



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Medium and Heavy Pale Oil
Version # 02
Issue date 16-January-2014
Revision date 21-June-2014
Supersedes date 16-January-2014
CAS # Mixture
MSDS Number 505
Synonym(s) Medium Pale Oil, Heavy Pale Oil
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 Oily, viscous liquid.
Emergency overview Low hazard under normal conditions.
OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.
Potential health effects
Routes of exposure None anticipated, when used as directed.
Eyes Under normal conditions of intended use, this material does not pose a eye hazard.
Skin Under normal conditions of intended use, this material does not pose a skin hazard.
Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Ingestion No harmful effects expected in amounts likely to be ingested by accident.
Potential environmental effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	100

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 if symptoms occur.
Skin contact Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.
Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Ingestion First aid is normally not required. However, if greater than 1/2 liter (pint) ingested, seek medical attention.
Notes to physician Treat symptomatically. Symptoms may be delayed.
General advice Get medical attention if symptoms occur. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Flammable properties No unusual fire or explosion hazards noted.

Extinguishing media**Suitable extinguishing media**

Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Fire fighting equipment/instructions

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Hazardous combustion products

Carbon oxides. Nitrogen oxides. Phosphorus oxides.

6. Accidental Release Measures**Personal precautions**

Wear appropriate personal protective equipment (See Section 8).

Methods for cleaning up

Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste.

Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and Storage**Handling**

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Observe good industrial hygiene practices.

Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

8. Exposure Controls / Personal Protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.

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

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m ³	Mist.
		2000 mg/m ³ 500 ppm	

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

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.

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

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Mexico. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Engineering controls	Ensure adequate ventilation, especially in confined areas.		
Personal protective equipment			
Eye / face protection	Wear safety glasses with side shields (or goggles).		
Skin protection	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.		
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Use NIOSH approved respirator with organic vapor/acid gas protection.		
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.		

9. Physical & Chemical Properties

Appearance	Oily, viscous liquid.
Physical state	Liquid.
Form	Liquid.
Color	Pale straw to amber.
Odor	Petroleum-like.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	0.16 kPa
Vapor density	Not available.
Boiling point	> 482 °F (> 250 °C)
Melting point/Freezing point	-49 - -16 °F (-45 - -26.67 °C)
Solubility (water)	Insoluble
Specific gravity	0.88 - 0.91
Flash point	> 420.0 °F (> 215.6 °C) Pensky-Martens Closed Cup
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	> 518 °F (> 270 °C)
Partition coefficient (n-octanol/water)	> 6
Other data	
Decomposition temperature	> 536 °F (> 280 °C)
Density	940 kg/m3 @ 59°F (15°C)
Kinematic viscosity	250 - 4200 cSt
Kinematic viscosity temp	> 104 °F (> 40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Excessive heat.
Incompatible materials	Strong oxidizing agents.

Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization	Not a skin sensitizer.
Acute effects	Not expected to be acutely toxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	A4 Not classifiable as a human carcinogen.
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IARC Monographs. Overall Evaluation of Carcinogenicity

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	3 Not classifiable as to carcinogenicity to humans.
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12. Ecological Information

Ecotoxicity	This material has not been tested for environmental effects.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	Has the potential to bioaccumulate.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

Medium and Heavy Pale Oil (CAS Mixture)	> 6
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Mobility in environmental media	No data available.
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13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

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

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

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

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Medium and Heavy Pale Oil

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Prepared by 3E Company

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)** 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** Non-controlled**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 this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations**US - California Hazardous Substances (Director's): Listed substance**Distillates (petroleum), hydrotreated heavy naphthenic Listed.
(CAS 64742-52-5)**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

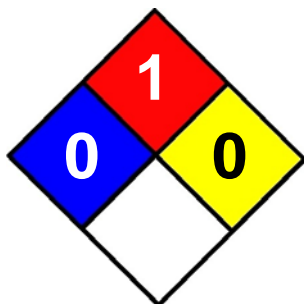
Not listed.

US. Massachusetts RTK - Substance ListDistillates (petroleum), hydrotreated heavy naphthenic Listed.
(CAS 64742-52-5)**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).**16. Other Information****NFPA Ratings**

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.