



SAFETY DATA SHEET

SDS ID NO.: 0385MAR019

Revision date 04/26/2023

1. IDENTIFICATION

Product Name	Marathon VHVI Multigrade Hydraulic Oils
Synonym	Very High Viscosity Index (VHVI) Multigrade Hydraulic Oils; ISO 32 VHVI Hydraulic Oil; ISO 46 VHVI Hydraulic Oil; ISO 68 VHVI Hydraulic Oil
Product code	0385MAR019
Chemical family	Hydrocarbon Mixture
Recommended use	Hydraulic Fluid.
Restrictions on use	All others.
Manufacturer, Importer, or Responsible Party Name and Address	MARATHON PETROLEUM COMPANY LP 539 South Main Street Findlay, OH 45840
SDS information	1-419-421-3070 (M-F; 8-5 EST)
24 Hour Emergency Telephone	CHEMTREC: 1-800-424-9300 (CCN# 13740)

2. HAZARD IDENTIFICATION

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification

Not classified

Hazards Not Otherwise Classified (HNOC)

Not applicable

2.2. Label Elements

No known significant effects or critical hazards.

Appearance Pale yellow liquid	Physical State Liquid	Odor Petroleum
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Precautionary Statements - Prevention

Not applicable

Precautionary Statements - Response

Not applicable

Precautionary Statements - Storage

Not applicable

Precautionary Statements - Disposal

Dispose of contents/container at an approved waste disposal plant

Additional Information

This SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition Information

Chemical Name	CAS Number	% Concentration
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	60-80
2,6-di-tert-butylphenol	128-39-2	0.1-1

Hydraulic fluid is a complex mixture of highly refined lubricating oil base stocks and additives. All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms occur get medical attention.
Skin contact	Wash skin with plenty of soap and water. If irritation or other symptoms occur get medical attention. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).
Eye contact	Immediately flush eyes with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. If irritation or other symptoms occur get medical attention.
Ingestion	Rinse mouth out with water. Do not induce vomiting unless directed by medical personnel. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. If symptoms develop, seek medical attention.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse effects	Prolonged or repeated inhalation of oil mist at high concentrations may cause respiratory irritation and/or other pulmonary effects. Prolonged and repeated skin contact may cause defatting and drying of the skin and may lead to irritation and/or dermatitis.
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Indication of any immediate medical attention and special treatment needed

Notes to physician	SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	For small fires, Class B fire extinguishing media such as CO ₂ , dry chemical, foam or water
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	spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	The product is not combustible per the OSHA Hazard Communication Standard, but will ignite and burn at temperatures exceeding the flash point.
Hazardous combustion products	Smoke, carbon monoxide, and other products of incomplete combustion.
Explosion data	
Sensitivity to mechanical impact:	No.
Sensitivity to static discharge:	No.
Special protective equipment and precautions for firefighters	Avoid using straight water streams. Water spray and foam must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Use water spray to cool exposed surfaces from as far a distance as possible. Keep run-off water out of sewers and water sources.
Additional firefighting tactics	Not applicable
NFPA	Health 0 Flammability 1 Instability 0 Special Hazard -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Keep people away from and upwind of spill/leak. Contaminated surfaces may be slippery.
Protective equipment	Use personal protection measures as recommended in Section 8.
Emergency procedures	Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
Environmental precautions	Avoid release to the environment. Avoid subsoil penetration.
Methods and materials for containment	Stop leak if you can do it without risk. Prevent spilled material from entering storm drains, sewers, and open waterways. Move containers from spill area. Contain liquid with sand or soil.
Methods and materials for cleaning up	Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. Dispose of in accordance with local/regional/national regulations.

7. HANDLING AND STORAGE

Safe handling precautions	<p>Avoid contact with skin, eyes and clothing. Do not swallow. Avoid breathing vapors or mists. Use good personal hygiene practices. Wash thoroughly after handling. Use personal protection measures as recommended in Section 8. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.</p> <p>High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4). Do not cut, drill, grind, puncture, weld or</p>
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incinerate container. Empty container may contain hazardous residue.

Storage conditions

Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials.

Incompatible materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PELS	NIOSH IDLH
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7	Mineral oil, highly/severely refined, inhalable fraction 5 mg/m ³ TWA	TWA: 5 mg/m ³	2500 mg/m ³

Notes: No further information available.

Engineering measures

Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

Personal protective equipment**Eye protection**

Use goggles or face-shield if the potential for splashing exists.

Skin and body protection

Wear neoprene, nitrile or PVA gloves to prevent skin contact. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times. Wear appropriate protective clothing.

Respiratory protection

Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Pale yellow liquid
Physical State	Liquid
Color	Pale yellow
Odor	Petroleum
Odor Threshold	No data available.

