

DOW CONFIDENTIAL INFORMATION

R&D REPORT THE DOW CHEMICAL COMPANY		CRI NUMBER LABORATORY REPORT CODE LAD-AR 94.01	
DEPARTMENT RESEARCH AND DEVELOPMENT		GEOGRAPHIC LOCATION LOUISIANA	
REPORT TITLE Reactive Chemicals Testing of Compatibility of Absorbents with Process Chemicals		DATE ISSUED January 4, 1994	
		PAGES IN ___22___ FULL REPORT	
		LAB NO. 274	PROBLEM NO. 0000
AUTHOR'S LAST NAME AND INITIALS/MASTER NUMBER J. G. Schell (432167), G. P. Wagener (431616), G. J. Barrilleaux (430781)			
AUTHOR'S SIGNATURE <i>J. G. Schell, G. P. Wagener, G. J. Barrilleaux</i>			
REVIEWER'S AND/OR SUPERVISOR'S NAME R. D. Summers		REVIEWER'S AND/OR SUPERVISOR'S SIGNATURE <i>R. D. Summers</i>	
DESCRIPTIVE SUMMARY WITH CONCLUSIONS: This report summarizes the results of Reactive Chemicals compatibility testing of several absorbents with process chemicals. Over the years, there have been many Reactive Chemical incidents which have been caused by using an absorbent to clean up a spill which was reactive with the chemical. The purpose of this report is to help prevent future incidents by providing a list of absorbents that have been tested for reactivity and emphasizing the need for testing of absorbents not on the list. A search of all of the Reactive Chemicals test results on absorbents and process chemicals which have been performed in the Louisiana Division Reactive Chemicals lab and a search of Reactive Chemicals test results from the REACHEM Global Reactive Chemicals database were combined and summarized in an Excel spreadsheet. This spreadsheet is continually being updated and currently has over 200 entries. Three tables are presented in this report listing the reactivities of the absorbents with process chemicals, sorted by absorbent, process chemical, and plant.			
KEY WORDS absorbent, compatibility, reactivity, Differential Thermal Analysis (DTA), Differential Scanning Calorimetry (DSC), Mixing Cell Calorimetry (MCC), Heat of Mixing (HOM), Accelerating Rate Calorimetry (ARC)			
PATENT STATUS: DISCLOSURE SUBMITTED CASE FILED ☒ NO ACTION REQUIRED			
ARE THE MATERIALS DESCRIBED IN THIS REPORT ON YOUR COUNTRY'S INVENTORY? (TSCA, EINECS, ELINCS, CEPA, ETC.) ☒ YES NO*			
WILL THIS PRODUCT BE SOLD/USED IN OTHER COUNTRIES? YES* ☒ NO			
*CONTACT YOUR LOCAL REGULATORY COMPLIANCE PERSON AND/OR CHIEF PRODUCT STEWARD.			
DISTRIBUTION: CRI - 566 MIDLAND, MI CRI - FREEPORT, TX		CRI - PLAQUEMINE, LA DEPARTMENT FILES	
		DISTRIBUTION LIST IS CONTINUED ON ATTACHED PAGE.	

INTRODUCTION

Before an absorbent is used to clean up a chemical spill, the user should be sure that the absorbent and chemical are compatible. The purpose of this report is to provide a list of absorbents that have been tested for reactivity with various chemicals. The RESULTS AND DISCUSSION section of the report contains a discussion of the interpretation of the test results. If there is any doubt if an absorbent is compatible with a process chemical based on the test results, the Reactive Chemicals group should be consulted. Also, if an absorbent or chemical is not on the list, the Reactive Chemicals lab should be consulted to determine if testing is necessary. The Technology Center is another source of information on the compatibility of absorbents with process chemicals. Over the years there have been many Reactive Chemical incidents at Dow involving absorbents. A few examples of incidents at Dow and other companies are given below:

PAST INCIDENTS

Exotherm of Propylene Oxide by Hi-Dri All Purpose Absorbent

A U.S. Area customer overfilled an underground storage tank while unloading a Dow tank car of propylene oxide creating about a 1000 gallon spill. An adjacent sewer leading to the municipal sewerage treatment plant contributed to a conscious decision not to apply water, but to absorb the spill. The fire fighters on the scene had the foresight to set up lines and monitors and to call in additional equipment. Absorbent materials sold for handling chemical spills were applied to the perimeters of the spill area and then a granular material (Hi-Dri) sold for absorption of grease and oil spills was applied within the pool area. Shortly after application, vaporization within the pool of liquid began and rapidly progressed. Ignition followed and rapidly developed into an intense fire engulfing the tank car. Several drums of flammables stored in the area ruptured and were propelled into the air adding to the spectacular situation. The fire was brought under control after several minutes of burn-off, dilution, and finally, the application of an alcohol foam. Subsequent tests with Hi-Dri All Purpose Absorbent revealed incompatibility with propylene oxide.

Liquid Waste/Fly Ash Absorbent Reaction Generates Heat and Foam

A reaction occurred between a liquid waste material and fly ash absorbent while attempting to solidify the waste for incineration. The reaction generated heat and foam and spilled over the top of the drum into a diked hazardous waste area. It was determined that an acid-base reaction caused this incident. A sample of the liquid waste was found to contain 21% sulfuric acid. The source of the base was calcium, magnesium, and potassium oxide components in the fly ash.

Zorball Incompatible Absorbent for Styrene

In order to unplug an inlet screen, approximately eight gallons of styrene was discharged into waste drums for incineration at the Environmental Operations Plant (EOP). EOP required solidification of liquid waste with an absorbent prior to incineration. Personnel added an absorbent and within minutes the mixture started heating and generating smoke. Water was added to dissipate the heat. Plant procedures state that only sand or vermiculite should be used to absorb styrene. Zorball absorbent was substituted without conferring with the Styrene Technology Center to verify compatibility.

Potassium Hydroxide Reaction with Absorball

A 55 gallon drum of off-grade aqueous KOH was absorbed with Absorball in eight 15 gallon waste drums. The drums became warm so the drum tops were removed and no further heating occurred.

Sodium Persulfate Reaction with Slik-Wik (Ground Corn Cobs)

A leakage of sodium persulfate was absorbed in Slik-Wik (ground corn cobs) and packed in drums for later incineration. Several hours later, one of the drums became hot, bulged, and emitted a gas. The persulfate in this and the remaining drums was diluted with water and then absorbed into Safe-T-Sorb (ground clay).

Reactions with Sawdust

A differential pressure instrument on a benzoyl chloride tank was cleared for maintenance. A small amount of benzoyl chloride was put into a waste pail with sawdust absorbent. The contents of the pail was later observed to be smoldering. It was quenched with no damage.

Smoke was seen coming from a plastic waste drum of an acrylate and sawdust. This was found to be the first of ten drums and contained some residual impurities which catalyzed the decomposition. There was no further damage.

A Dowtherm leak occurred during a furnace charging operation (transfusion) and some Dowtherm was spilled on the concrete. Sawdust was applied with the intent of cleaning it up later, but it was in contact with a temporary hot steam line. The heat speeded up the spontaneous combustion process, igniting it.

