 3% Accuracy)
Measurements taken from the top manway location @ Center Line of Tank
Model: FT-452 (21,000 Gal. Frac Tank) NOTE: 1 BBL = 42 U.S. Gallons

Height (in.)	Capacity (GAL.)	Capacity (BBL)	Height (in.)	Capacity (GAL.)	Capacity (BBL)	Height (in.)	Capacity (GAL.)	Capacity (BBL)	Height (in.)	Capacity (GAL.)	Capacity (BBL)
1	28.3	.67	32	5372.7	127.9	63	11182.9	266.3	94	16990.0	404.5
2	113.2	2.7	33	5566.3	132.1	64	11375.0	270.8	95	17174.1	408.9
3	254.8	6.1	34	5719.7	136.2	65	11566.9	275.4	96	17358.2	413.3
4	435.5	10.4	35	5882.9	140.3	66	11758.6	280.0	97	17542.3	417.7
5	613.0	14.6	36	6055.8	144.4	67	11950.1	284.5	98	17726.4	422.1
6	790.4	18.8	37	6238.5	148.5	68	12141.3	289.1	99	17910.5	426.4
7	967.9	23.0	38	6411.0	152.6	69	12323.1	293.6	100	18094.6	430.8
8	1145.4	27.3	39	6583.2	156.7	70	12513.1	298.2	101	18278.7	435.2
9	1322.8	31.5	40	6755.6	160.8	71	12713.7	302.7	102	18462.8	439.6
10	1500.3	35.7	41	6934.1	165.1	72	12904.0	307.2	103	18646.9	444.0
11	1677.7	39.9	42	7115.6	169.4	73	13094.4	311.8	104	18831.0	448.4
12	1855.2	44.2	43	7301.8	173.9	74	13284.8	316.3	105	19015.1	452.7
13	2032.6	48.4	44	7492.0	178.4	75	13475.2	320.8	106	19197.7	457.1
14	2210.1	52.6	45	7686.4	183.0	76	13665.6	325.4	107	19377.5	461.4
15	2387.5	56.8	46	7882.5	187.7	77	13856.0	329.9	108	19554.5	465.6
16	2564.9	61.1	47	8078.5	192.3	78	14046.4	334.4	109	19728.8	469.7
17	2742.0	65.3	48	8274.2	197.0	79	14236.8	338.8	110	19900.2	473.8
18	2919.0	69.5	49	8469.4	201.7	80	14426.6	343.2	111	20068.9	477.8
19	3095.7	73.7	50	8664.9	206.3	81	14616.7	347.5	112	20234.7	481.8
20	3272.2	77.9	51	8859.9	211.0	82	14780.0	351.9	113	20397.8	485.7
21	3448.5	82.1	52	9054.7	215.6	83	14954.9	356.3	114	20556.1	489.5
22	3624.5	86.3	53	9249.3	220.2	84	15149.0	360.7	115	20715.6	493.2
23	3800.3	90.5	54	9443.7	224.8	85	15333.1	365.1	116	20870.3	496.9
24	3975.9	94.7	55	9637.8	229.5	86	15517.2	369.5	117	21022.2	500.5
25	4151.3	98.8	56	9831.7	234.1	87	15701.3	373.8	118	21171.4	504.1
26	4326.5	102.8	57	10025.4	238.7	88	15885.4	378.2	119	21317.7	507.6
27	4501.4	107.2	58	10218.9	243.3	89	16069.5	382.6	120	21461.2	511.0
28	4676.1	111.3	59	10412.1	247.9	90	16253.6	387.0	121	21602.0	514.3
29	4850.6	115.5	60	10605.1	252.5	91	16437.7	391.4	122	21740.0	517.6
	5024.5	119.6	61	10797.9	257.1	92	16621.8	395.8	123	21875.1	520.8
	5198.9	123.8	62	10989.5	261.7	93	16805.9	400.1			



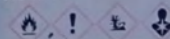
Petroleum Distillates

UN 1268

RQ, PETROLEUM DISTILLATES, N.O.S., 3, PGII

Product # 1300 (as per the UN 1268)

DANGER!



Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment, etc. Use only non-sparking tools. Take precautionary measures to prevent static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. If SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water or shower. If IN EYES: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER or a doctor/physician if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention in case of fire. Use: ... to extinguish. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container to: local/regional/national/international regulations.

Lot Number: FRAC // 1.13.22

Net Weight: STOCK





96	17174.1	408.8
97	17358.2	413.3
98	17542.3	417.7
99	17726.4	422.1
100	17910.5	426.4
101	18094.6	430.8
102	18278.7	435.2
103	18462.8	439.6
104	18646.9	444.0
105	18831.0	448.4
106	19015.1	452.7
107	19199.2	457.1
108	19383.3	461.5
109	19567.4	465.9
110	19751.5	470.3
111	19935.6	474.7
112	20119.7	479.1
113	20303.8	483.5
114	20487.9	487.9
115	20672.0	492.3
116	20856.1	496.7
117	21040.2	501.1
118	21224.3	505.5
119	21408.4	509.9
120	21592.5	514.3
121	21776.6	518.7
122	21960.7	523.1

HAZARD!

Precautionary Statements

Extremely flammable liquid and vapor. May be fatal if inhaled and enters airways. Causes skin irritation. May cause respiratory irritation. May cause dizziness or drowsiness. Toxic to aquatic life with long lasting effects.

Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment, etc. Use only non-sparking tools. Take precautionary measures to prevent static discharge. Avoid breathing dust/fume/gas/mist/spray/vapor. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Other protective measures: wear protective gloves/protective clothing/protective equipment. Use only outdoors or in a well-ventilated area. If inhaled: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER or a doctor/hospital if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. In case of eye contact: Rinse skin with water or shower. If swallowed: Rinse mouth with water. Call a POISON CENTER or a doctor/hospital if you feel unwell. Do NOT breathe gas/vapor/fume/dust/smoke. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container to.

Lot Number: **FRAC # 1.13.22**

Net Weight: **STOCK**

DO NOT TOUCH

Photo # 16

T



37 / 28 / 29

ADLER TANKS



UN 1268

F

Photo # 17



Photo # 18

Product #
DANGER!

PETROLEUM CRUDE OIL, 3, PGII

number

Net Weight:

Maritime -

LB

(86-6) 576-534

Table 1

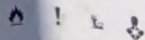


Photo # 20

Petroleum Distillates

Product #

DANGER!



Harvard University

Hazard Statements

Extremely flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Store in cool place. Store upright. Keep container tightly closed. Avoid contact with skin and eyes. Wear protective gloves. Wear eye protection. Wear respiratory protection. Dispose of contents and container in accordance with local regulations.

Proceedings Statement

[illegible]

Lot Number:

FRAC # 1.13.22

© 1994 Chemtec, Inc.

Net Weight: STOCK

LBS

Net Weight: STOCK

LBS



Photo # 22



Photo # 23



Photo # 24



Photo # 25



Photo # 26



Photo # 27



Photo # 28



4056 772 1655 540g 1650Pa

427D 919107
555227 RECOBULK RMX1000 ST A 050 0-5-5
W16352230 CHECKUP 8723 INSPECTION 8723 ATW05172

SCHÜTZ TICKET SERVICE

FREE Collection under the terms of the SCHÜTZ TICKET SERVICE

For information, registration, order options and environmental labeling for recycling go to www.schutz.net/ticket

Ksolv
Petroleum Distillates

UN 1268
RD PETROLEUM DISTILLATES N.O.S. 3 PGII

DANGER!

Flammable liquid
Corrosive
Hazardous to the environment

Keep away from heat, open flames, sparks, etc. Do not use in confined spaces. Do not breathe vapors. Do not get on skin or clothes. If on skin, wash with plenty of water. If in eyes, flush with plenty of water. Do not eat, drink or smoke. Do not use near fire or heat. Do not use in confined spaces. Do not use in areas where fire or heat is present. Do not use in areas where fire or heat is present. Do not use in areas where fire or heat is present.

Lot Number: 11.5.21

Net Weight: WASTE LBS

Transport
1650 kg max

SCHÜTZ
RECOBULK / RECOBULK

New Valve Safety System
Please follow instructions!

