



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	MSO Feedstock
Revision date	04-27-2011
Version #	01
CAS #	Mixture
MSDS Number	123
Product use	This product is intended for use in engineered processes, such as drilling mud solvent. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.
Synonym(s)	Mineral Seal Oil Feedstock, Drilling Mud Solvent See section 16 for complete information.
Manufacturer/Supplier	Valero Marketing & Supply Company and Affiliates P.O. Box 696000 San Antonio, TX 78269-6000 General Assistance 210-345-4593
Emergency	24 Hour Emergency 866-565-5220 1-800-424-9300 (CHEMTREC USA)

2. Hazards Identification

Physical state	Liquid.
Appearance	Clear, straw-colored liquid.
Emergency overview	DANGER! Combustible liquid and vapor. Will be easily ignited by heat, spark or flames. Heat may cause the containers to explode. Harmful if inhaled, absorbed through skin, or swallowed. Aspiration may cause lung damage. Irritating to eyes, respiratory system and skin. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Possible cancer hazard - may cause cancer based on animal data. Prolonged exposure may cause chronic effects. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury.
Skin	Harmful if absorbed through skin. Irritating to skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Harmful if inhaled. Irritating to respiratory system. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. May cause breathing disorders and lung damage. May cause cancer by inhalation. Prolonged inhalation may be harmful.
Ingestion	Harmful if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Irritating to mouth, throat, and stomach.
Target organs	Blood. Eyes. Liver. Respiratory system. Skin. Kidneys. Central nervous system.
Chronic effects	Possible cancer hazard - may cause cancer based on animal data. Liver injury may occur. Kidney injury may occur. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash.
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
Distillates (petroleum), hydrotreated middle	64742-46-7	95 - 100
Hexane (other isomers)	96-14-0	1 - 3
Naphthalene	91-20-3	1 - 3
Nonane	111-84-2	1 - 3
Heptane	142-82-5	1 - 2
Octane (all isomers)	111-65-9	1 - 2
n-Hexane	110-54-3	1 - 2

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
Skin contact	Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Do not give mouth-to-mouth resuscitation. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General advice

If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Flammable properties

Combustible by OSHA criteria. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media	Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Specific hazards arising from the chemical	Vapor may cause flash fire. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.
Protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Vapors may form explosive air mixtures even at room temperature. Prevent buildup of vapors or gases to explosive concentrations. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.

Specific methods

In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers.

Hazardous combustion products

Carbon monoxide. Carbon Dioxide. Sulfur oxides. Nitrogen oxides (NO_x). Hydrocarbons.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Flammable. Review Fire Fighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 1-800-424-8802. For highway or railways spills, contact Chemtrec at 1-800-424-9300.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Use non-sparking tools and explosion-proof equipment.

Small Spills: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Do not allow material to contaminate ground water system. Should not be released into the environment.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Wear personal protective equipment. Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Use only with adequate ventilation. Wash thoroughly after handling. The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. When using, do not eat, drink or smoke. Avoid release to the environment.

Storage

Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. The pressure in sealed containers can increase under the influence of heat. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	TWA	5 mg/m ³	Inhalable fraction.
Heptane (142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
Hexane (other isomers) (96-14-0)	STEL	1000 ppm	
	TWA	500 ppm	
Naphthalene (91-20-3)	STEL	15 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
	TWA	10 ppm	
n-Hexane (110-54-3)	TWA	50 ppm	
Nonane (111-84-2)	TWA	200 ppm	
Octane (all isomers) (111-65-9)	TWA	300 ppm	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	PEL	5 mg/m3	Mist.
Heptane (142-82-5)	PEL	500 ppm 2000 mg/m3	
Naphthalene (91-20-3)	PEL	50 mg/m3 10 ppm	
n-Hexane (110-54-3)	PEL	500 ppm 1800 mg/m3	
Octane (all isomers) (111-65-9)	PEL	500 ppm 2350 mg/m3	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	STEL	10 mg/m3	Mist.
Heptane (142-82-5)	TWA STEL	5 mg/m3 500 ppm 2050 mg/m3	Mist.
Hexane (other isomers) (96-14-0)	TWA STEL	1640 mg/m3 400 ppm 3500 mg/m3	
Naphthalene (91-20-3)	TWA STEL	1000 ppm 500 ppm 1760 mg/m3 79 mg/m3	
n-Hexane (110-54-3)	TWA	15 ppm 10 ppm 52 mg/m3	
Nonane (111-84-2)	TWA	50 ppm 176 mg/m3	
Octane (all isomers) (111-65-9)	TWA	200 ppm 1050 mg/m3 300 ppm 1400 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Heptane (142-82-5)	STEL TWA	500 ppm 400 ppm
Hexane (other isomers) (96-14-0)	TWA	200 ppm
Naphthalene (91-20-3)	STEL TWA	15 ppm 10 ppm
n-Hexane (110-54-3)	TWA	20 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Nonane (111-84-2)	TWA	200 ppm
Octane (all isomers) (111-65-9)	TWA	300 ppm

Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Heptane (142-82-5)	STEL	500 ppm	
		2045 mg/m3	
	TWA	1635 mg/m3	
Hexane (other isomers) (96-14-0)	STEL	400 ppm	
		1000 ppm	
Naphthalene (91-20-3)	TWA	3520 mg/m3	
		500 ppm	
	STEL	1760 mg/m3	
n-Hexane (110-54-3)	STEL	78 mg/m3	
	TWA	15 ppm	
Nonane (111-84-2)	TWA	10 ppm	
		52 mg/m3	
Octane (all isomers) (111-65-9)	TWA	50 ppm	
		176 mg/m3	
Octane (all isomers) (111-65-9)	TWA	200 ppm	
		1050 mg/m3	
	STEL	375 ppm	
Octane (all isomers) (111-65-9)	TWA	1750 mg/m3	
		300 ppm	
		1400 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Heptane (142-82-5)	STEL	500 ppm	
		2050 mg/m3	
	TWA	1640 mg/m3	
Hexane (other isomers) (96-14-0)	STEL	400 ppm	
		1000 ppm	
Naphthalene (91-20-3)	TWA	3500 mg/m3	
		500 ppm	
	STEL	1760 mg/m3	
n-Hexane (110-54-3)	STEL	79 mg/m3	
	TWA	15 ppm	
Nonane (111-84-2)	TWA	10 ppm	
		52 mg/m3	
Octane (all isomers) (111-65-9)	TWA	50 ppm	
		176 mg/m3	
Octane (all isomers) (111-65-9)	TWA	200 ppm	
		1050 mg/m3	
	STEL	375 ppm	
Octane (all isomers) (111-65-9)	TWA	1750 mg/m3	
		300 ppm	
		1400 mg/m3	

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated middle (64742-46-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Heptane (142-82-5)	STEL	2000 mg/m3	
		500 ppm	
	TWA	400 ppm	
Hexane (other isomers) (96-14-0)	STEL	1600 mg/m3	
		1000 ppm	
	TWA	3500 mg/m3	
Naphthalene (91-20-3)	STEL	1760 mg/m3	
		500 ppm	
	TWA	75 mg/m3	
n-Hexane (110-54-3)	STEL	15 ppm	
		10 ppm	
	TWA	50 mg/m3	
Nonane (111-84-2)	STEL	50 ppm	
		176 mg/m3	
	TWA	250 ppm	
Octane (all isomers) (111-65-9)	STEL	1300 mg/m3	
		200 ppm	
	TWA	1050 mg/m3	
	STEL	375 ppm	
		1800 mg/m3	
	TWA	300 ppm	
		1450 mg/m3	

Engineering controls

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

Personal protective equipment

Eye / face protection

Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

Skin protection

Wear chemical-resistant, impervious gloves. Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

General hygiene considerations

Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Clear, straw-colored liquid.
Color	Straw.
Odor	Kerosene (strong).
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	-134.7 °F (-92.6 °C) Weighted average
Freezing point	Not available.

Boiling point	162.78 - 371.11
Flash point	125 - 190 °F (51.67 - 87.78 °C) Closed Cup
Evaporation rate	0.02
Flammability limits in air, upper, % by volume	8 %
Flammability limits in air, lower, % by volume	0.4 %
Vapor pressure	< 0.7 kPa (20°C)
Vapor density	3
Specific gravity	0.84 - 0.93 (60°F)
Solubility (water)	Very slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	257.2
Decomposition temperature	Not available.
Percent volatile	Negligible.

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions and recommended use.
Conditions to avoid	Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Incompatible materials	Strong oxidizing agents. Reducing agents. Acids. Alkalis.
Hazardous decomposition products	Carbon oxides. Sulfur oxides. Nitrogen oxides (NOx). Hydrocarbons.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components

Components	Test Results
Octane (all isomers) (111-65-9)	Acute Inhalation LC50 Rat: 118 mg/l 4 Hours
Nonane (111-84-2)	Acute Inhalation LC50 Rat: 3200 mg/l 4 Hours
Heptane (142-82-5)	Acute Inhalation LC50 Rat: 103 mg/l 4 Hours
Naphthalene (91-20-3)	Acute Dermal LD50 Rabbit: > 2 g/kg Acute Oral LD50 Rat: 490 mg/kg

Acute effects Harmful if inhaled, absorbed through skin, or swallowed. Harmful: may cause lung damage if swallowed. Irritating to eyes, respiratory system and skin. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea.

Local effects

US ACGIH Threshold Limit Values: Skin designation

Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.

Sensitization This substance may have a potential for sensitization which may provoke an allergic reaction among sensitive individuals.

Chronic effects Repeated exposure to naphthalene may cause cataracts, allergic skin rashes, destruction of red blood cells, and anemia, jaundice, kidney and liver damage. Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. Danger of serious damage to health by prolonged exposure. Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.