A drum of toluene diisocyanate was spilled in a warehouse and was cleaned up by using sawdust and placing the mixture in several 55 gallon drums. The drums were placed next to a building where a nearby hot tank was located and the reaction took off. One of the drums caught fire and all of them overpressured and the lids blew on two of the drums.

Amines from a leak in a pipe flange were absorbed with sawdust. The sawdust then began emitting fumes of amines due to the onset of an exotherm from an amine/sawdust reaction.

Waste amines were mixed with sawdust and left in a storage building over a weekend. When workers returned, a charred mass was found.

Sawdust was used to clean up a 25 gallon spill of DETA from the slab and roof of a control room. When the temperature of the sawdust began to rise (60-70 degrees C), the material was loaded into 14 gallon drums. The contents of plastic drums were saturated with water and the temperature continued to be monitored until no further reaction could be detected.

About 75 grams of potassium hydride dispersed in mineral oil had been deactivated by adding it to methanol. After the hydrogen evolution ceased, the residual slurry was poured into a 5 gallon waste pail containing sawdust and waste chlorinated solvents, Freon 113¹ and Chloroethene². The fact that the deactivation reaction produces potassium methoxide was not considered, so the residue was not neutralized with acid. The potassium methoxide reacted with the sawdust and Chloroethene to produce heat, possibly leading to the spontaneous combustion. The residue of a fire in the walk-in hood was discovered a few days later.

Sawdust was put in a dumpster to absorb aminoethylethanolamine (AEEA) and caught fire. There were no injuries or property damage.

At the MDI plant, a one-gallon spill of anhydrous ferric chloride (20% in DEG) from a leaking drum was cleaned up with sawdust, placed in a 30 gallon covered plastic drum and stored in a "hot room" (120 degrees F) to keep moisture out. Nine days later, it caught fire. No damage resulted.

Reactions with Peat Moss

An amine spill off-site by the product carrier was absorbed with a peat moss material. The absorbed material was placed in drums and returned to the Dow facility for disposal. The material began to heat up in the drums and was then spread on the ground at a secure landfill to dissipate the heat. Due to the increased availability of air, the hot absorbent ignited. It was quickly extinguished with water with no property damage.

The contents of two 16 gallon open top containers of a polyaromatic polyisocyanate (PAPI) were solidified with peat moss in accordance with procedures outlined by the product group. The water in the peat reacted with the

¹Trademark of E. I. duPont de Nemours & Co., Inc.

²Trademark of The Dow Chemical Company

PAPI, as is normal, but more rapidly than usual, causing a polymerization. Because the drum was overfilled with liquid, the foam generated by the reaction spilled over onto the concrete. A written procedure has been created for disposal of PAPI 27 to use only dry sawdust for solidification and to fill drums only half way.

EXPERIMENTAL

The test results of the reactivity of various absorbents with process chemicals summarized in Tables I-III were obtained from searches of the LAD Reactive Chemicals lab analyses and test results from the REACHEM Global Reactive Chemicals database. These tests include Differential Thermal Analysis (DTA), Differential Scanning Calorimetry (DSC), Mixing Cell Calorimetry (MCC), Heat of Mixing (HOM), and Accelerating Rate Calorimetry (ARC).

Differential Thermal Analysis (DTA)

DTA was used prior to 1987 to detect exothermic or endothermic reactions and the reaction onset temperatures as the temperature of the sample was increased at a set rate. DTA only measures the difference in temperature between the absorbent and process chemical sample and a reference, and not the heat of reaction.

Differential Scanning Calorimetry (DSC)

DSC is currently used as a screening tool to determine the exothermic or endothermic heat of reaction at elevated temperatures and the reaction onset temperature. The DSC method is similar to the DTA method except that the sample and reference material are maintained at the exact same temperature as the temperature is increased at a set rate. If the absorbent and process chemical sample exothermically react at a certain temperature, the sample heater requires less energy input than the reference heater to maintain the same temperature. This energy input difference is precisely equivalent to the exothermic heat evolved and is a direct calorimetric measure of the heat of reaction. Thus DSC is considered to be more quantitative than DTA.

Mixing Cell Calorimetry (MCC) for Heat of Mixing

MCC is used to measure the heat of mixing evolved from mixing an absorbent and a process chemical at ambient temperature. The LAD Reactive Chemicals lab and several other sites use a Two-drop heat of mixing calorimeter while other sites use a Two-milliliter heat of mixing calorimeter.

Simple Heat of Mixing Test (HOM)

Sometimes a simple heat of mixing test was performed at ambient temperature by mixing the absorbent and process chemical in a near-adiabatic Dewar flask and measuring temperature rise.

Together, the DSC and heat of mixing tests are screening tools used to determine if there are any signs of reactivity between an absorbent and process chemical at ambient and elevated temperatures.

Accelerating Rate Calorimetry (ARC)

If more accurate and detailed thermal data are deemed necessary after the DSC and heat of mixing tests, then an ARC test is performed. A larger sample of the absorbent and process chemical are loaded into an ARC sphere and a wait-search-heat sequence with a heat step usually of 10 degrees C is repeated from ambient temperature to an end temperature. If the self heat rate of an exothermic reaction between the absorbent and the process chemical exceeds 0.02 degrees C per minute, the reaction is allowed to proceed on its own under near-adiabatic conditions. This method gives an accurate measure of the heat of reaction after corrections are made for the thermal inertia of the sample container, and also a fairly conservative estimate of the conditions for a runaway reaction. The ARC onset-of-reaction temperature is more accurate and lower than the DSC onset temperature, since the DSC onset temperature increases with higher temperature scan rates.

RESULTS AND DISCUSSION

Table I (pp. 8-12) lists the reactivity of absorbents with process chemicals and is sorted by absorbents. The table includes the absorbent, process chemical, plant, reference number (corresponding to the Reactive Chemicals test number), test (DTA, DSC, MCC, HOM, or ARC), reactivity and onset temperature, and heat of reaction. Table II (pp. 13-17) is sorted by process chemical and Table III (pp. 18-22) is sorted by plant. If no thermal reactivity was observed between the absorbent and the process chemical, and the test was run, for example, to 200 degrees C, the remark under the Reactivity and Onset Temperature heading would read "No exo to 200 C." If an exothermic reaction was observed with an onset temperature of 100 degrees C, the remark would read "Exo at 100 C."

If MCC or HOM and DSC or ARC test results indicate no reactivity between an absorbent and a process chemical at ambient and elevated temperatures, then they can be considered compatible.

If MCC or HOM and/or DSC or ARC test results indicate an exothermic reaction between an absorbent and a process chemical, then the Reactive Chemicals

group should be consulted to help interpret the results to decide if an absorbent should or should not be used.

If only DTA, DSC, or ARC tests were run and indicated no reactivity at elevated temperatures, then a MCC or HOM test should be performed to check for reactivity at ambient temperature before an absorbent and process chemical are considered compatible.

There may be some absorbents in the REACHEM Global Reactive Chemicals database that were not found by our search, and therefore not included in the tables. REACHEM does not search using name fragments or wild cards for letters. The search had to be made by entering specific names of known absorbents. If an absorbent is not in the tables, the Reactive Chemicals group should be consulted. A search will be made for the absorbent in the REACHEM database and if not found, will be tested.