STEP 1
1. Push handle slightly
2. Lift yellow chip completely

STEP 2
Check if yellow chip is lifted completely

STEP 3
Push handle to reach valve



Barcode label with numbers: 387585 8135258 813 8263 968723

Service
FREE Collection
Call 1800 252 252
www.ksoil.com.au

427D 919107
555227/RECOBULK PMX1000/SI/A/058
WMS22203 CHECKUP 8723 INSPECTION 8723 4792977

Ksolv
Petroleum Distillates

DANGER!
Hazard symbols: GHS02, GHS03, GHS05, GHS06, GHS07, GHS08, GHS09, GHS10, GHS11, GHS12, GHS13, GHS14, GHS15, GHS16, GHS17, GHS18, GHS19, GHS20, GHS21, GHS22, GHS23, GHS24, GHS25, GHS26, GHS27, GHS28, GHS29, GHS30, GHS31, GHS32, GHS33, GHS34, GHS35, GHS36, GHS37, GHS38, GHS39, GHS40, GHS41, GHS42, GHS43, GHS44, GHS45, GHS46, GHS47, GHS48, GHS49, GHS50, GHS51, GHS52, GHS53, GHS54, GHS55, GHS56, GHS57, GHS58, GHS59, GHS60, GHS61, GHS62, GHS63, GHS64, GHS65, GHS66, GHS67, GHS68, GHS69, GHS70, GHS71, GHS72, GHS73, GHS74, GHS75, GHS76, GHS77, GHS78, GHS79, GHS80, GHS81, GHS82, GHS83, GHS84, GHS85, GHS86, GHS87, GHS88, GHS89, GHS90, GHS91, GHS92, GHS93, GHS94, GHS95, GHS96, GHS97, GHS98, GHS99, GHS100

UN 1268
PO. PETROLEUM DISTILLATES, N.O.S., 3, PGH

Transport
1650 kg max

Photo # 30

Methanol
Anti-freeze
IPA
HAN
WHB



Transport

1650 kg max



soliv
SOLV HAN

UN1268



un

31
405

PHONE CONTACTS

SCHÜTZ
TICKET



Photo # 33



Photo # 34



Ksolv
STYRENE
Product #
DANGER!
UN 2055
Styrene Monomer Stabilized 3, PG III
List Number: 11421 Net Weight: WASTE LBS

Transport
1650 kg max

MAUSER
RELEASE CERTIFICATE
This document certifies that the material has been released for use in accordance with the requirements of the relevant regulatory body.

Photo # 36



Photo # 37



Photo # 38



Photo # 39



Photo # 40



Photo # 41



Photo # 42



Photo # 43



Photo # 44



Photo # 45



Photo # 46



Photo # 47



Photo # 48



Photo # 49

CONDITIONED BY
MAUSER
Shipping Solutions
Schütz Container Systems
inner bottle manufactured
Shipping Solutions or its Licensee
conditioned this product and
sealed in any way with
each of the following:

31HA1/Y/07 23/USA/M4235/3800KG/2034KG/1041/56KG/100KPA/07 23/07 23

GROSS LBS: 2220

Aromatic Feedstock

DANGER

Combustible liquid. Harmful if swallowed. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Irritation of contact areas. May cause skin rashes. May cause long-term effects.

HA 1500: Combustible liquid, H 228; Harmful if swallowed, H 302; May be fatal if swallowed and enters airways, H 314; May cause drowsiness or dizziness, H 335; May cause skin rashes, H 336; May cause long-term effects, H 373.

HAZARD	Signal	Precautionary Statements
Flammable	F+ (H 228)	P201 + P202: Before use, read all safety precautions on label and container. Do not handle until all safety precautions have been read and understood. P231 + P232: Keep away from heat and hot surfaces. No smoking. P233: Avoid breathing dust, fumes, vapors. P235: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P501: When the container is emptied, dispose of contents in accordance with local regulations.
Health	H302 (H 335)	P201 + P202: Before use, read all safety precautions on label and container. Do not handle until all safety precautions have been read and understood. P273: Avoid release to the environment. P501: When the container is emptied, dispose of contents in accordance with local regulations.
Environment	H373 (H 374)	P201 + P202: Before use, read all safety precautions on label and container. Do not handle until all safety precautions have been read and understood. P273: Avoid release to the environment. P501: When the container is emptied, dispose of contents in accordance with local regulations.

