



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Lean Oil
Version # 01
Revision date 06-02-2010
CAS # Mixture
Product use Hydrocarbon fracturing and Well Servicing Fluid.

Manufacturer/Supplier Devon US Operations
20 North Broadway
Oklahoma City, OK 73102-8260
Telephone: (405) 235-3611
-
Devon Canadian Operations
Calgary, AB. T2P 4H2
2000, 400 – 3rd Avenue SW.
Telephone: (403) 232-7100

Emergency Emergency Chemtrec:
Within the USA (800) 424-9300
Outside the USA (703) 527-3887
Devon Canada Emergency Phone:
(403) 232-7100

2. Hazards Identification

Physical state Liquid.

Emergency overview DANGER!

Flammable liquid and vapor. Will be easily ignited by heat, spark or flames.
Flammable liquid - may release vapors that form flammable mixtures at or above the flash point.
Containers may explode when heated.

Aspiration hazard: Harmful or fatal if swallowed. Can enter lungs and cause damage. Causes skin irritation.

Hydrogen sulfide, a highly toxic gas, is present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Contains benzene. May cause cancer. May cause heritable genetic damage. May cause drowsiness, dizziness, loss of consciousness and death.

OSHA regulatory status This product is hazardous according to OSHA 29CFR 1910.1200.

Potential health effects

Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.

Eyes May cause eye irritation.

Skin Causes skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis. Human and animal studies show that benzene is absorbed through the skin. However, absorption through the skin is normally low because benzene evaporates rapidly. In most cases, any skin contact would also involve significant inhalation exposure.

Inhalation Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. Contains benzene which may cause cancer and cause blood disorders. Contains n-hexane which may cause peripheral nerve damage.

Ingestion Harmful or fatal if swallowed. Can enter lungs and cause damage. Ingestion may cause vomiting, nausea, diarrhea or other systemic effects.

Target organs Skin. Respiratory system. Central nervous system. Lung

Chronic effects	Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). May cause central nervous system effects. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/fetus. The relevance of these animal studies to humans has not been fully established. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.).
Signs and symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritation of nose and throat. Defatting of the skin. Dermatitis.
Potential environmental effects	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Complex mixture of naturally occurring C5+ alkanes & H ₂ S, product composition varies with source, including:	64741-47-5	100
Naphtha (petroleum), heavy straight-run	64741-41-9	55-65
n-Hexane	110-54-3	15-25
Trimethyl benzene	25551-13-7	5-15
Xylene	1330-20-7	1-5
Benzene	71-43-2	1-5
Ethylbenzene	100-41-4	1-5
Toluene	108-88-3	0-5
Cyclopentanes	Mixture	0-5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Skin contact	Remove contaminated clothing. Wash with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
Inhalation	Move injured person into fresh air and keep person calm under observation. If breathing is difficult, give oxygen. Get medical attention if any discomfort occurs.
Ingestion	Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Seek immediate medical attention or advice.

Notes to physician Treat symptomatically. The effects might be delayed.

General advice Get medical attention if any discomfort develops. Refer to the Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide) and the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG) as necessary.

5. Fire Fighting Measures

Flammable properties The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Material will float and can be re-ignited on surface of water.

Extinguishing media

Suitable extinguishing media	Dry chemical, foam, carbon dioxide, water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterized. Sulphur Oxides (SO_x). Nitrogen Oxides (NO_x).

Protective equipment and precautions for firefighters	Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode. Use approved gas detectors in confined spaces.
Specific methods	In the event of fire and/or explosion do not breathe fumes. Evacuate area. Water spray should be used to cool containers.

6. Accidental Release Measures

Personal precautions	Eliminate all sources of ignition in vicinity of released vapors. Evacuate all non-essential personnel to an area upwind. Stop leak if possible without any risk. Ventilate enclosed areas to prevent formation of toxic, flammable or oxygen deficient atmospheres. Water spray may be used to reduce vapors. Avoid vapor cloud even with proper respiratory protective equipment. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5). In case of spills, beware of slippery floors and surfaces.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent material from entering drains, sewers or low lying areas. See section 13 for waste disposal information. Do not contaminate water.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Remove sources of ignition. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Small Spills: Absorb spillage with non-combustible, absorbent material. Large Spills: Remove with vacuum trucks or pump to storage/salvage vessels. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Wash area with soap and water. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labeled container.