It is important to remember that according to the Reactive Chemicals Program, it is the responsibility of the owner of the chemical or process (plant personnel) to obtain sufficient data to assure safe operation. The Reactive Chemicals Program is designed to assist the owner in doing this. The Reactive Chemicals group is available for testing, interpretation of results, consultation, reviews, training programs, and investigation of incidents.

The absorbent Excel spreadsheet is continually being updated as new tests are run. These include re-checks, new absorbents, and absorbents used with new process chemicals. Therefore, if an absorbent is not in the table, the Reactive Chemicals group should be contacted to see if it was run since this report was issued. Updated versions of the tables will be re-issued at appropriate times.

CONCLUSIONS

1. Before an absorbent is used to clean up a chemical spill, the user must be sure that the absorbent and chemical are compatible. If the absorbent or chemical is not on the list of tested materials included in this report, Reactive Chemical testing should be performed.
2. The Reactive Chemicals testing used to check for reactivity have included DTA, DSC, MCC, HOM, and ARC.
3. An Excel spreadsheet with over 200 entries of the reactivities of different absorbents and process chemicals resides in the LAD Reactive Chemicals lab. The spreadsheet is continually being updated.
4. Over the years there have been many Reactive Chemical incidents at Dow involving absorbents. The majority of incidents involved sawdust or other cellulosic materials.

TABLE I

REACTIVITY OF ABSORBENT WITH PROCESS CHEMICAL (SORTED BY ABSORBENT)

<u>ABSORBENT</u>	<u>PROCESS CHEMICAL</u>	<u>PLANT</u>	<u>REF.</u>	<u>TEST</u>	<u>REACTIVITY & ONSET TEMP (C)</u>	<u>HEAT OF RXN (CAL/G)</u>
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	DSC	NONE TO 200 C	0
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	MCC	NONE AT 25 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0258	DSC	NONE TO 200 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0256	MCC	NONE AT 25 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	DSC	NONE TO 200 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	MCC	SL EXO AT 25 C	-0.7
ABSORBENT BOOM	STYRENE	TX B-7101	RCT-87-0890	ARC	EXO AT 96 C	-72
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	DSC	SL EXO AT 65 C	-0.5
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	MCC	SL EXO AT 25 C	-0.7
ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	DSC	NONE TO 200 C	0
ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	MCC	SL EXO AT 25 C	-0.5
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	MCC	SL EXO AT 25 C	-0.5
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	DSC	NONE TO 200 C	0
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	MCC	NONE AT 25 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	DSC	NONE TO 200 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	DSC	NONE TO 200 C	0
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	MCC	NONE AT 25 C	0
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	MCC	NONE AT 25 C	0
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	MCC	SL EXO AT 25 C	-0.5
CALCINED OIL ABSORBENT	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
CV DIATOMACEOUS EARTH	PROPYLENE OXIDE	GLYCOL 1	92150	DSC	EXO AT 146 C	INCOMPLETE
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.8
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
FLOOR DRY SORBENT	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
FLOOR DRY SORBENT	5% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
FLOOR DRY SORBENT	50% SODIUM HYDROXIDE	LGTI	92173	HOM	SL EXO AT 25 C	3 DEG C RISE

DO A 022035
CONFIDENTIAL

FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	RCT-85-0311	DTA	EXO AT 235 C	INCOMPLETE
FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	RCT-85-0311	MCC	SL EXO AT 25 C	-0.3
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	MCC	SL EXO AT 25 C	-1.8
FLY ASH	21% SULFURIC ACID IN WATER	METHANES	92002	MCC	EXO AT 25 C	-95
FLY ASH	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	DSC	EXO AT 143 C	-147
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	MCC	SL EXO AT 25 C	-0.5
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
HI DRY	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0
HI DRY	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	HOM	NONE AT 25 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	DSC	EXO AT 150 C	INCOMPLETE
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	DSC	EXO AT 36 C	-101
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	MCC	EXO AT 25 C	-5.5
OCLANSORB	43% 2,3-DICHLOROPROPENE,23% EPI, ...	TX B-7503	RCT-92-0477	DSC	EXO AT 154 C	-50
OCLANSORB	43% 2,3-DICHLOROPROPENE,23% EPI, ...	TX B-7503	RCT-92-0477	MCC	NONE AT 25 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	DSC	NONE TO 200 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	MCC	NONE AT 25 C	0
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	DSC	EXO AT 60 C	INCOMPLETE
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	MCC	EXO AT 25 C	-1
OCLANSORB	80% CUMENE HYDROPEROXIDE,20% CUMEN	TX OC-301	RCT-91-1207	DSC	NONE TO 200 C	0
OCLANSORB	80% CUMENE HYDROPEROXIDE,20% CUMEN	TX OC-301	RCT-91-1207	MCC	NONE AT 25 C	0
OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	DSC	NONE TO 200 C	0
OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	MCC	NONE AT 25 C	0
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	DSC	EXO AT 56 C	-6.9
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	MCC	EXO AT 25 C	-13
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	DSC	NONE TO 200 C	0
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	DSC	EXO AT 128 C	-6.2
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	DSC	EXO AT 141 C	-11
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	MCC	NONE AT 25 C	0
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	DSC	EXO AT 150 C	INCOMPLETE
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	MCC	NONE AT 25 C	0

DO A 022036
CONFIDENTIAL

OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	DSC	EXO AT 67 C	-27
OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	MCC	SL EXO AT 25 C	-3.8
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	DSC	NONE TO 200 C	0
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	MCC	NONE AT 25 C	0
OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	DSC	NONE TO 200 C	0
OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	MCC	NONE AT 25 C	0
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	DSC	EXO AT 146 C	>-323
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	MCC	NONE AT 25 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	DSC	NONE TO 200 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	MCC	NONE AT 25 C	0
OCLANSORB	NUTO 46 LUBE OIL	TX OC-301	RCT-91-1201	DSC	NONE TO 200 C	0
OCLANSORB	NUTO 46 LUBE OIL	TX OC-301	RCT-91-1201	MCC	NONE AT 25 C	0
OCLANSORB	PHENOL	TX OC-301	RCT-91-1209	DSC	NONE AT 25 C	0
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	DSC	NONE TO 200 C	0
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	MCC	NONE AT 25 C	0
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	DSC	NONE TO 200 C	0
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	MCC	NONE AT 25 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	DSC	NONE TO 200 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	MCC	NONE AT 25 C	0
OIL ABSORBENT (CALCINED)	30-40% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	MCC	SL EXO AT 25 C	-4.9
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	4 DEG C RISE
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	DSC	NONE TO 200 C	0
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	MCC	SL EXO AT 25 C	-0.8
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	DSC	NONE TO 200 C	0
OIL ABSORBENT (CALCINED)	METHYLDIETHANOLAMINE	PROMIX	91103	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	DOWTHERM A	TX B-3831	RCT-86-0306	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	DOWTHERM J	TX B-3831	RCT-86-0304	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	SYLTHERM 800	TX B-3831	RCT-86-0305	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE 3071	TX B-451	RCT-91-0818	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE 3072	TX B-451	RCT-91-0818	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT PAD (3M)	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.1
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0