First aid measures

General Advice	First aid measures
None	Remove from further exposure. For first aid, provide appropriate first aid measures. If necessary, consult a physician.
If inhaled	Remove person to fresh air. If breathing is difficult, use appropriate respiratory protection. If respiratory distress occurs, seek immediate medical attention. If breathing has stopped, ensure ventilation with a mechanical device or use mouth-to-mouth resuscitation.
In case of skin contact	Wash contact area with soap and water. Remove contaminated clothing before reuse.
In case of eye contact	Flush thoroughly with water. If irritation occurs, get medical attention. Seek immediate medical attention. Do not induce vomiting.
If ingested	No data available.
Most important symptoms and effects, both acute and delayed.	No data available.
Indication of any threshold medical attention and treatment needed.	If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.



RELEASE C

Pressure Tested By:



RECONDITIONED BY
MAUSER
 Packaging Solutions

Schütz Container Systems
 bottle manufactured
 its Licensee
 and

KAUSER
 RE-REFINED
 www.kauserpackaging.com
 REDEFINING OIL QUALITY

KAUSER RE-REFINING is a leading manufacturer of re-refined oil products. The company is committed to providing high-quality, sustainable lubricants that meet the needs of various industries. The label on the drum highlights the company's commitment to re-refining and its website, www.kauserpackaging.com.

31HA1Y/08-22/USA/MA603 3800KG/1722KG/1041L/56KG/100KPA/08-22/08-22

Aromatic Feedstock

DANGER

KBR World Markets, Inc.
 1000 Walnut Street
 Philadelphia, PA 19106
 Tel: 215-382-1000
 Fax: 215-382-1001
 E-mail: kbr@kbr.com

Combustible (e.g., flammable, oxidized), may be fatal if inhaled and
may irritate, may cause discomfort or distress if inhaled, may cause
irritation to the eyes, may irritate the skin, may irritate the respiratory system.

1997 Combustible Liquid, A.B.S. (Automotive) (Aerosols)
H227-Combustible liquid
H302-Harmful if swallowed; Acute Tox Oral Cat 3
H304-May be fatal if swallowed and enters deep
May cause drowsiness or dizziness
of causing harm. Acute Tox. Inhal Cat 1
of causing death Eye Irrit Cat 2
Acute Tox. Skin Irrit Cat 2

[illegible]

P201: Do not handle without gloves.
P202: Keep away from heat / open flames.
P203: Avoid breathing dust / vapors.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection.
P281: If SWALLOWED: Rinse mouth. Get medical advice immediately if you feel unwell.
P301+P312: IF SWALLOWED: Rinse mouth. Get medical advice immediately if you feel unwell.

Pre-Auditions
Statements

Order # 1234567890
Product # 1234567890
Product name: 1234567890
Product description: 1234567890
Product price: 1234567890



Control	Advice	Name
		From 8-9 months exposure to perching assistance, avoid pressure to prevent or delay. Use adequate support if necessary. If respiratory problems occur, discontinue exercise until all signs of distress are gone.

[illegible]

In case of skin contact	Wash with water and soap. Do not use solvents.
In case of eye contact	Wash with water for at least 15 minutes. Do not use solvents.
If ingested	Do not induce vomiting. Seek medical attention.
First aid symptoms and advice	See data sheet.

Most important side effects, both acute and chronic	If urgent, state the tempo and route of treatment appropriately
Indication of any abnormal medical attention and/or hospitalization required	



A red diamond-shaped fire hazard label is affixed to a dark surface. The label features a white flame symbol at the top, the number '1993' in large black digits in the center, and the number '3' in red at the bottom. The label is tilted slightly to the right. In the background, a white rectangular label with the number '22' is visible on the left, and a grey label with 'Trans' and '1650 kg' is partially visible on the right.