Property**Values (method)**

pH	No available data.
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	No data available.
Flash Point	> 180 °C / > 356 °F (Cleveland Open-Cup)
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	No data available.
Lower Flammability Limit:	No data available.
Explosion Limits	No data available.
Vapor Pressure	No data available.
Vapor Density	No data available.

Specific Gravity / Relative Density	0.84 - 0.87
Water Solubility	No data available.
Partition Coefficient	No data available.
Autoignition Temperature	No data available.
Decomposition Temperature	No data available.
Kinematic Viscosity	28.5-74.4 cSt @ 40°C (ASTM D445)
VOC Content (%)	No data available.

10. STABILITY AND REACTIVITY

Reactivity	The product is non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Will not occur.
Conditions to avoid	Sources of heat or ignition.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation	Inhalation of high vapor concentrations may cause irritation of the respiratory system.
Eye contact	Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.
Skin contact	Prolonged or repeated exposure may cause dermatitis, folliculitis or oil acne.
Ingestion	May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.5 mg/l (Rat) 4 h
2,6-di-tert-butylphenol 128-39-2	> 5000 mg/kg (Rat)	> 10 g/kg (Rabbit)	-

Immediate and delayed effects as well as chronic effects from short and long-term exposure

BASE OILS: Mineral oil mists from highly refined or hydrotreated oils are generally of low acute and subchronic toxicity. Overexposure to mists may cause inflammation of the lungs and lipid pneumonia.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and symptoms	Prolonged or repeated inhalation of oil mist at high concentrations may cause respiratory irritation and/or other pulmonary effects. Prolonged and repeated skin contact may cause defatting and drying of the skin and may lead to irritation and/or dermatitis.
Acute toxicity	None known.
Skin corrosion/irritation	None known.
Serious eye damage/eye irritation	None known.

Sensitization	None known.
Mutagenic effects	None known.
Carcinogenicity	Prolonged or repeated contact with used lube oils may cause skin cancer.

Chemical Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7	Mineral oil, highly/severely refined (inhalable fraction) Not Classifiable (A4)	Mineral oil, highly refined Not Classifiable (3)	Not Listed	Not Listed

Reproductive toxicity	None known.
Specific Target Organ Toxicity (STOT) - single exposure	None known.
Specific Target Organ Toxicity (STOT) - repeated exposure	None known.
Aspiration hazard	None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity Used motor and/or lube oils may be toxic to birds and fish.

Chemical Name	Fish	Crustacea	Algae/aquatic plants
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7	96-hr LC50 = 5000 mg/L Rainbow trout	48-hr EC50 = 1000 mg/L Daphnia magna	-
2,6-di-tert-butylphenol 128-39-2	-	48-hr EC50 = 0.45 mg/l Daphnia magna	-

Persistence and degradability	Not expected to be readily biodegradable.
Bioaccumulation	No information available.
Mobility in soil	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Description of waste residues	No information available.
Safe handling of wastes	Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required.
Disposal of wastes / methods of disposal	The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.
Contaminated packaging disposal	Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT
UN/Identification No: Not applicable

UN Proper Shipping Name: Not Regulated
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IATA

UN/Identification No: Not applicable
UN Proper Shipping Name: Not Regulated
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IMDG

UN/Identification No: Not applicable
UN Proper Shipping Name: Not Regulated
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

15. REGULATORY INFORMATION

Regulatory Information

US TSCA Chemical Inventory This product and/or its components are listed on the TSCA Chemical Inventory or are exempt.

Canada DSL/NDL Inventory This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

EPA Superfund Amendment & Reauthorization Act (SARA)

SARA Section 302 This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List above the de minimis threshold.

SARA Section 304 This product does not contain any component(s) identified as an EHS or a CERCLA Hazardous substance above the de minimis threshold.

SARA Section 311/312 Not applicable.

SARA Section 313 This product does not contain components, which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

U.S. State Regulations

California Proposition 65 This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Chemical Name	California Proposition 65
Ethylene Oxide 75-21-8	Carcinogen, initial date 07/01/1987 Developmental toxicity, initial date 08/07/2009 Reproductive toxicity, initial date (female) 02/27/1987 - (male) 08/07/2009
Propylene Oxide 75-56-9	Carcinogen, initial date 10/1/1988
1,4-dioxane 123-91-1	Carcinogen, initial date 01/01/1988
Ethyl Acrylate 140-88-5	Carcinogen, initial date 07/01/1989
Ethanediol 107-21-1	Developmental toxicity (ingested), initial date 06/19/2015

For more information, go to www.P65Warnings.ca.gov.

State Right-To-Know Regulations The following component(s) of this material are identified on the regulatory lists below:

Chemical Name	New Jersey Right-To-Know	Pennsylvania Right-To-Know	Massachusetts Right-To-Know
Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7	Listed	Listed	Listed

16. OTHER INFORMATION

Prepared by

Toxicology & Product Safety

NFPA



Revision Notes

Revision date

04/26/2023

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.