DO A 022037
 CONFIDENTIAL

OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	HOM	SL EXO AT 25 C	2 DEG C RISE
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	DSC	NONE TO 200 C	0
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	MCC	SL EXO AT 25 C	-1
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	DSC	NONE TO 200 C	0
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	MCC	SL EXO AT 25 C	-1
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	MCC	SL EXO AT 25 C	-0.5
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	MCC	NONE AT 25 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0142	ARC	EXO AT 221 C	-157
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
PEAT MOSS	METHYLENE CHLORIDE	METHANES	92105	HOM	NONE AT 25 C	0
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	ARC	NONE TO 200 C	0
SAND	PROPYLENE DICHLORIDE (PDC)	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
SORBATHENE	1,1,1-TRICHLOROETHANE	SOLVENTS	RCM-91-0221	ARC	NONE TO 250 C	0
SORBATHENE	1,1-DICHLORO-1-FLUOROETHANE (R-141B)	C4-1 STADE	RCR-91-3028	DSC	EXO AT 197 C	-1.2
SORBATHENE	1,1-DICHLORO-2,2,2-TRIFLUOROETHANE	C4-1 STADE	RCR-91-3029	DSC	EXO AT 194 C	-2.4
SORBATHENE	DICHLORO TETRAFLUOROETHANE (R-114)	C4-1 STADE	RCR-92-1091	DSC	EXO AT 249 C	-8.6
SORBATHENE	EICI + 1,1-DICHLORO-2-FLUOROETHANE	C4-1 STADE	RCR-91-3232	DSC	EXO AT 224 C	-6.7
SORBATHENE	ETHYLCHLORIDE (EICI)	C4-1 STADE	RCR-91-3231	DSC	EXO AT 232 C	-41
SORBATHENE	FLUORODICHLOROETHANE (R-141B)	C4-1 STADE	RCR-91-6406	ARC	SL EXO AT 157 C	INCOMPLETE
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	DSC	SL EXO AT 220 C	-1.2
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	MCC	EXO AT 25 C	-6.7
SORBATHENE	FREON R-12	C4-1 STADE	RCR-92-0921	DSC	EXO AT -112 C	-8.8
SORBATHENE	METHYLAL + TRIMETHYLAMINE	STADE R&D	RCR-90-0126	DSC	EXO AT 48 C	-6.9
SORBATHENE	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-3091	DSC	NONE TO 350 C	0
SORBATHENE	N-BUTANE	C4-3 STADE	RCR-91-3056	DSC	EXO AT 231 C	-29
SORBATHENE	STYRENE	C4-1 STADE	RCR-91-6408	ARC	EXO AT 99 C	-177
SORBATHENE	STYRENE	C4-3 STADE	RCR-91-3055	DSC	EXO AT 206 C	-100
SORBATHENE	TRIFLUORODICHLOROETHANE (R-123)	C4-1 STADE	RCR-91-6405	ARC	SL EXO AT 162 C	INCOMPLETE
SORBATHENE ON PU-FOAM	ETHYLACETATE	C4-1 STADE	RCR-91-3304	DSC	EXO AT 183 C	-4.3
SORBATHENE ON PU-FOAM	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-6438	ARC	NONE TO 250 C	0
SORBATHENE XFS-4022	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XU-43522.00	GASOLINE VAPOR RECOVERY	LARKIN LAB	RCM-92-0207	ARC	NONE TO 300 C	0
SORBATHENE XUS-40323.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XUS-43493	PERCHLOROETHYLENE	SOLVENTS	RCM-92-0456	ARC	NONE TO 300 C	0
SORBATHENE XUS-43493.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	DSC	NONE TO 200 C	0

DO A 022038
CONFIDENTIAL

SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	MCC	NONE AT 25 C	0
SORBITOL	30/70% HEXA & ME HEXAHYDROPHthalic ANHYDR TX	B-1470C	RCT-93-0040	DSC	EXO AT 151 C	-13.6
SORBITOL	ETHYLENE CARBOANTE/K CARBONATE	TX B-1470	RCT-93-0559	DSC	EXO AT 191 C	INCOMPLETE
SORBITOL	ETHYLENE CARBONATE	TX B-1470	RCT-93-0558	DSC	EXO AT 131 C	-6.9
SPAGH SORB	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	28% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	MCC	SL EXO AT 25 C	-2
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	DSC	NONE TO 200 C	0
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	MCC	SL EXO AT 25 C	-2
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	DSC	NONE TO 167 C	0
SPILL-KLEAN	METHYLENE CHLORIDE	METHANES	92105	HOM	ENDO AT 25 C	2 DEG C DROP
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	MCC	EXO AT 25 C	-5.5
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	MCC	EXO AT 25 C	-5
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	MCC	EXO AT 25 C	-6.9
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	MCC	EXO AT 25 C	-8.6

DO A 022039
CONFIDENTIAL

TABLE II

REACTIVITY OF ABSORBENT WITH PROCESS CHEMICAL (SORTED BY PROCESS CHEMICAL)

ABSORBENT	PROCESS CHEMICAL	PLANT	REF.	TEST	REACTIVITY & ONSET TEMP (C)	HEAT OF RXN (CAL/G)
SORBATHENE	1,1,1-TRICHLOROETHANE	SOLVENTS	RCM-91-0221	ARC	NONE TO 250 C	0
SORBATHENE	1,1-DICHLORO-1-FLUOROETHANE (R-141B)	C4-1 STADE	RCR-91-3028	DSC	EXO AT 197 C	-1.2
SORBATHENE	1,1-DICHLORO-2,2,2-TRIFLUOROETHANE	C4-1 STADE	RCR -91-3029	DSC	EXO AT 194 C	-2.4
FLOOR DRY SORBENT	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
FLY ASH	21% SULFURIC ACID IN WATER	METHANES	92002	MCC	EXO AT 25 C	-95
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	DSC	EXO AT 36 C	-101
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	MCC	EXO AT 25 C	-5.5
FLOOR DRY SORBENT	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT PAD (3M)	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
SPAGH SORB	28% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT (CALCINED)	30-40% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	1 DEG C RISE
SORBITOL	30/70% HEXA & ME HEXAHYDROPHthalic ANHYDR TX B-1470C		RCT-93-0040	DSC	EXO AT 151 C	-13.6
OCLANSORB	43% 2,3-DICHLOROPROPENE, 23% EPI, ...	TX B-7503	RCT-92-0477	DSC	EXO AT 154 C	-50
OCLANSORB	43% 2,3-DICHLOROPROPENE, 23% EPI, ...	TX B-7503	RCT-92-0477	MCC	NONE AT 25 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	DSC	NONE TO 200 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	MCC	NONE AT 25 C	0
FLOOR DRY SORBENT	5% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT PAD (3M)	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
FLOOR DRY SORBENT	50% SODIUM HYDROXIDE	LGTI	92173	HOM	SL EXO AT 25 C	3 DEG C RISE
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	DSC	EXO AT 60 C	INCOMPLETE
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	MCC	EXO AT 25 C	-1
OIL ABSORBENT PAD (3M)	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	MCC	SL EXO AT 25 C	-4.9
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	4 DEG C RISE
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	HOM	SL EXO AT 25 C	2 DEG C RISE
OCLANSORB	80% CUMENE HYDROPEROXIDE, 20% CUMEN	TX OC-301	RCT-91-1207	DSC	NONE TO 200 C	0
OCLANSORB	80% CUMENE HYDROPEROXIDE, 20% CUMEN	TX OC-301	RCT-91-1207	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	MCC	NONE AT 25 C	0