3



25





Photo # 53

APPENDIX 2

SUMMARY OF INPSECTION NOTES AND OBSERVATIONS

Penland, John

From: Penland, John
Sent: Tuesday, January 16, 2024 9:58 PM
To: gary@ksolv.com; Jhamila Perrier
Cc: Pandak, Debra (she/her/hers)
Subject: Daily Summary - January 16, 2024 - EPA RCRA Inspection of the Ksolv Chemicals and Maritime facility in Channelview, TX (TXR000068908)
Attachments: CBI_Notice_QandAs-12-14-20-final_version.pdf; General_CBI_Notice_12_2022.pdf

All,

Here is a summary of my notes from today's inspection. If there are any errors or omissions please let me know.

Introduction

During the week of June 26, 2023, I, John Penland, will be conducting an unannounced inspection of the Ksolv Chemical and Maritime Services facility (Ksolv) located at 1007 Lakeside Drive in Channelview, Texas, for compliance with the Resource Conservation and Recovery Act (RCRA). I will be accompanied on this inspection by Texas Commission on Environmental Quality (TCEQ) investigator Jhamila Perrier. The inspection will include walkthroughs of the facility's hazardous waste generation and management units and a review of the facility records related to solid and hazardous waste management.

Purpose

The Ksolv facility was targeted for inspection as part of the Region 6's evaluation of chemical container cleaning operations in response to EPA's November 2022 *Drum Reconditioner Damage Case Report*. This inspection is also being conducted as a follow-up to EPA's December 6, 2023 inspection of the Ksolv facility as part of Region 6's evaluation of ports. This December investigation determined that the Ksolv facility was not a port under that initiative.

Name	Title	Representing	Phone	Email
John Penland	Lead Hazardous Waste Inspector	US EPA Region 6	214-665-9717	Penland.john@epa.gov
Jhamila Perrier	Hazardous Waste Investigator	TCEQ Region 12	713-767-3690	Jhamila.perrier@tceq.texas.gov
Gary Weatherly	Executive Vice President	Ksolv	713-829-6297	gary@ksolv.com
Bernard Nelson	Registered Environmental Manager	Ksolv	713-539-1304	
Brian Unruh	Plant Manager	Ksolv	832-773-1987	bunruh@ksolv.com

Daily Summary

Initial Entry to the facility - approximately 10:15am

Opening meeting start – 10:30am

I presented my credentials to Mr. Gary Weatherly and informed him that we were there to conduct an inspection of the facility under the authority of section 3007 of the Resource Conservation and Recovery Act.

We discussed the authority for the inspection –

RCRA Section 3007 - For purposes of developing or assisting in the development of any regulation or enforcing the provisions of this chapter, any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee or representative of a State having an authorized hazardous waste program, furnish information relating to such wastes and permit such person at all reasonable times to have access to, and to copy all records relating to such wastes. For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this chapter, such officers, employees or representatives are authorized—

(1) to enter at reasonable times any establishment or other place where hazardous wastes are or have been generated, stored, treated, disposed of, or transported from;

(2) to inspect and obtain samples from any person of any such wastes and samples of any containers or labeling for such wastes.

We discussed the purpose of EPA's inspection – In response to the Drum Reconditioner Damage Case Report, EPA Region 6 began conducting inspections at facilities where issues similar to those identified in the report might occur. This inspection is intended to: Assess the Ksolv facility's regulatory status (ie, LQG/transporter, SQG, VSQG); Evaluate the facility's waste identification and characterization procedures; and Identify facility operations which could pose a risk of release of hazardous waste or hazardous constituents to the air, water, or land.

Discussed the right of Ksolv to assert a Confidential Business Information claim for records requested by EPA (see attachment)

Discussed the process for transferring electronic records – EPA has set up a  [Microsoft OneDrive folder](#) with access limited to the inspection participants.

Discussed the inspection process – the inspection will be conducted during the week of January 15, 2024. The participants will meet at the facility at 9:00am each day to conduct the onsite portion of the inspection and discuss the findings of the ongoing records review. The records review will be conducted by the inspectors independently offsite throughout the week. Daily summaries will be provided by the inspectors at the end of each day to ensure a clear communication of questions and findings. EPA will schedule a closing conference, where EPA will summarize the overall findings of the inspection to that point and provide a plan for concluding any unfinished evaluation.

General Facility Process – The Ksolv facility is divided into two separate operational units: chemical barge washing; and chemical repackaging and distribution.

These operations process generate: wastewater; used ppe; contaminated glassware and laboratory waste; oily rags and debris; rust and scale residues removed from the barges; discarded and off-spec commercial chemical products.