Subchronic effects Liver and kidney damage may occur after prolonged and repeated exposure.

Carcinogenicity

ACGIH Carcinogens

Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)

A2 Suspected human carcinogen.

Naphthalene (CAS 91-20-3)

A4 Not classifiable as a human carcinogen.

A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Naphthalene (CAS 91-20-3)

2B Possibly carcinogenic to humans.

US NTP Report on Carcinogens: Anticipated carcinogen

Naphthalene (CAS 91-20-3)

Anticipated carcinogen.

US NTP Report on Carcinogens: Known carcinogen

Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)

Known carcinogen.

Epidemiology

Studies have shown a risk of spontaneous abortions in women exposed to high concentrations of organic solvents during pregnancy.

Neurological effects

Chronic exposure to high concentrations of various hydrocarbon blends may lead to polyneuropathy (peripheral nerve damage), characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity. Numerous cases of polyneuritis have been reported following prolonged exposures to a petroleum fraction containing various isomers of heptane as major ingredients. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.

Further information

Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components

Test Results

n-Hexane (110-54-3)

LC50 Fathead minnow (*Pimephales promelas*): 2.101 - 2.981 mg/l 96 hours

Heptane (142-82-5)

LC50 Mozambique tilapia (*Tilapia mossambica*): 375 mg/l 96 hours

Naphthalene (91-20-3)

EC50 Water flea (*Daphnia magna*): 1.09 - 3.4 mg/l 48 hours
LC50 Rainbow trout, donaldson trout (*Oncorhynchus mykiss*): 0.91 - 2.82 mg/l 96 hours

Ecotoxicity

Contains a substance which causes risk of hazardous effects to the environment.

Environmental effects

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Aquatic toxicity

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Not available.

Bioaccumulation / Accumulation

No data available.

Partition coefficient (n-octanol/water)

Not available.

Mobility in environmental media

No data available.

13. Disposal Considerations

Waste codes

D001: Waste Flammable material with a flash point <140 °F

Disposal instructions

Dispose in accordance with all applicable regulations. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

DOT

Basic shipping requirements:

UN number

UN1268

Proper shipping name Petroleum distillates, n.o.s.
Hazard class Combustible Liquid
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 products, n.o.s.
Hazard class 3
Packing group III
Additional information:
ERG code 3L

IMDG

Basic shipping requirements:

UN number 1268
Proper shipping name PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S.
Hazard class 3
Packing group III
EmS No. F-E, S-E

TDG

Basic shipping requirements:

Proper shipping name PETROLEUM DISTILLATES, N.O.S.
Hazard class 3
UN number UN1268
Packing group III

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200 (OSHA) and 8 CCR § 5194 (Cal/OSHA). All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D)

Heptane (CAS 142-82-5) 1.0 % One-Time Export Notification only.
Naphthalene (CAS 91-20-3) 0.1 % One-Time Export Notification only.

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

Naphthalene (CAS 91-20-3) 0.1 %
n-Hexane (CAS 110-54-3) 1.0 %

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

Naphthalene (CAS 91-20-3) Listed.
n-Hexane (CAS 110-54-3) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Hexane (other isomers): 100
Naphthalene: 100
Nonane: 100
Heptane: 100
Octane (all isomers): 100
n-Hexane: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)	Not controlled
WHMIS status	Controlled
WHMIS classification	B3 - Flammable/Combustible D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

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

Benzene (CAS 71-43-2)	Listed.
Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Hexane (other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Nonane (CAS 111-84-2)	Listed.
Octane (all isomers) (CAS 111-65-9)	Listed.
Toluene (CAS 108-88-3)	Listed.

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

Benzene (CAS 71-43-2)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Naphthalene (CAS 91-20-3)	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.
Naphthalene (CAS 91-20-3)	Listed: April 19, 2002 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

Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Hexane (other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Nonane (CAS 111-84-2)	Listed.
Octane (all isomers) (CAS 111-65-9)	Listed.

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

Naphthalene (CAS 91-20-3)	500 LBS
n-Hexane (CAS 110-54-3)	500 LBS

US - New Jersey RTK - Substances: Listed substance

Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Nonane (CAS 111-84-2)	Listed.
Octane (all isomers) (CAS 111-65-9)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Benzene (CAS 71-43-2)	Listed.
Distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Hexane (other isomers) (CAS 96-14-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Nonane (CAS 111-84-2)	Listed.
Octane (all isomers) (CAS 111-65-9)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzene (CAS 71-43-2)	Special hazard.
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16. Other Information**Other information**

Note: This Material Safety Data Sheet applies to the listed products and synonym descriptions for Hazard Communication purposes only. Technical Specifications vary greatly depending on the products and are not reflected in this document. Consult specification sheets for technical information.

HMIS® ratings

Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 2
Instability: 0

Disclaimer

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