DO A 022040
CONFIDENTIAL

OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	DSC	NONE TO 200 C	0
OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	MCC	NONE AT 25 C	0
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	DSC	EXO AT 56 C	-6.9
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	MCC	EXO AT 25 C	-13
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	DSC	NONE TO 200 C	0
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	DSC	EXO AT 128 C	-6.2
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	DSC	EXO AT 141 C	-11
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	MCC	NONE AT 25 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	HOM	NONE AT 25 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	DSC	EXO AT 150 C	INCOMPLETE
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	DSC	NONE TO 200 C	0
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	MCC	NONE AT 25 C	0
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	DSC	NONE TO 200 C	0
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	MCC	NONE AT 25 C	0
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	DSC	EXO AT 150 C	INCOMPLETE
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	MCC	NONE AT 25 C	0
OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	DSC	EXO AT 67 C	-27
OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	MCC	SL EXO AT 25 C	-3.8
SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	MCC	NONE AT 25 C	0
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	DSC	NONE TO 200 C	0
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	MCC	NONE AT 25 C	0
SORBATHENE	DICHLORO TETRAFLUOROETHANE (R-114)	C4-1 STADE	RCR-92-1091	DSC	EXO AT 249 C	-8.6
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	MCC	SL EXO AT 25 C	-0.8
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0256	DSC	NONE TO 200 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0256	MCC	NONE AT 25 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	DSC	NONE TO 200 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	MCC	SL EXO AT 25 C	-0.7
OIL ABSORBENT PAD	DOWTHERM A	TX B-3831	RCT-86-0306	DTA	NONE TO 325 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	MCC	NONE AT 25 C	0

DO A 022041
 CONFIDENTIAL

OIL ABSORBENT PAD	DOWTHERM J	TX B-3831	RCT-86-0304	DTA	NONE TO 325 C	0
FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	RCT-85-0311	DTA	EXO AT 235 C	INCOMPLETE
FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	RCT-85-0311	MCC	SL EXO AT 25 C	-0.3
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	DSC	EXO AT 143 C	-147
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	MCC	SL EXO AT 25 C	-0.5
OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	DSC	NONE TO 200 C	0
OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	MCC	NONE AT 25 C	0
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	DSC	EXO AT 146 C	>-323
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	MCC	NONE AT 25 C	0
SORBATHENE	EICI + 1,1-DICHLORO-2-FLUOROETHANE	C4-1 STADE	RCR-91-3232	DSC	EXO AT 224 C	-6.7
SORBATHENE ON PU-FOAM	ETHYLACETATE	C4-1 STADE	RCR-91-3304	DSC	EXO AT 183 C	-4.3
SORBATHENE	ETHYLCHLORIDE (EICI)	C4-1 STADE	RCR-91-3231	DSC	EXO AT 232 C	-41
SORBITOL	ETHYLENE CARBOANTE/K CARBONATE	TX B-1470	RCT-93-0559	DSC	EXO AT 191 C	INCOMPLETE
SORBITOL	ETHYLENE CARBONATE	TX B-1470	RCT-93-0558	DSC	EXO AT 131 C	-6.9
SORBATHENE	FLUORODICHLOROETHANE (R-141B)	C4-1 STADE	RCR-91-6406	ARC	SL EXO AT 157 C	INCOMPLETE
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	DSC	SL EXO AT 220 C	-1.2
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	MCC	EXO AT 25 C	-6.7
SORBATHENE	FREON R-12	C4-1 STADE	RCR-92-0921	DSC	EXO AT -112 C	-8.8
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.8
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	MCC	SL EXO AT 25 C	-1.8
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.1
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	MCC	SL EXO AT 25 C	-2
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	DSC	NONE TO 200 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	DSC	NONE TO 200 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	MCC	NONE AT 25 C	0
SORBATHENE	METHYLAL + TRIMETHYLAMINE	STADE R&D	RCR-90-0126	DSC	EXO AT 48 C	-6.9
OIL ABSORBENT (CALCINED)	METHYLDIETHANOLAMINE	PROMIX	91103	MCC	NONE AT 25 C	0
PEAT MOSS	METHYLENE CHLORIDE	METHANES	92105	HOM	NONE AT 25 C	0
SORBATHENE	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-3091	DSC	NONE TO 350 C	0
SORBATHENE ON PU-FOAM	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-6438	ARC	NONE TO 250 C	0
SPILL-KLEAN	METHYLENE CHLORIDE	METHANES	92105	HOM	ENDO AT 25 C	2 DEG C DROP
CALCINED OIL ABSORBENT	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
FLY ASH	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	MCC	SL EXO AT 25 C	-2
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	DSC	NONE TO 167 C	0
SORBATHENE	N-BUTANE	C4-3 STADE	RCR-91-3056	DSC	EXO AT 231 C	-29
HI DRY	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0

DO A 022042
CONFIDENTIAL

HI DRY	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0
OCLANSORB	NUTO 46 LUBE OIL	TX OC-301	RCT-91-1201	DSC	NONE TO 200 C	0
OCLANSORB	NUTO 46 LUBE OIL	TX OC-301	RCT-91-1201	MCC	NONE AT 25 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	DSC	NONE TO 200 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	DSC	NONE TO 200 C	0
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	MCC	SL EXO AT 25 C	-0.7
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	ARC	NONE TO 200 C	0
SORBATHENE XUS-43493	PERCHLOROETHYLENE	SOLVENTS	RCM-92-0456	ARC	NONE TO 300 C	0
OCLANSORB	PHENOL	TX OC-301	RCT-91-1209	DSC	NONE AT 25 C	0
SAND	PROPYLENE DICHLORIDE (PDC)	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
CV DIATOMACEOUS EARTH	PROPYLENE OXIDE	GLYCOL 1	92150	DSC	EXO AT 146 C	INCOMPLETE
SORBATHENE XFS-4022	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XUS-40323.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XUS-43493.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0
OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
ABSORBENT BOOM	STYRENE	TX B-7101	RCT-87-0890	ARC	EXO AT 96 C	-72
SORBATHENE	STYRENE	C4-1 STADE	RCR-91-6408	ARC	EXO AT 99 C	-177
SORBATHENE	STYRENE	C4-3 STADE	RCR-91-3055	DSC	EXO AT 206 C	-100
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	SYL THERM 800	TX B-3831	RCT-86-0305	DTA	NONE TO 325 C	0
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	DSC	NONE TO 200 C	0
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	MCC	SL EXO AT 25 C	-1
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	MCC	SL EXO AT 25 C	-0.5
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	DSC	NONE TO 200 C	0
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	MCC	SL EXO AT 25 C	-1
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	MCC	NONE AT 25 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0142	ARC	EXO AT 221 C	-157
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	DSC	NONE TO 200 C	0
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	MCC	NONE AT 25 C	0
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	DSC	SL EXO AT 65 C	-0.5
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	MCC	SL EXO AT 25 C	-0.5
ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	DSC	NONE TO 200 C	0