Initial request for compliance records, including:

- 1) Current arrangements with local authorities and emergency procedures
- 2) Facility Maps identifying solid waste management units
- 3) Facility waste profiles for any solid waste generated since 2021. Include documentation relevant to the waste determination made for each waste (i.e. analytical reports or documentation to support generator knowledge; see 40 CFR 262.11(f))
- 4) Facility SOPs related to the generation or management of hazardous waste
- 5) RCRA Unit inspection records since 2021 for container storage areas
- 6) Currently effective CAA Title V and NSR permits for hazardous waste management units

Facility Walkthrough

Beginning at approximately 11:00am- This walkthrough of the facility was focused on familiarizing the inspection team with the operations and layout of the facility and to identify readily apparent management concerns. A more focused process review is planned for 01/17/2024

The facility was mostly idle due to extremely cold temperatures but planned to resume normal operations on 1/17. While touring the facility we found that the manway hatches were not secured in the closed position on all of the frac tanks used for the accumulation of barge heels.

Departed Facility at approximately 12:15pm

Topics for inspection on January 17, 2024

Start to finish process walkthrough

Solid waste unit identification

Waste profile and determination review

Identification of process management records

Identification of personnel for training review

Discussion of EPA ID changes

John Penland

Senior Environmental Scientist (ECDSR)

Enforcement and Compliance Assurance Division

Waste Enforcement Branch

EPA Region 6 1201 Elm St., Suite 500

Dallas, Texas 75270

(214)665-9717

Penland, John

From: Penland, John
Sent: Thursday, January 18, 2024 12:04 AM
To: Jhamila Perrier; ppentecost@aarccgroup.com; jarmendariz@aarccgroup.com; gary@ksolv.com; bnelson@ksolv.com; kodi@ksolv.com; tracey@ksolv.com; beau@ksolv.com
Cc: Pandak, Debra (she/her/hers)
Subject: Daily Summary - January 17, 2024 - EPA RCRA Inspection of the Ksolv Chemicals and Maritime facility in Channelview, TX (TXR000068908)

All,
Here is a summary of my notes from today's inspection. If there are any errors or omissions please let me know.

Name	Title	Representing	Phone	Email
John Penland	Lead Hazardous Waste Inspector	US EPA Region 6	214-665-9717	Penland.john@epa.gov
Jhamila Perrier	Hazardous Waste Investigator	TCEQ Region 12	713-767-3690	Jhamila.perrier@tceq.texas.gov
Gary Weatherly	Executive Vice President	Ksolv	713-829-6297	gary@ksolv.com
Bernard Nelson	Registered Environmental Manager	Ksolv	713-539-1304	
Paul Pentecost	EHS Manager	AARC Group		ppentecost@aarccgroup.com
Jaime Armendariz	Marketing Manager	AARC Group	713-818-3799	jarmendariz@aarccgroup.com
Kodi Scott	Compliance Coordinator	Ksolv	281-254-2914	kodi@ksolv.com
Tracey Simeon		Ksolv	713-828-1895	tracey@ksolv.com
Beau McDonald		Ksolv	985-232-8676	beau@ksolv.com

Daily Summary

Inspection Day start – approximately 09:10am
Recap of Previous day

Process Walkthrough – Ksolv Barge Services is hired to clean and conduct maintenance on chemical barges. The heels drained from this operation are transferred into containers or frac tanks to be resold by the Ksolv Chemical distribution group. Wastes routinely generated in this process include wastewater, rust and scale, and contaminated PPE.

- Wastewater is sent to Delta Water as “Oily Water” for disposal (recycling) and is not counted by Ksolv as a solid waste.

- Rust and scale waste and the contaminated PPE are sent for disposal at the WCA Ft. Bend Regional Landfill as non-hazardous Class 1 waste under the same profile and TX waste code 00054891 for “Rags, PPE, and Oily Sludge”.

Ksolv chemical distribution operates container and tank storage units for the blending and distribution of commercial chemical products. These products are received as heels from barges cleaned by the Barge Services group, bought as off-spec heels from other container cleaning operations, or bought as off-spec or virgin product from chemical

manufacturers. Wastes routinely generated in the chemical storage and distribution process include methanol contaminated rinse water for flushing transfer equipment, contaminated filter bags from product filtering, contaminated rags and PPE, polymerized styrene, and glass laboratory waste.