7. Handling and Storage

Handling	Special precautions should be taken when entering or handling equipment in this type of produced oil service because of possible radioactive contamination. All equipment should be checked for radioactivity or opened to the atmosphere and have forced ventilation applied for at least 4 hours prior to entry or handling. Avoid direct skin contact with any surface. Avoid generation of dust, smoke, fumes, etc. in the work area, or if they cannot be avoided, a tested and certified radionuclide dust respirator should be worn. Smoking, eating, or drinking should be prohibited when working with the equipment. Employees should wash thoroughly with soap and water and discard contaminated clothing after entering or handling the equipment. Access to work area should be restricted to people handling the product only. Caution! Vapors may be present in the headspace of closed containers. Ventilate after opening. The inherent toxic and olfactory (sense of smell) fatiguing properties of hydrogen sulfide require that air monitoring alarms be used if concentrations are expected to reach harmful levels, such as in enclosed spaces, heated transport vessels and spill or leak situations. If the air concentration exceeds 10 ppm, the area should be evacuated unless respiratory protection is in use. Wear appropriate personal protective equipment. Immediately change contaminated clothes. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Ground container and transfer equipment to eliminate static electric sparks. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Be aware of potential for surfaces to become slippery. Observe good industrial hygiene practices.
Storage	Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Keep in a cool, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components

	Type	Value
Benzene (71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethylbenzene (100-41-4)	STEL	125 ppm
	TWA	100 ppm
n-Hexane (110-54-3)	TWA	50 ppm
Toluene (108-88-3)	TWA	20 ppm
Trimethyl benzene (25551-13-7)	TWA	25 ppm

Components	Type	Value
Xylene (1330-20-7)	STEL	150 ppm
	TWA	100 ppm
U.S. - OSHA		
Components	Type	Value
Benzene (71-43-2)	Ceiling	25 ppm
	STEL	5 ppm
	TWA	10 ppm
Ethylbenzene (100-41-4)	PEL	435 mg/m3
		100 ppm
	STEL	545 mg/m3
	TWA	125 ppm
n-Hexane (110-54-3)		435 mg/m3
		100 ppm
	PEL	500 ppm
Toluene (108-88-3)		1800 mg/m3
	TWA	180 mg/m3
		50 ppm
Trimethyl benzene (25551-13-7)	Ceiling	300 ppm
	STEL	560 mg/m3
	TWA	150 ppm
Xylene (1330-20-7)		200 ppm
		375 mg/m3
Xylene (1330-20-7)	TWA	25 ppm
		125 mg/m3
Xylene (1330-20-7)	PEL	435 mg/m3
	STEL	100 ppm
	TWA	150 ppm
Xylene (1330-20-7)		655 mg/m3
		100 ppm
		435 mg/m3
Canada - Alberta		
Components	Type	Value
Benzene (71-43-2)	STEL	2.5 ppm
		8 mg/m3
	TWA	1.6 mg/m3
Ethylbenzene (100-41-4)		0.5 ppm
	STEL	125 ppm
	TWA	543 mg/m3
n-Hexane (110-54-3)		100 ppm
		434 mg/m3
	TWA	50 ppm
Toluene (108-88-3)		176 mg/m3
		50 ppm
	TWA	188 mg/m3
Trimethyl benzene (25551-13-7)		123 mg/m3
	TWA	25 ppm
Canada - British Columbia		
Components	Type	Value
Benzene (71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethylbenzene (100-41-4)	STEL	125 ppm
	TWA	100 ppm
n-Hexane (110-54-3)	TWA	20 ppm
Toluene (108-88-3)	TWA	20 ppm
Trimethyl benzene (25551-13-7)	TWA	25 ppm
Xylene (1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Additional exposure data	OSHA: The acceptable max. peak above the ceiling concentration for an 8-hour shift is: 50 ppm. The acceptable duration of the peak above the ceiling concentration is: 10 minutes once, only if no other measureable exposure occurs
Engineering controls	Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Provide adequate ventilation and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.
Personal protective equipment	
Eye / face protection	Wear goggles/face shield.
Skin protection	Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Protection suit must be worn. Anti-static and flame-retardant protective clothing is recommended. Suitable gloves can be recommended by the glove supplier.
Respiratory protection	Wear approved respiratory protection when working with this material unless ventilation is adequate to keep airborne concentrations below recommended exposure standards. Note: If any of the applicable hydrogen sulfide standards are likely to be exceeded, positive supplied-air respiratory protection must be used. The ACGIH TWA for hydrogen sulfide is 10 ppm. The OSHA STEL is 15 ppm.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately. Observe any medical surveillance requirements.