DOW A 022043
CONFIDENTIAL

ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	MCC	NONE AT 25 C	0
SORBATHENE	TRIFLUORODICHLOROETHANE (R-123)	C4-1 STADE	RCR-91-6405	ARC	SL EXO AT 162 C	INCOMPLETE
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	MCC	NONE AT 25 C	0
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	MCC	SL EXO AT 25 C	-0.5
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	DSC	NONE TO 200 C	0
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE 3071	TX B-451	RCT-91-0818	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE 3072	TX B-451	RCT-91-0818	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	MCC	NONE AT 25 C	0
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	MCC	EXO AT 25 C	-5.5
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	MCC	EXO AT 25 C	-5
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	MCC	EXO AT 25 C	-6.9
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	MCC	EXO AT 25 C	-8.6
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	MCC	NONE AT 25 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	DSC	NONE TO 200 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	MCC	NONE AT 25 C	0
SORBATHENE XU-43522.00 GASOLINE VAPOR RECOVERY		LARKIN LAB	RCM-92-0207	ARC	NONE TO 300 C	0

DO A 022044
CONFIDENTIAL

TABLE III

REACTIVITY OF ABSORBENT WITH PROCESS CHEMICAL (SORTED BY PLANT)

ABSORBENT	PROCESS CHEMICAL	PLANT	REF.	TEST	REACTIVITY & ONSET TEMP (C)	HEAT OF RXN (CAL/G)
SORBATHENE	1,1-DICHLORO-1-FLUOROETHANE (R-141B)	C4-1 STADE	RCR-91-3028	DSC	EXO AT 197 C	-1.2
SORBATHENE	1,1-DICHLORO-2,2,2-TRIFLUOROETHANE	C4-1 STADE	RCR-91-3029	DSC	EXO AT 194 C	-2.4
SORBATHENE	DICHLORO TETRAFLUOROETHANE (R-114)	C4-1 STADE	RCR-92-1091	DSC	EXO AT 249 C	-8.6
SORBATHENE	EICI + 1,1-DICHLORO-2-FLUOROETHANE	C4-1 STADE	RCR-91-3232	DSC	EXO AT 224 C	-6.7
SORBATHENE	ETHYLCHLORIDE (EICI)	C4-1 STADE	RCR-91-3231	DSC	EXO AT 232 C	-41
SORBATHENE	FLUORODICHLOROETHANE (R-141B)	C4-1 STADE	RCR-91-6406	ARC	SL EXO AT 157 C	INCOMPLETE
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	DSC	SL EXO AT 220 C	-1.2
SORBATHENE	FREON R-11	C4-1 STADE	RCR-92-1623	MCC	EXO AT 25 C	-6.7
SORBATHENE	FREON R-12	C4-1 STADE	RCR-92-0921	DSC	EXO AT -112 C	-8.8
SORBATHENE	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-3091	DSC	NONE TO 350 C	0
SORBATHENE	STYRENE	C4-1 STADE	RCR-91-6408	ARC	EXO AT 99 C	-177
SORBATHENE	TRIFLUORODICHLOROETHANE (R-123)	C4-1 STADE	RCR-91-6405	ARC	SL EXO AT 162 C	INCOMPLETE
SORBATHENE ON PU-FOAM	ETHYLACETATE	C4-1 STADE	RCR-91-3304	DSC	EXO AT 183 C	-4.3
SORBATHENE ON PU-FOAM	METHYLENE CHLORIDE	C4-1 STADE	RCR-91-6438	ARC	NONE TO 250 C	0
SORBATHENE	N-BUTANE	C4-3 STADE	RCR-91-3056	DSC	EXO AT 231 C	-29
SORBATHENE	STYRENE	C4-3 STADE	RCR-91-3055	DSC	EXO AT 206 C	-100
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0
OIL SORBENT BOOM TYPE 270	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	MCC	NONE AT 25 C	0
OIL SORBENT PAD TYPE 156	REGAL 32 LUBE OIL + 25% NaOH	CAUSTIC	92035	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	92035-0311	DTA	EXO AT 235 C	INCOMPLETE
FLOOR DRY SORBENT	EPICHLOROHYDRIN	GLYCERIN 2	RCT-85-0311	MCC	SL EXO AT 25 C	-0.3
CV DIATOMACEOUS EARTH	PROPYLENE OXIDE	GLYCOL 1	92150	DSC	EXO AT 146 C	INCOMPLETE
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
SAND	PDC + DEGREASER SOLVENT	GLYCOL 1	91304	ARC	NONE TO 200 C	0
SAND	PROPYLENE DICHLORIDE (PDC)	GLYCOL 1	91304	DSC	EXO AT 200 C	INCOMPLETE
SORBATHENE XFS-4022	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XUS-40323.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
SORBATHENE XUS-43493.00	PROPYLENE OXIDE	GLYCOL 1	92120	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	DSC	NONE TO 200 C	0
OIL-SORB	74% METHANOL, 15% EO, 4% EG	GLYCOL 2	91200	HOM	SL EXO AT 25 C	2 DEG C RISE
SORBATHENE XU-43522.00	GASOLINE VAPOR RECOVERY	LARKIN LAB	RCM-92-0207	ARC	NONE TO 300 C	0
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.8
FLOOR DRY ABSORBENT	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
FLOOR DRY SORBENT	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
FLOOR DRY SORBENT	5% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE

FLOOR DRY SORBENT	50% SODIUM HYDROXIDE	LGTI	92173	HOM	SL EXO AT 25 C	3 DEG C RISE
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	DSC	NONE TO 200 C	0
FLOOR DRY SORBENT	METHYL DIETHANOLAMINE	LGTI	RCL-92-0034	MCC	SL EXO AT 25 C	-1.8
OIL ABSORBENT PAD (3M)	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	28% HYDROCHLORIC ACID	LGTI	92173	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT PAD (3M)	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD (3M)	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	MCC	SL EXO AT 25 C	-1.1
OIL SORBANT (3M)	METHYL DIETHANOLAMINE	LGTI	92003	DSC	NONE TO 200 C	0
SPAGH SORB	21% PHOSPHORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	28% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	5% HYDROCHLORIC ACID	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	50% SODIUM HYDROXIDE	LGTI	92173	MCC	NONE AT 25 C	0
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	MCC	SL EXO AT 25 C	-2
SPAGH SORB	METHYL DIETHANOLAMINE	LGTI	RCL-92-0035	DSC	NONE TO 200 C	0
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	MCC	SL EXO AT 25 C	-2
SPAGH SORB	MIXED LAB WASTE	LGTI	92003	DSC	NONE TO 167 C	0
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
K SORB	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
K SORB	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	HOM	NONE AT 25 C	0
PEAT MOSS	BENZENE, TOLUENE, XYLENE	LHC 3	93013	DSC	NONE TO 200 C	0
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	HOM	SL EXO AT 25 C	1 DEG C RISE
PEAT MOSS	DIETHANOLAMINE	LHC 3	93013	DSC	NONE TO 200 C	0
CALCINED OIL ABSORBENT	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
FLY ASH	21% SULFURIC ACID IN WATER	METHANES	92002	MCC	EXO AT 25 C	-95
FLY ASH	METHYLENE CHLORIDE + CHLOROFORM	METHANES	91301	DSC	NONE TO 200 C	0
OIL ABSORBENT (CALCINED)	30-40% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	1 DEG C RISE
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	MCC	SL EXO AT 25 C	-4.9
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	HOM	SL EXO AT 25 C	4 DEG C RISE
OIL ABSORBENT (CALCINED)	60-80% SULFURIC ACID	METHANES	92033	DSC	NONE TO 200 C	0
PEAT MOSS	METHYLENE CHLORIDE	METHANES	92105	HOM	NONE AT 25 C	0
SPILL-KLEAN	METHYLENE CHLORIDE	METHANES	92105	HOM	ENDO AT 25 C	2 DEG C DROP
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	MCC	SL EXO AT 25 C	-0.8
OIL ABSORBENT (CALCINED)	DIESEL	PLS	92096	DSC	NONE TO 200 C	0
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
HI DRY	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
HI DRY	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0
HI DRY	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	METHYL DIETHANOLAMINE	PROMIX	93057	DSC	NONE TO 200 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	HOM	NONE AT 25 C	0
K SORB	NATURAL GASOLINE	PROMIX	93057	DSC	NONE TO 200 C	0