- Methanol contaminated rinse water is sent to Delta Water as "Alcohol Rinse Water". According to the profile, the waste water has a flash point <150F but is exempt from the D001 hazardous waste characteristic since it is composed of <24% alcohol and >50% water by weight. Ksolv has the Class 1 waste code 00252011 assigned for this waste but has not reported its generation. The profile anticipates a generation of up to 5,000 gallons per month.

- contaminated filter bags, rags, and PPE are sent for disposal at the WCA Ft. Bend Regional Landfill as non-hazardous Class 1 waste under the same profile as listed for Barge Services waste, TX waste code 00054891 for "Rags, PPE, and Oily Sludge".

- polymerized styrene is generated when the inhibitors in the styrene monomer product become too dilute, often as a result of water contamination, and the monomer begins to auto-polymerize. This occurs rapidly and can generate enough heat to melt the storage container. Once the reaction has completed, the resulting polymerized styrene is disposed at the WCA Ft. Bend Regional Landfill as non-hazardous Class 1 waste under TX waste code 00144091.

- glass laboratory waste is generated by the facility QA lab. The waste is comprised of used and broken glassware. The liquid product samples are returned to the product tanks. This waste stream is disposed at the WCA Ft. Bend Regional Landfill as non-hazardous Class 1 waste under TX waste code 00383881.

Facility Walkthrough

Barge Dock

- 1x Vacuum box used for the accumulation of Rust and scale from barge washing operations

- 2x Roll off box used from the accumulation of used PPE, oily rags, and rust and scale from barge washing operations

- 1x Tote of Natures Edge product used as VOC emissions control for the waste water tanks

- 2x drums of activated carbon used as VOC emissions control for the waste water tanks

- 2x tanks for waste water

Chemical Storage and distribution

- 2x tanks for alcohol rinse water

- 1x container storage area for waste styrene – evidence of styrene spills present. No containers in area. 2 reacted styrene containers found in product storage areas

- 1x container storage area for laboratory waste

Waste Determination review

Barge Washwater – determination made on process knowledge. The facility washes barges which last held a variety of commercial chemicals including alcohols, diesel, gasoline, MEK, and others which could potentially generate a characteristic wastewater. However the facility's process requires the barges to be vapor free prior to washing so that employees can enter and manually wash the containers as opposed to using an automatic spray head. This process means that the organic content of the wastewater is lower than wash waters at other facilities. Ksolv has determined that this reduction is sufficient to preclude the generation of characteristic wastewater.

Rust and Scale – determination based largely on process knowledge. One analytical report was provided for this waste stream from a barge sampled on July 24, 2023. The sample results indicate that the sample is non-hazardous. However, this sample is a single grab from a larger batch of rust and scale from a barge where the last held contents were not indicated. Since this waste is generated by a batch process with a variety of potential contaminants, this determination may be insufficient

Contaminated PPE – determination based on process knowledge

Laboratory Glassware – determination based on process knowledge

Polymerized styrene – determination based on process knowledge with accompanying SDS

Alcohol Rinse Water – determination based on process knowledge. However, this determination has a dependence on procedural control to ensure that the concentration of alcohol never exceeds 24%. The facility has not been able to provide analytical documentation to verify adherence to this limit.

Product Filter bags – This determination is based on process knowledge. However, the bags are used to filter various products included some that could result in the waste carrying in a hazardous waste characteristic. The facility has been unable to provide documentation showing that this waste is generated in a manner which would exclude potential hazardous waste characteristics.

Training Documentation

Reviewed a list of computer based training modules that apply to all operations personnel at the facility. No concerns identified at this time

Facility inspection records

The facility provided a daily walkthrough checklist that applies to all tanks and containers at the facility. This record is complete but does not individually identify waste management units or areas

Emergency Procedures

The facility provided a copy of their emergency action plan. This plan has been provided to the LEPC and Ksolv will provide documentation to that effect.

Close out meeting planned for 1/18/2024

John Penland
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Waste Enforcement Branch
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