
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name: Valvoline™ FULL SYNTHETIC MODERN ENGINE SAE 5W-20 Motor Oil
™ Trademark, Valvoline or its subsidiaries, registered in various countries

Recommended use: Motor Oil

Relevant identified uses of the substance or mixture and uses advised against

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements
This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Chemical nature: Defatter

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration (%)</th>
</tr>
</thead>
</table>

| Hazardous components |  |  |  |
**SECTIO4. FIRST AID MEASURES**

**General advice**: No hazards which require special first aid measures.

**If inhaled**: If breathed in, move person into fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

**In case of skin contact**: First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

**In case of eye contact**: Remove contact lenses. Protect unharmed eye.

**If swallowed**: Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Most important symptoms and effects, both acute and delayed**: 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.
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
- acne
- stomach or intestinal upset (nausea, vomiting, diarrhea)
- irritation (nose, throat, airways)

Notes to physician: No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Water spray
- Foam
- Carbon dioxide (CO2)
- Dry chemical

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: carbon dioxide and carbon monoxide
- Hydrocarbons
- Aldehydes
- Sulphur oxides

Specific extinguishing methods:
- Product is compatible with standard fire-fighting agents.

Further information: Standard procedure for chemical fires.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

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

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

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

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.

Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM)</td>
<td>64742-70-7</td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>10 mg/m3 Mist</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>5 mg/m3 particulate</td>
<td>CAL PEL</td>
</tr>
<tr>
<td>DISTILLATES (PETROLEUM), SOLVENT-REFINED LIGHT PA</td>
<td>64741-89-5</td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m3 Inhalable fraction</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m3 Mist</td>
<td>NIOSH REL</td>
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<td>10 mg/m3 Mist</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>5 mg/m3 particulate</td>
<td>CAL PEL</td>
</tr>
<tr>
<td>Distillates (Petroleum),</td>
<td>64742-54-7</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
</tbody>
</table>
**Hazardous components without workplace control parameters**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC</td>
<td>64742-65-0</td>
</tr>
</tbody>
</table>

**Engineering measures**: General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, 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.

**Personal protective equipment**

- **Respiratory protection**: No personal respiratory protective equipment normally required.
- **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 as appropriate:
  - Safety shoes
  - Wear resistant gloves (consult your safety equipment supplier).
- **Hygiene measures**: General industrial hygiene practice.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- **Physical state**: liquid
- **Odour**: No data available
Odour Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Boiling point/boiling range : No data available
Flash point : > 390 °F / > 199 °C
   Method: Cleveland open cup
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : No data available
Density : 0.849 g/cm³
Solubility(ies)
   Water solubility : No data available
   Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Thermal decomposition : No data available
Viscosity
   Viscosity, dynamic : No data available
   Viscosity, kinematic : 49.0 mm²/s (40 °C)
Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity : No decomposition if stored and applied as directed.
Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Product will not undergo hazardous polymerization.

Conditions to avoid: Excessive heat

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Aldehydes, carbon dioxide and carbon monoxide, hydrocarbons, sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
- Inhalation
- Skin contact
- Eye Contact
- Ingestion

Acute toxicity:
Not classified based on available information.

Components:
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:
Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):
Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Assessment: Not classified as acutely toxic by ingestion under GHS.
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.
Remarks: Information given is based on data obtained from similar substances.

DISTILLATES (PETROLEUM), SOLVENT-REFINED LIGHT PA:
### Acute oral toxicity
- **LD50 (Rat):** > 15 g/kg

### Acute dermal toxicity
- **LD50 (Rabbit):** > 5 g/kg

### Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
- **Acute oral toxicity:** LD50 (Rat): > 15 g/kg
- **Acute dermal toxicity:** LD50 (Rabbit): > 5 g/kg

### Skin corrosion/irritation
Not classified based on available information.

#### Components:
- **DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:**
  - Result: Slight, transient irritation
- **CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):**
  - Result: Slight, transient irritation
- **DISTILLATES (PETROLEUM), SOLVENT-REFINED LIGHT PA:**
  - Result: Slight, transient irritation
- **Distillates (Petroleum), Hydrotreated Heavy Paraffinic:**
  - Result: Slight, transient irritation

### Serious eye damage/eye irritation
Not classified based on available information.  

#### Product:
- **Remarks:** Unlikely to cause eye irritation or injury.

#### Components:
- **DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:**
  - Result: Slight, transient irritation
- **CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):**
  - Result: Slight, transient irritation
- **DISTILLATES (PETROLEUM), SOLVENT-REFINED LIGHT PA:**
  - Result: Slight, transient irritation
- **Distillates (Petroleum), Hydrotreated Heavy Paraffinic:**
  - Result: No eye irritation

### Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.  
Respiratory sensitisation: Not classified based on available information.  
Germ cell mutagenicity
- **Not classified based on available information.**

### Carcinogenicity
Not classified based on available information.

**Reproductive toxicity**
Not classified based on available information.

**STOT - single exposure**
Not classified based on available information.

**STOT - repeated exposure**
Not classified based on available information.

**Aspiration toxicity**
Not classified based on available information.

**Components:**
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC:
May be fatal if swallowed and enters airways.

CATALYTIC DE WAXED HEAVY PARAFFINIC OIL (PETROLEUM):
May be fatal if swallowed and enters airways.