9. Physical & Chemical Properties

Color	Clear to Amber to Black.
Odor	Mild. Hydrocarbon-like.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	> 96.8 °F (> 36 °C)
Flash point	75.2 °F (24 °C) ASTM D-93
Evaporation rate	Not available.
Flammability	Not available.
Flammability limits in air, upper, % by volume	7
Flammability limits in air, lower, % by volume	1
Vapor pressure	Not available.
Vapor density	> 3
Specific gravity	0.78 (15°C)
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 240.8 °F (> 116 °C)
Decomposition temperature	Not available.
Viscosity	< 5 cSt @ 104 °F (40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological Information

Toxicological data

Components

Test Results

Ethylbenzene (100-41-4)	Acute Dermal LD50 Rabbit: > 5000 mg/kg Acute Oral LD50 Rat: 3500 mg/kg
Toluene (108-88-3)	Acute Inhalation LC50 Mouse: 12.5 - 22.8 mg/l 4 days Acute Oral LC50 Rat: 636 mg/kg Acute Oral LD50 Rat: 2600 - 7500 mg/kg
Xylene (1330-20-7)	Acute Oral LD50 Rat: 4300 mg/kg
Trimethyl benzene (25551-13-7)	Acute Dermal LD50 Rabbit: > 3160 mg/kg Acute Inhalation LC50 Rat: > 2000 mg/l 48 Hours Acute Oral LD50 Rat: 8970 mg/kg
Benzene (71-43-2)	Acute Oral LD50 Mouse: 4700 mg/kg Acute Oral LD50 Rat: 3306 mg/kg

Toxicological information

This product may contain detectable but varying quantities of the naturally occurring radioactive substance radon 222. The amount in the gas itself is not hazardous, but since radon rapidly decays ($t_{1/2} = 3.82$ days) to form other radioactive elements including lead 210, polonium 210, and bismuth 210, equipment may be radioactive. The radon daughters are solids and therefore may attach to dust particles or form films and sludges in equipment. Inhalation, ingestion or skin contact with radon daughters can lead to the deposition of radioactive material in the lungs, bone, blood forming organs, intestinal tract, kidney and colon. Occupational exposure to radon and radon daughters has been associated with an increased risk of lung cancer in underground uranium miners. Follow the special precautions listed in handling and storage section of this document (see section 7).

Acute effects

Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. May irritate and cause stomach pain, vomiting, diarrhea and nausea.

Local effects

Irritating to skin. May cause eye irritation.

Sensitization

May cause eczema-like skin disorders (dermatitis). May cause photosensitization, evidenced by repeated occurrence of a dermatitic rash on exposure to sunlight.

Chronic effects

Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne. May cause damage to the liver. Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/fetus. The relevance of these animal studies to humans has not been fully established. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.).

Carcinogenicity

May cause cancer. Contains benzene, a known human carcinogen, which may cause leukemia.

ACGIH Carcinogens

Benzene (CAS 71-43-2)
Ethylbenzene (CAS 100-41-4)

A1 Confirmed human carcinogen.
A3 Confirmed animal carcinogen with unknown relevance to humans.
A4 Not classifiable as a human carcinogen.
A4 Not classifiable as a human carcinogen.

Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)
Ethylbenzene (CAS 100-41-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

1 Carcinogenic to humans.
2B Possibly carcinogenic to humans.
3 Not classifiable as to carcinogenicity to humans.
3 Not classifiable as to carcinogenicity to humans.

US NTP Report on Carcinogens: Known carcinogen

Benzene (CAS 71-43-2)

Known carcinogen.

US OSHA Specifically Regulated Substances: Cancer hazard

Benzene (CAS 71-43-2)

Cancer hazard.

Epidemiology	Pre-existing skin conditions including dermatitis might be aggravated by exposure to this product.
Mutagenicity	May cause heritable genetic damage.
Reproductive effects	Possible birth defect hazard based on animal data.
Further information	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Components of the product may be absorbed into the body through the skin.

12. Ecological Information

Ecotoxicological data

Components

Test Results

Ethylbenzene (100-41-4)	EC50 Water flea (Daphnia magna): 1.37 - 4.4 mg/l 48 hours LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 4.2 mg/l 96 hours
Toluene (108-88-3)	EC50 Water flea (Daphnia magna): 5.46 - 9.83 mg/l 48 hours LC50 Coho salmon,silver salmon (Oncorhynchus kisutch): 5.5 mg/l 96 hours
n-Hexane (110-54-3)	LC50 Fathead minnow (Pimephales promelas): 2.101 - 2.981 mg/l 96 hours
Trimethyl benzene (25551-13-7)	LC50 Fathead minnow (Pimephales promelas): 7.19 - 8.28 mg/l 96 hours
Benzene (71-43-2)	EC50 Water flea (Daphnia magna): 8.76 - 15.6 mg/l 48 hours LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 5.3 mg/l 96 hours

