



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	Light Cycle Oil
Version #	01
Revision date	10-23-2010
MSDS Number	106
Product use	Refinery feedstock.
Synonym(s)	Middle Distillate See section 16 for complete information.
Manufacturer information	Valero Marketing & Supply Company and Affiliates P.O. Box 696000 San Antonio, TX 78269-6000 General Assistance 210-345-4593 24 Hour Emergency 866-565-5220 1-800-424-9300 (CHEMTREC USA)

2. Hazards Identification

Physical state	Liquid.
Appearance	Clear, straw liquid.
Emergency overview	WARNING! 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. Suspect cancer hazard - may cause cancer. Mutagen. May cause heritable genetic damage. May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility. Contains polycyclic aromatic compounds which have been shown to cause anemia, disorders of the liver, bone marrow and lymphoid tissues in rats following dermal application. Exhaust Fumes have been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties. Hydrogen sulfide, a highly toxic gas, may be present or released. 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. 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	Suspect cancer hazard - may cause cancer. Contains material which may have reproductive toxicity, teratogenic or mutagenic effects. Contains polycyclic aromatic compounds which have been shown to cause anemia, disorders of the liver, bone marrow and lymphoid tissues in rats following dermal application. 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), light catalytic cracked	64741-59-9	99-100
Naphthalene	91-20-3	0-3
Polycyclic Aromatic Hydrocarbons	130498-29-2	<1
Hydrogen sulfide	7783-06-4	0-0.2

Composition comments Small amount of hydrogen sulfide, a highly toxic gas, may be present, especially in the headspace of containers.

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 (CO₂).

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. 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 dust/fume/gas/mist/vapors/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
Hydrogen sulfide (7783-06-4)	STEL	5 ppm
	TWA	1 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Naphthalene (91-20-3)	STEL	15 ppm
	TWA	10 ppm

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

Components	Type	Value	Form
Distillates (petroleum), light catalytic cracked (64741-59-9)	PEL	5 mg/m3	Mist.
Hydrogen sulfide (7783-06-4)	Ceiling	20 ppm	
Naphthalene (91-20-3)	PEL	10 ppm	
		50 mg/m3	

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

Components	Type	Value	Form
Distillates (petroleum), light catalytic cracked (64741-59-9)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Hydrogen sulfide (7783-06-4)	Ceiling	21 mg/m3	
	TWA	15 ppm 10 ppm 14 mg/m3	
Naphthalene (91-20-3)	STEL	79 mg/m3	
		15 ppm	
	TWA	10 ppm 52 mg/m3	

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

Components	Type	Value
Hydrogen sulfide (7783-06-4)	Ceiling	10 ppm
Naphthalene (91-20-3)	STEL	15 ppm
	TWA	10 ppm

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

Components	Type	Value	Form
Distillates (petroleum), light catalytic cracked (64741-59-9)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Hydrogen sulfide (7783-06-4)	STEL	21 mg/m3	
		15 ppm	
		10 ppm 14 mg/m3	
Naphthalene (91-20-3)	STEL	78 mg/m3	
		15 ppm	
	TWA	10 ppm	
		52 mg/m3	

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

Components	Type	Value
Hydrogen sulfide (7783-06-4)	STEL	21 mg/m3
		15 ppm
		10 ppm 14 mg/m3

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

Components	Type	Value
Naphthalene (91-20-3)	STEL	15 ppm
		79 mg/m3
	TWA	52 mg/m3
		10 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), light catalytic cracked (64741-59-9)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Hydrogen sulfide (7783-06-4)	STEL	21 mg/m3	
		15 ppm	
	TWA	10 ppm	
Naphthalene (91-20-3)		14 mg/m3	
	STEL	75 mg/m3	
		15 ppm	
	TWA	10 ppm	
		50 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 liquid.

Color Clear/straw.

Odor Kerosene (strong).

Odor threshold Not available.

Physical state Liquid.

Form Liquid.

pH Not applicable.

Melting point Not available.

Freezing point Not available.

Boiling point 300 - 850.1 °F (148.89 - 454.49 °C)

Flash point > 100 °F (> 37.8 °C) Closed Cup

Evaporation rate Not available.

Flammability Combustible.

Flammability limits in air, upper, 8 % by volume

Flammability limits in air, lower, % by volume	0.4
Vapor pressure	< 0.7 kPa (20°C)
Vapor density	3 - 7
Specific gravity	0.84 - 0.93 (water=1)
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 500 °F (> 260 °C)
Decomposition temperature	Not available.