DO A 022046
 CONFIDENTIAL

OIL ABSORBENT (CALCINED)	METHYLDIETHANOLAMINE	PROMIX	91103	MCC	NONE AT 25 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	HOM	NONE AT 25 C	0
K SORB	ALLYL PROPYLENE DICHLORIDE	SOL/EDC	93096	DSC	EXO AT 150 C	INCOMPLETE
SORBATHENE	1,1,1-TRICHLOROETHANE	SOLVENTS	RCM-91-0221	ARC	NONE TO 250 C	0
SORBATHENE XUS-43493	PERCHLOROETHYLENE	SOLVENTS	RCM-92-0456	ARC	NONE TO 300 C	0
SORBATHENE	METHYLAL + TRIMETHYLAMINE	STADE R&D	RCR-90-0126	DSC	EXO AT 48 C	-6.9
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	DSC	NONE TO 200 C	0
ABSORBENT BOOM	AMOKON 32 OIL	TX A-1230	RCT-91-0252	MCC	NONE AT 25 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0256	DSC	NONE TO 200 C	0
ABSORBENT BOOM	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0256	MCC	NONE AT 25 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	DSC	NONE TO 200 C	0
ABSORBENT BOOM	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0248	MCC	SL EXO AT 25 C	-0.7
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	DSC	SL EXO AT 65 C	-0.5
ABSORBENT BOOM	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0241	MCC	SL EXO AT 25 C	-0.7
ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	DSC	NONE TO 200 C	0
ABSORBENT BOOM	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0245	MCC	SL EXO AT 25 C	-0.5
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0237	MCC	SL EXO AT 25 C	-0.5
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	DSC	NONE TO 200 C	0
ABSORBENT BOOM	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0260	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	DSC	NONE TO 200 C	0
ABSORBENT PAD	AMOKON 32 OIL	TX A-1230	RCT-91-0251	MCC	NONE AT 25 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	DSC	NONE TO 200 C	0
ABSORBENT PAD	DOW CORNING 561 SILICONE OIL	TX A-1230	RCT-91-0255	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	DSC	NONE TO 200 C	0
ABSORBENT PAD	NUTO H-46 (EXXON)	TX A-1230	RCT-91-0247	MCC	SL EXO AT 25 C	-0.7
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 33 OIL (EXXON)	TX A-1230	RCT-91-0240	MCC	SL EXO AT 25 C	-0.5
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	DSC	NONE TO 200 C	0
ABSORBENT PAD	TERESSTIC 68 (EXXON)	TX A-1230	RCT-91-0244	MCC	NONE AT 25 C	0
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVIS J 13 (EXXON)	TX A-1230	RCT-91-0236	MCC	NONE AT 25 C	0
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	DSC	NONE TO 200 C	0
ABSORBENT PAD	UNIVOLT N 61 MINERAL OIL (EXXON)	TX A-1230	RCT-91-0259	MCC	SL EXO AT 25 C	-0.5
SORBITOL	ETHYLENE CARBOANTE/K CARBONATE	TX B-1470	RCT-93-0559	DSC	EXO AT 191 C	INCOMPLETE
SORBITOL	ETHYLENE CARBONATE	TX B-1470	RCT-93-0558	DSC	EXO AT 131 C	-6.9
SORBITOL	30/70% HEXA & ME HEXAHYDROPHthalic ANHYDR	TX B-1470C	RCT-93-0040	DSC	EXO AT 151 C	-13.6
SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	85% BUTYLENE OXIDE, 8.5% ETHYL ACETATE	TX B-1510	RCT-93-0063	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	90% 1,2-DICHLOROETHYLENE, 10% CL'D C2'S	TX B-1510	RCT-93-0065	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	B-RECYCLE (40% TETRACHLOROETHANE, ETC)	TX B-1510	RCT-93-0071	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	DSC	NONE TO 200 C	0

SORBENT ABSORBENT PAD	CRUDE PERCHLOROETHYLENE	TX B-1510	RCT-93-0069	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	DOWTHERM G	TX B-1510	RCT-93-0077	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	SUN OIL 21	TX B-1510	RCT-93-0075	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	TRICHLOROETHYLENE	TX B-1510	RCT-93-0067	MCC	NONE AT 25 C	0
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	DSC	NONE TO 200 C	0
SORBENT ABSORBENT PAD	ZERICE 68 COMPRESSOR OIL	TX B-1510	RCT-93-0073	MCC	NONE AT 25 C	0
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	DSC	NONE TO 200 C	0
OYLGONE (BAG)	SYNESSTIC 100	TX B-2405	RCT-92-0074	MCC	SL EXO AT 25 C	-1
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	DSC	NONE TO 200 C	0
OYLGONE (BAG)	TERESSTIC 32	TX B-2405	RCT-92-0076	MCC	SL EXO AT 25 C	-1
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	SYNESSTIC 100	TX B-2405	RCT-92-0075	MCC	SL EXO AT 25 C	-0.5
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	DSC	NONE TO 200 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0077	MCC	NONE AT 25 C	0
OYLGONE (PEAT)	TERESSTIC 32	TX B-2405	RCT-92-0142	ARC	EXO AT 221 C	-157
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (CONDENSATE)	TX B-2405	RCT-92-0081	MCC	EXO AT 25 C	-5.5
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (COOLING TOWER)	TX B-2405	RCT-92-0079	MCC	EXO AT 25 C	-5
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (POTABLE)	TX B-2405	RCT-92-0078	MCC	EXO AT 25 C	-6.9
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	DSC	NONE TO 200 C	0
SPILLKLEEN	WATER (RIVER)	TX B-2405	RCT-92-0080	MCC	EXO AT 25 C	-8.6
OIL ABSORBENT PAD	DOWTHERM A	TX B-3831	RCT-86-0306	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	DOWTHERM J	TX B-3831	RCT-86-0304	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	SYLTHERM 800	TX B-3831	RCT-86-0305	DTA	NONE TO 325 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	TOLUENE DIISOCYANATE	TX B-451	RCT-91-0819	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE 3071	TX B-451	RCT-91-0818	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE 3072	TX B-451	RCT-91-0818	MCC	NONE AT 25 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	DSC	NONE TO 300 C	0
OIL ABSORBENT PAD	VORANATE TCPA ISOCYANATE	TX B-451	RCT-91-0817	MCC	NONE AT 25 C	0
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	DSC	EXO AT 36 C	-101
OCLANSORB	25% SODIUM HYDROXIDE	TX B-6201	RCT-91-1232	MCC	EXO AT 25 C	-5.5
OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	DSC	NONE TO 200 C	0
OCLANSORB	95% PHENOL IN WATER	TX B-6201	RCT-91-1235	MCC	NONE AT 25 C	0
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	DSC	NONE TO 200 C	0
OCLANSORB	ACETONE	TX B-6201	RCT-91-1237	MCC	NONE AT 25 C	0
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	DSC	EXO AT 150 C	INCOMPLETE
OCLANSORB	BENZYL TRIMETHYL AMMONIUM CHLORIDE	TX B-6201	RCT-91-1234	MCC	NONE AT 25 C	0
OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	DSC	NONE TO 200 C	0