Ecotoxicity	Oil spills are generally hazardous to the environment.
Environmental effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.
Aquatic toxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence and degradability	The degradability of the product has not been stated. The product meets the definition of the International Oil Pollution Compensation (IPOC) Fund as being a "persistent" oil.
Bioaccumulation / Accumulation	No data available on bioaccumulation.
Partition coefficient (n-octanol/water)	Not available.
Mobility in environmental media	The product is insoluble in water. It will spread on the water surface while some of the components will eventually sediment in water systems. The volatile components of the product will spread in the atmosphere.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.
Waste from residues / unused products	Follow all applicable MARPOL requirements for disposal of waste.
Contaminated packaging	Dispose of in accordance with local regulations.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1268
Proper shipping name	Petroleum distillates, n.o.s. (Complex mixture of naturally occurring C5+ alkanes & H2S, product composition varies with source)
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	3

Additional information:

Special provisions 144, B1, IB3, T4, TP1, TP29
Packaging exceptions 150
Packaging non bulk 203
Packaging bulk 242
ERG number 128

DOT BULK

Basic shipping requirements:

UN number UN1268
Proper shipping name Petroleum distillates, n.o.s.
Hazard class 3
Packing group III
Labels required 3

Additional information:

Special provisions 144, B1, IB3, T4, TP1, TP29
Packaging exceptions 150
Packaging non bulk 203
Packaging bulk 242
ERG number 128

IATA

Basic shipping requirements:

UN number 1268
Proper shipping name Petroleum distillates, n.o.s. (Complex mixture of naturally occurring C5+ alkanes & H2S, product composition varies with source)
Hazard class 3
Packing group III

IMDG

Basic shipping requirements:

UN number 1268
Proper shipping name Petroleum distillates, n.o.s. (Complex mixture of naturally occurring C5+ alkanes & H2S, product composition varies with source)
Hazard class 3
Packing group III
Environmental hazards
Marine pollutant Yes
EmS No. F-E, S-E

TDG

Basic shipping requirements:

Proper shipping name Petroleum distillates, n.o.s. (Complex mixture of naturally occurring C5+ alkanes & H2S, product composition varies with source)
Hazard class 3
UN number UN1268
Packing group III
Marine pollutant Yes



DOT



DOT BULK



IATA



IMDG



TDG

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Benzene (CAS 71-43-2)	0.1 %
Ethylbenzene (CAS 100-41-4)	0.1 %
n-Hexane (CAS 110-54-3)	1.0 %
Toluene (CAS 108-88-3)	1.0 %
Trimethyl benzene (CAS 25551-13-7)	1.0 %
Xylene (CAS 1330-20-7)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Trimethyl benzene (CAS 25551-13-7)	Listed.
Xylene (CAS 1330-20-7)	Listed.

CERCLA (Superfund) reportable quantity (lbs)

n-Hexane	100
Xylene	1000
Benzene	10
Ethylbenzene	100
Toluene	100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Drug Enforcement Agency (DEA) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification
B2 - Flammable/Combustible
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



State regulations

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

US - California Hazardous Substances (Director's): Listed substance

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Trimethyl benzene (CAS 25551-13-7)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987 Carcinogenic.
Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004 Carcinogenic.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Developmental toxin.
Toluene (CAS 108-88-3)	Listed: January 1, 1991 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009 Female reproductive toxin.
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US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Male reproductive toxin.
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US - Massachusetts RTK - Substance: Listed substance

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Trimethyl benzene (CAS 25551-13-7)	Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Benzene (CAS 71-43-2)	500 LBS
Ethylbenzene (CAS 100-41-4)	500 LBS
n-Hexane (CAS 110-54-3)	500 LBS
Toluene (CAS 108-88-3)	500 LBS
Trimethyl benzene (CAS 25551-13-7)	500 LBS
Xylene (CAS 1330-20-7)	500 LBS

US - New Jersey RTK - Substances: Listed substance

Toluene (CAS 108-88-3)	Listed.
Trimethyl benzene (CAS 25551-13-7)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Trimethyl benzene (CAS 25551-13-7)	Listed.
Xylene (CAS 1330-20-7)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzene (CAS 71-43-2)	Special hazard.
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16. Other Information**HMIS® ratings**

Health: 2*
 Flammability: 3
 Physical hazard: 0

NFPA ratings

Health: 2
 Flammability: 3
 Instability: 0

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

Issue date

06-02-2010