DISTILLATES (PETROLEUM), SOLVENT-REFINED LIGHT PA:
May be fatal if swallowed and enters airways.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
May be fatal if swallowed and enters airways.

**Further information**

**Product:**
Remarks: No data available

**Carcinogenicity:**

**IARC**
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

Ecotoxicology Assessment
Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.
Components:
Distillates (Petroleum), Hydrotreated Heavy Paraffinic:
Toxicity to fish : LL50 (Fish): > 100 mg/l
    Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): > 10,000 mg/l
    Exposure time: 48 h
Toxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l
    Exposure time: 72 h
Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l

Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Other adverse effects
No data available
Product:
Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
General advice : Dispose of in accordance with all applicable local, state and federal regulations.
Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations
REGULATION
**SAFETY DATA SHEET**

Valvoline™ FULL SYNTHETIC MODERN ENGINE SAE 5W-20 Motor Oil

™ Trademark, Valvoline or its subsidiaries, registered in various countries

882227

**Revision Date:** 09/22/2017  
**Print Date:** 1/17/2018  
**SDS Number:** 000000273485  
**Version:** 1.0

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<table>
<thead>
<tr>
<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>
</tr>
</thead>
</table>

**U.S. DOT - ROAD**

Not dangerous goods

**CFR_RAIL_C**

Not dangerous goods

**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods

**TDG_ROAD_C**

Not dangerous goods

**TDG_RAIL_C**

Not dangerous goods

**TDG_INWT_C**

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

**MX_DG**

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID*
Marine pollutant | no

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.

SECTION 15. REGULATORY INFORMATION

**EPCRA - Emergency Planning and Community Right-to-Know Act**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENEDIAMINE</td>
<td>107-15-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

**CERCLA Reportable Quantity**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
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<td>ETHYLENEDIAMINE</td>
<td>107-15-3</td>
<td>5000</td>
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</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

**SARA 311/312 Hazards**: No SARA Hazards

**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.

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

**The components of this product are reported in the following inventories:**

- **DSL**: All components of this product are on the Canadian DSL
- **AICS**: On the inventory, or in compliance with the inventory
- **ENCS**: Not in compliance with the inventory
- **KECI**: On the inventory, or in compliance with the inventory
- **PICCS**: Not in compliance with the inventory
- **IECSC**: On the inventory, or in compliance with the inventory
- **TSCA**: On TSCA Inventory

**Inventories**
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 09/22/2017

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>HEALTH</td>
</tr>
<tr>
<td>Health</td>
<td>0</td>
</tr>
<tr>
<td>Flammability</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>Instability</td>
<td>1</td>
</tr>
<tr>
<td>Special hazard.</td>
<td>PHYSICAL HAZARD</td>
</tr>
</tbody>
</table>

NFPA Flammable and Combustible Liquids Classification
Combustible Liquid Class IIIB

Full text of H-Statements
H304 May be fatal if swallowed and enters airways.

Sources of key data used to compile the Safety Data Sheet
Valvoline internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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 SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).
List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:

ACGIH: American Conference of Industrial Hygienists
BEI: Biological Exposure Index
CAS: Chemical Abstracts Service (Division of the American Chemical Society).
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
FG: Food grade
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement: Hazard Statement
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the “International Air Transport Association” (IATA).

ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): Technical Instructions by the “International Civil Aviation Organization”
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
logPow: octanol-water partition coefficient
LCxx: Lethal Concentration, for xx percent of test population
LDxx: Lethal Dose, for xx percent of test population.
ICxx: Inhibitory Concentration for xx of a substance
Ecxx: Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD: Organization for Economic Co-operation and Development
OEL: Occupational Exposure Limit
P-Statement: Precautionary Statement
PBT: Persistent, Bioaccumulative and Toxic
PPE: Personal Protective Equipment
STEL: Short-term exposure limit
STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
vPvB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
DOT: Department of Transportation
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PMRA: Health Canada Pest Management Regulatory Agency
RTK: Right to Know
WHMIS: Workplace Hazardous Materials Information System