SAFETY DATA SHEET

SDS ID NO.: 0170MAR019
Revision Date: 05/22/2015

1. IDENTIFICATION

Product Name: Marathon Petroleum Multi-Purpose Hydraulic Oil

Synonym: Marathon Multipurpose Hydraulic Oil; ISO 32 Multi-Purpose Hydraulic Oil; ISO 46 Multi-Purpose Hydraulic Oil; ISO 68 Multi-Purpose Hydraulic Oil; ISO 100 Multi-Purpose Hydraulic Oil

Chemical Family: Hydrocarbon Mixture

Recommended Use: Hydraulic Fluid.
Use Restrictions: All others.

Supplier Name and Address:

MARATHON PETROLEUM COMPANY LP
539 South Main Street
Findlay, OH 45840

SDS information: 1-419-421-3070

Emergency Telephone: 1-877-627-5463

2. HAZARD IDENTIFICATION

Classification

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

Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

Hazards Not Otherwise Classified (HNOC)
Not applicable

Label elements

EMERGENCY OVERVIEW

Harmful to aquatic life with long lasting effects

Appearance Yellow Liquid **Physical State** Liquid **Odor** Petroleum

Precautionary Statements - Prevention
Avoid release to the environment

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
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

Lube oil is a complex mixture of highly refined lubricating base stocks and additives.

Composition Information:

Name	CAS Number	Weight %
2,6-di-tert-butylphenol	128-39-2	0.1-1

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. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). 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. Wash contaminated clothing and clean shoes before reuse. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Eye Contact: Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion: Rinse mouth out with water. 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. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. If symptoms develop, seek medical attention.

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

Adverse Effects: Preexisting skin conditions and/or respiratory disorders may be aggravated by exposure to this product.

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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) 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 (AFFF/ATC) 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.

NFPA:	Health 0	Flammability 1	Instability 0	Special Hazards -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep public away. Isolate and evacuate area. Shut off source if safe to do so.

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: Prevent further leakage or spillage if safe to do so.

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.

7. HANDLING AND STORAGE

Safe Handling Precautions: 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.

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).

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

Name	ACGIH TLV	OSHA PELS:	OSHA - Vacated PELs	NIOSH IDLH
2,6-di-tert-butylphenol 128-39-2	-	-	-	-

Notes: The manufacturer has voluntarily elected to provide exposure limits contained in OSHA's 1989 air contaminants standard in its SDSs, even though certain of those exposure limits were vacated in 1992.

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 an approved organic vapor chemical cartridge or supplied air respirators when material produces vapors that exceed permissible exposure limits or 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

Physical State	Liquid
Appearance	Yellow Liquid
Color	Yellow
Odor	Petroleum
Odor Threshold	No available data.

Property	Values (Method)
Melting Point / Freezing Point	No available data.

Initial Boiling Point / Boiling Range	No available data.
Flash Point	> 200 °C / > 392 °F (Cleveland Open-Cup)
Evaporation Rate	No available data.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%)	
Upper Flammability Limit:	No available data.
Lower Flammability Limit:	No available data.
Vapor Pressure	No available data.
Vapor Density	No available data.
Specific Gravity / Relative Density	0.85-0.896
Water Solubility	No available data.
Solubility in other solvents	No available data.
Partition Coefficient	No available data.
Decomposition temperature:	No available data.
pH:	No available data.
Autoignition Temperature	No available data.
Kinematic Viscosity	≥ 28.8 mm2/s @ 40°C / 104°F (ASTM D445)
Dynamic Viscosity	No available data.
Explosive Properties	No available data.
Softening Point	No available data.
VOC Content (%)	0.12 (w/w)
Density	No available data.
Bulk Density	Not applicable.

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 Overheating may produce vapors which may cause respiratory irritation, dizziness and nausea.

Eye contact Exposure to vapor or contact with liquid may cause mild eye irritation.

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

Name	Oral LD50	Dermal LD50	Inhalation LC50
2,6-di-tert-butylphenol 128-39-2	> 5000 mg/kg (Rat)	> 10 g/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

This product is considered to have a low order of acute and chronic oral and dermal toxicity.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs & Symptoms Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

Sensitization Not expected to be a skin or respiratory sensitizer.

Mutagenic effects None known.

Carcinogenicity Cancer designations are listed in the table below.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
2,6-di-tert-butylphenol 128-39-2	Not Listed	Not Listed	Not Listed	Not Listed

Reproductive toxicity None known.

Specific Target Organ Toxicity (STOT) - single exposure Not classified.

Specific Target Organ Toxicity (STOT) - repeated exposure Not classified.

Aspiration hazard Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
2,6-di-tert-butylphenol 128-39-2	-	-	-	48-hr EC50 = 0.45 mg/l Daphnia magna

Persistence and degradability No information available.

Bioaccummulation Contains component(s) with the potential to bioaccumulate.

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.

Methods of 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 (49 CFR 172.101):

UN Proper shipping name:	Not Regulated
UN/Identification No:	Not applicable
Transport Hazard Class(es):	Not applicable
Packing group:	Not applicable

TDG (Canada):

UN Proper shipping name:	Not Regulated
UN/Identification No:	Not applicable
Transport Hazard Class(es):	Not applicable
Packing group:	Not applicable

15. REGULATORY INFORMATION

US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b): This product and/or its components are listed on the TSCA Chemical Inventory.

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.

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
2,6-di-tert-butylphenol	NA

SARA Section 304: This product does not contain any component(s) identified as an EHS or a CERCLA Hazardous substance, which in case of a spill or release may be subject to SARA reporting requirements.

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
2,6-di-tert-butylphenol	NA

SARA: The following EPA hazard categories apply to this product:

None

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):

Name	CERCLA/SARA 313 Emission reporting:
2,6-di-tert-butylphenol	None

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

2,6-di-tert-butylphenol

Louisiana Right-To-Know:	Not Listed.
California Proposition 65:	Not Listed.
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida Substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed.
Michigan Critical Materials Register List:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed.

California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed.
New Jersey - Special Hazardous Substances:	Not Listed.
New Jersey - Environmental Hazardous Substances List:	Not Listed.
Illinois - Toxic Air Contaminants	Not Listed.
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed.

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

Canadian Regulatory Information: "This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations."

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
2,6-di-tert-butylphenol	D2B	1%

NOTE: Uncontrolled product according to WHMIS classification criteria.

16. OTHER INFORMATION

Prepared By Toxicology and Product Safety
Revision Date: 05/22/2015

Revision Note:

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.