SAFETY DATA SHEET

SDS ID NO.: 0173MAR019
Revision Date 05/22/2015

1. IDENTIFICATION

Product Name: Marathon Petroleum Multi-Purpose Gear Compound
Synonym: Marathon Multi-Purpose Gear Compound; Multipurpose Gear Compound; 571 Multi-Purpose Gear Compound; 573 Multi-Purpose Gear Compound; 80W-90 Multi-Purpose Gear Compound; 85W-140 Multi-Purpose Gear Compound
Product Code: 0173MAR019
Chemical Family: Motor/Lube Oil
Recommended Use: Gear Oil.
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
Emergency Telephone: 1-877-627-5463

2. HAZARD IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>Category 3</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Hazards Not Otherwise Classified (HNOC)
Not applicable.

Label elements

Warning

May cause an allergic skin reaction
Harmful to aquatic life with long lasting effects

EMERGENCY OVERVIEW

Warning

May cause an allergic skin reaction
Harmful to aquatic life with long lasting effects
Appearance | Yellow Liquid | Physical State | Liquid | Odor | Petroleum
---|---|---|---|---|---

Precautionary Statements - Prevention
Avoid breathing mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Avoid release to the environment

Precautionary Statements - Response
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical attention
Wash contaminated clothing before reuse

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:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS Number</th>
<th>% Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>NOT AVAILABLE</td>
<td>0.1-1</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>NOT AVAILABLE</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

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. 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. Remove contaminated clothing. Get medical attention if irritation or rash occurs. Wash contaminated clothing and clean shoes before reuse.

**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: May cause skin irritation and/or rash. Symptoms may include redness, itching, and inflammation. Contact with eyes may cause irritation. May cause redness and pain. 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: Treat symptomatically.

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.

Additional firefighting tactics
Not applicable.

NFPA
Health 2 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.

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.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>ACGIH TLV</th>
<th>OSHA PELs</th>
<th>OSHA - Vacated PELs</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NOT AVAILABLE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NOT AVAILABLE</td>
<td>-</td>
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</tr>
</tbody>
</table>

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 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

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

Property | Values (Method) |
---|---|
Melting Point / Freezing Point | No data available. |
Initial Boiling Point / Boiling Range | No data available. |
Flash Point | > 185 °C / > 365 °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 | 0.855-0.905 |
Water Solubility | No data available. |
Solubility in other solvents | No data available. |
Partition Coefficient | No data available. |
Decomposition temperature | No data available. |
pH: | No available data. |
Autoignition Temperature | No data available. |
Kinematic Viscosity | > 130 mm²/s @ 40°C / 104°F (ASTM D445) |
Dynamic Viscosity | No data available. |
Explosive Properties | No data available. |
VOC Content (%) | 46.8 (w/w) |
Density | No data available. |
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, including tearing, stinging, and redness.

Skin contact: May cause skin irritation. May cause an allergic skin reaction. 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>NOT AVAILABLE</td>
<td>-</td>
<td>-</td>
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<td>Long-chain alkenyl amine</td>
<td>NOT AVAILABLE</td>
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<td>-</td>
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</table>

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 and Symptoms

May cause irritation. Symptoms may include redness, itching, and inflammation. Rash. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

Sensitization

May cause sensitization by skin contact. Not expected to be a respiratory sensitizer.

Mutagenic effects

None known.

Carcinogenicity

Cancer designations are listed in the table below.

<table>
<thead>
<tr>
<th>Name</th>
<th>ACGIH (Class)</th>
<th>IARC (Class)</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>Not Listed</td>
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<td>Not Listed</td>
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</tr>
</tbody>
</table>

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.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NOT AVAILABLE</td>
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<td>Long-chain alkenyl amine</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NOT AVAILABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability

No information available.

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.

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
- Class: 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 may contain component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

<table>
<thead>
<tr>
<th>Name</th>
<th>CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>NA</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>NA</td>
</tr>
</tbody>
</table>

SARA Section 304: This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

<table>
<thead>
<tr>
<th>Name</th>
<th>Hazardous Substances RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>NA</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>NA</td>
</tr>
</tbody>
</table>

SARA Section 311/312: The following EPA hazard categories apply to this product:

Acute Health Hazard

SARA Section 313: This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Substance Reporting.
Release Reporting (Form R).

<table>
<thead>
<tr>
<th>Name</th>
<th>CERCLA/SARA 313 Emission reporting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>None</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>None</td>
</tr>
</tbody>
</table>

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

**Long-chain alkyl amine**
- 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

**Long-chain alkenyl amine**
- 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 SDS contains all of the information required by those regulations.

<table>
<thead>
<tr>
<th>Name</th>
<th>Canada - WHMIS: Classifications of Substances</th>
<th>Canada - WHMIS: Ingredient Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-chain alkyl amine</td>
<td>D2B</td>
<td>1%</td>
</tr>
<tr>
<td>Long-chain alkenyl amine</td>
<td>D2B</td>
<td>1%</td>
</tr>
</tbody>
</table>
Note: Not applicable.

16. OTHER INFORMATION

Prepared By: Toxicology and Product Safety

Revision Notes

Revision Date: 05/22/2015

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.