1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland  Regulatory Information Number  1-800-325-3751
P.O. Box 2219  Telephone  614-790-3333
Columbus, OH 43216  Emergency telephone number  1-800-ASHLAND (1-800-274-5263)

Product name  Valvoline™ POWER STEERING FLUID
Product code  799222

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, amber

CAUTION! PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes
Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact
May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin contact
May cause slight skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

Ingestion
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation
It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

**Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

**Target Organs**

No data

**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

There are no data available for assessing risk to the fetus from maternal exposure to this material.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No. / Trade Secret No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEAVY PARAFFINIC DISTILLATE</td>
<td>64742-54-7</td>
<td>&gt;=90-&lt;=100%</td>
</tr>
<tr>
<td>LUBRICATING OILS, PETROLEUM, HYDROTREATED SPENT</td>
<td>64742-58-1</td>
<td>&gt;=5-&lt;10%</td>
</tr>
<tr>
<td>MIXTURE OF SEVERELY HYDROTREATED AND HYDROCRACKED BASE OIL (PETROLEUM)</td>
<td></td>
<td>&gt;=1-&lt;1.5%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES
Eyes
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician
Hazards: Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.
Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Dry chemical, Carbon dioxide (CO2), Water spray

Hazardous combustion products
carbon dioxide and carbon monoxide, Hydrocarbons
Precautions for fire-fighting
Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification
Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions
Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up
Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information
Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage
Keep containers closed when not in use. Store in a cool, dry, ventilated area.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Contains no substances with occupational exposure limit values.

General advice
These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection
Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection
Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier).

Respiratory protection
Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>amber</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>424.99 °F / 218.33 °C @ 1,013.33 hPa Calculated Phase Transition Liquid/Gas</td>
</tr>
<tr>
<td>Flash point</td>
<td>347.00 °F / 175.00 °C Open Cup</td>
</tr>
</tbody>
</table>
Valvoline™ POWER STEERING FLUID
799222

| Evaporation rate | (>1 Ethyl Ether |
| Vapour pressure  | 0.000 hPa Calculated Vapor Pressure |
| Density          | 0.87 g/cm³ |
|                   | 7.2200 lb/gal @ 60.00 °F / 15.56 °C |

10. STABILITY AND REACTIVITY

Stability
Stable.

Conditions to avoid
None known.

Incompatible products
Strong oxidizing agents

Hazardous decomposition products
carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions
Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
Acute oral toxicity - Product: no data available

Acute oral toxicity - Components
HEAVY PARAFFINIC DISTILLATE: LD 50: > 15 g/kg Species: Rat
MIXTURE OF SEVERELY HYDROTREATED AND HYDROCRACKED BASE OIL: LD50: > 5,000 mg/kg Species: rat
Acute inhalation toxicity

| Product | Acute inhalation toxicity - | no data available |

Acute dermal toxicity

| Product | Acute dermal toxicity - | no data available |

Acute dermal toxicity - Components

| HEAVY PARAFFINIC DISTILLATE | LD 50: > 5 g/kg Species: Rabbit |
| MIXTURE OF SEVERELY HYDROTREATED AND HYDROCRACKED BASE OIL (PETROLEUM) | LD50: > 2,000 mg/kg Species: rabbit |

Acute toxicity (other routes of administration)

| Acute toxicity (other routes of administration) | no data available |

12. ECOLOGICAL INFORMATION

Biodegradability

| Biodegradability - Product | no data available |

Bioaccumulation

| Bioaccumulation - Product | no data available |

Ecotoxicity effects

Toxicity to fish

| Toxicity to fish - Product | no data available |
Toxicity to daphnia and other aquatic invertebrates

<table>
<thead>
<tr>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
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</thead>
<tbody>
<tr>
<td>- Product</td>
<td></td>
</tr>
</tbody>
</table>

Toxicity to algae

| Toxicity to algae - Product | : no data available |

Toxicity to bacteria

| Toxicity to bacteria - Product | : no data available |

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>REGULATION</th>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
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</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>Not dangerous goods</td>
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<td></td>
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<tr>
<td>U.S. DOT - RAIL</td>
<td>Not dangerous goods</td>
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<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
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</tbody>
</table>
Not dangerous goods

TRANSPORT CANADA - ROAD
Not dangerous goods

TRANSPORT CANADA - RAIL
Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS
Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER
Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES
Not dangerous goods
*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65
Proposition 65 warnings are not required for this product based on the results of a risk assessment.
SAFETY DATA SHEET

Valvoline™ POWER STEERING FLUID
799222

SARA Hazard Classification
SARA 311/312 Classification
No SARA Hazards

SARA 313 Component(s)
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

New Jersey RTK Label Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
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<tbody>
<tr>
<td>HEAVY PARAFFINIC DISTILLATE</td>
<td>64742-54-7</td>
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<tr>
<td>LUBRICATING OILS, PETROLEUM, HYDROTREATED SPENT</td>
<td>64742-58-1</td>
</tr>
<tr>
<td>MIXTURE OF SEVERELY HYDROTREATED AND HYDROCRACKED BASE OIL (PETROLEUM)</td>
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</table>

Pennsylvania RTK Label Information

<table>
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<th>Component</th>
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<tbody>
<tr>
<td>HEAVY PARAFFINIC DISTILLATE</td>
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<tr>
<td>LUBRICATING OILS, PETROLEUM, HYDROTREATED SPENT</td>
<td>64742-58-1</td>
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Notification status

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<th>Status</th>
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<tr>
<td>US, Toxic Substances Control Act</td>
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<tr>
<td>Canada, Canadian Environmental Protection Act (CEPA), Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Australia, Industrial Chemical (Notification and Assessment) Act</td>
<td>y (positive listing)</td>
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<tr>
<td>New Zealand, Inventory of Chemicals (NZIoC), as published by ERMA New Zealand</td>
<td>n (Negative listing)</td>
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<tr>
<td>Japan, Kashin-Hou Law List</td>
<td>y (positive listing)</td>
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<tr>
<td>Korea, Toxic Chemical Control Law (TCCL) List</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Philippines, The Toxic Substances and Hazardous and Nuclear Waste Control Act</td>
<td>y (positive listing)</td>
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<tr>
<td>China, Inventory of Existing Chemical Substances</td>
<td>y (positive listing)</td>
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<table>
<thead>
<tr>
<th>HMIS</th>
<th>NFPA</th>
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<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
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<tr>
<td>Physical hazards</td>
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</table>
16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).