DO A 022048
 CONFIDENTIAL

OCLANSORB	EPICHLOROHYDRIN	TX B-6201	RCT-91-1233	MCC	NONE AT 25 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	DSC	NONE TO 200 C	0
OCLANSORB	METHYL ISOBUTYL KETONE	TX B-6201	RCT-91-1236	MCC	NONE AT 25 C	0
ABSORBENT BOOM	STYRENE	TX B-7101	RCT-87-0890	ARC	EXO AT 96 C	-72
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	DSC	EXO AT 143 C	-147
FUMEAWAY CRYSTALS	EPICHLOROHYDRIN	TX B-7503	RCT-92-0614	MCC	SL EXO AT 25 C	-0.5
OCLANSORB	43% 2,3-DICHLOROPROPENE,23% EPI, ...	TX B-7503	RCT-92-0477	DSC	EXO AT 154 C	-50
OCLANSORB	43% 2,3-DICHLOROPROPENE,23% EPI, ...	TX B-7503	RCT-92-0477	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	DSC	EXO AT 128 C	-6.2
OCLANSORB	ALLYL CHLORIDE	TX B-7503	RCT-92-0389	MCC	NONE AT 25 C	0
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	DSC	EXO AT 141 C	-11
OCLANSORB	ALLYL CHLORIDE TARS (T-314 BOTTOMS)	TX B-7503	RCT-92-0454	MCC	NONE AT 25 C	0
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	DSC	EXO AT 146 C	>-323
OCLANSORB	EPICHLOROHYDRIN + WATER	TX B-7503	RCT-92-0342	MCC	NONE AT 25 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	DSC	NONE TO 200 C	0
OCLANSORB	45% PHENOL, 35% ACETONE, 20% CUMENE	TX OC-301	RCT-91-1206	MCC	NONE AT 25 C	0
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	DSC	EXO AT 60 C	INCOMPLETE
OCLANSORB	50% SODIUM HYDROXIDE	TX OC-301	RCT-91-1204	MCC	EXO AT 25 C	-1
OCLANSORB	80% CUMENE HYDROPEROXIDE,20% CUMEN	TX OC-301	RCT-91-1207	DSC	NONE TO 200 C	0
OCLANSORB	80% CUMENE HYDROPEROXIDE,20% CUMEN	TX OC-301	RCT-91-1207	MCC	NONE AT 25 C	0
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	DSC	EXO AT 56 C	-6.9
OCLANSORB	98% SULFURIC ACID	TX OC-301	RCT-91-1200	MCC	EXO AT 25 C	-13
OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	DSC	EXO AT 67 C	-27
OCLANSORB	BETZ OPTIMEEN	TX OC-301	RCT-91-1199	MCC	SL EXO AT 25 C	-3.8
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	DSC	NONE TO 200 C	0
OCLANSORB	CUMENE	TX OC-301	RCT-91-1208	MCC	NONE AT 25 C	0
OCLANSORB	NUTO 48 LUBE OIL	TX OC-301	RCT-91-1201	DSC	NONE TO 200 C	0
OCLANSORB	NUTO 48 LUBE OIL	TX OC-301	RCT-91-1201	MCC	NONE AT 25 C	0
OCLANSORB	PHENOL	TX OC-301	RCT-91-1209	DSC	NONE AT 25 C	0
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	DSC	NONE TO 200 C	0
OCLANSORB	TERESSTIC 33 LUBE OIL	TX OC-301	RCT-91-1205	MCC	NONE AT 25 C	0
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	DSC	NONE TO 200 C	0
OCLANSORB	VAR SOL	TX OC-301	RCT-91-1202	MCC	NONE AT 25 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	DSC	NONE TO 200 C	0
OCLANSORB	ZERICE 68 LUBE OIL	TX OC-301	RCT-91-1203	MCC	NONE AT 25 C	0

DO A 022049
CONFIDENTIAL

Distribution List

LOUISIANA

B. W. Bailey	- 3301W	C. D. Mercer	- 5301
C. A. Barrios	- 807	C. D. Messelt	- 3502W
C. B. Carpenter	- 6605	W. S. Milligan	- 5301
W. W. Chew	- 6650	S. H. Mims	- 3801
B. Cisneros	- 2510	M. T. Mitchell	- 807
S. R. Cole	- 6601	C. D. Modtland	- 6801
S. Corbino	- 3801	J. C. Monroe	- 3305
K. D. Diamond	- 1901	M. Oubre	- 1601
R. S. Fitzgerald	- 4101	R. L. Peebles	- 1601
K. R. Fox	- 2801	B. G. Pope	- 2509
T. F. Grant	- 5501	W. T. Sharkey	- 3703
N. L. Grissom	- 4801	J. W. Shively	- 6650
J. W. Gross	- 2511	R. B. Speed	- 901
T. M. Gunn	- 1701	R. L. Stevens	- 4350
D. A. Haney	- 4601	R. D. Summers	- 2510
S. F. Hanrahan	- 3305	E. T. Supple	- 3801
J. E. Henry	- 1501	R. D. Thornhill	- 2601
C. R. Holmes	- 3302P	G. P. Townsend	- 6650
R. D. Hudson	- 3601	W. A. Turner	- 4501
C. E. Jackson	- 2901	P. L. Usie	- 4109
W. L. Jackson	- 6801	M. L. Williams	- 807
K. L. Johnson	- 8601	B. G. Witt	- 2502
D. S. Jones	- 3502W	*Patent Department	- 2502
G. C. LeBlanc	- 5701	CRI (5)	- 2507
V. E. McMurray	- 8601		

MIDLAND

A. Chakrabarti	- 1897C
*C. A. Dudley	- 1897F
J. S. Kelyman	- 566
J. B. Powers	- 1897C
CRI (1)	- 566

FORT SASKATCHEWAN

*R. A. Wagner	- 91A
---------------	-------

PITTSBURG

*T. W. Regulski	- 463
-----------------	-------

*Summary Only

FREEPORT

*W. W. Henslee	- B-2020
*L. M. Kroposki	- B-1225
D. J. Leggett	- B-1216
*D. C. Schulz	- B-101
W. E. Shewbart	- B-101
*S. F. Spangenberg	- B-1225
CRI (1)	- B-1210

SARNIA

*J. R. MacLauchlan	- 115
--------------------	-------

STADE

*E. L. Dreher	- C4-1
---------------	--------

DO A 022050
CONFIDENTIAL