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. Acids. Alkalis.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides. Sulfur oxides. Hydrocarbons.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Test Results
Hydrogen sulfide (7783-06-4)	Acute Inhalation LC50 Mouse: > 0.024 mg/l 960 Minutes
Naphthalene (91-20-3)	Acute Inhalation LC50 Rat: > 0.38 mg/l 960 Minutes 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.
Sensitization	This product is not expected to cause skin sensitization.
Chronic effects	Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. Contains polycyclic aromatic compounds which have been shown to cause anemia, disorders of the liver, bone marrow and lymphoid tissues in rats following dermal application. 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	Blood disorders may occur after prolonged inhalation, prolonged skin contact and/or ingestion. Liver and kidney damage may occur after prolonged and repeated exposure.
Carcinogenicity	Lifetime skin painting studies conducted by the American Petroleum Institute, Exxon, and others have shown that similar products boiling between 175-370°C (350-700°F) usually produce skin tumors and/or skin cancer in laboratory mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined. Diesel exhaust has been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties.
ACGIH Carcinogens	
Naphthalene (CAS 91-20-3)	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.

Epidemiology	Contains polycyclic aromatic compounds which have been shown to cause anemia, disorders of the liver, bone marrow and lymphoid tissues in rats following dermal application. Studies have shown a risk of spontaneous abortions in women exposed to high concentrations of organic solvents during pregnancy.
Mutagenicity	Middle distillate fuels have been demonstrated to cause chromosome damage in the in vivo rat bone marrow cytogenetics assay, and mutagenic in the L5178Y mouse lymphoma assay.
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. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue) and/or damage.
Reproductive effects	May damage fertility or the unborn child. Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility. Avoid exposure to women during early pregnancy. Avoid contact during pregnancy/while nursing.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components	Test Results
Hydrogen sulfide (7783-06-4)	LC50 Lake whitefish (<i>Coregonus clupeaformis</i>): 0.002 mg/l 96 hours
Naphthalene (91-20-3)	LC50 Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>): 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

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.
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14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1268
Proper shipping name	Petroleum distillates, n.o.s.
Hazard class	- Combustible Liquid

Additional information:

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

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

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 TSCA Section 12(b) Export Notification: Export Notification requirement/De minimis concentration

Naphthalene (CAS 91-20-3) 0.1 % One-Time Export Notification only.

US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Spill: Reportable quantity

Hydrogen sulfide (CAS 7783-06-4) 100 LBS

US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Threshold Planning Quantity

Hydrogen sulfide (CAS 7783-06-4) 500 LBS

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

Naphthalene (CAS 91-20-3) 0.1 %

Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2) 0.1 % N590 Substance is not eligible for the de minimis exemption except for the purposes of supplier notification requirements.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Reportable threshold

Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2) 100 LBS N590

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

Naphthalene (CAS 91-20-3) Listed.

Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2) N590 Listed.

CERCLA (Superfund) reportable quantity (lbs)

Naphthalene 100

Hydrogen sulfide 100

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

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

B3 - Flammable/Combustible

D2A - Other Toxic Effects-VERY TOXIC

D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status****Country(s) or region**

Australia

Inventory name

Australian Inventory of Chemical Substances (AICS)

On inventory (yes/no)*

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

Country(s) or region	Inventory name	On inventory (yes/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 WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

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

Hydrogen sulfide (CAS 7783-06-4)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	Listed.

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

Naphthalene (CAS 91-20-3)	Listed.
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US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Naphthalene (CAS 91-20-3)	Listed: April 19, 2002 Carcinogenic.
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US - Massachusetts RTK - Substance: Listed substance

Distillates (petroleum), light catalytic cracked (CAS 64741-59-9)	Listed.
Hydrogen sulfide (CAS 7783-06-4)	Listed.
Naphthalene (CAS 91-20-3)	Listed.

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

Hydrogen sulfide (CAS 7783-06-4)	500 LBS
Naphthalene (CAS 91-20-3)	500 LBS
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	500 LBS

US - New Jersey RTK - Substances: Listed substance

Hydrogen sulfide (CAS 7783-06-4)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Hydrogen sulfide (CAS 7783-06-4)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Polycyclic Aromatic Hydrocarbons (CAS 130498-29-2)	Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

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: 1
 Flammability: 2
 Instability: 0

Disclaimer This Material Safety Data Sheet (MSDS) was prepared in accordance with 29 CFR 1910.1200 by Valero Marketing & Supply Co., ("VALERO"). VALERO does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this MSDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.

