

VALVOLINE® AW 46 HYDRAULIC OIL
VV043

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 | 1-800-ASHLAND (1-800-274-5263) |
| Product name | VALVOLINE® AW 46 HYDRAULIC OIL | |
| Product code | VV043 | |
| Product Use Description | no data available | |

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid

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

Potential Health Effects

Exposure routes

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

Eye contact

Unlikely to cause eye irritation or injury.

Skin contact

Unlikely to cause skin irritation or injury. Prolonged or repeated contact may dry and crack the skin.

Ingestion

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

Inhalation

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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.

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

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Components | CAS-No. | Concentration |
|-----------------------------|----------------|----------------------|
| HEAVY PARAFFINIC DISTILLATE | 64742-54-7 | <=100% |

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.

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Skin

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

Ingestion

Do not induce vomiting. Give one glass of milk or water, and get medical attention immediately. If possible, do not leave victim unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

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. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Foam, Carbon dioxide (CO₂)

Hazardous combustion products

May form: carbon dioxide and carbon monoxide, Hydrocarbons, nitrogen oxides (NO_x), Oxides of phosphorus, Sulphur oxides

Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). 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 liquid with water used for cooling purposes.

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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 proper personal protective equipment should be excluded from area of spill.

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

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

Store in closed containers in a dry, well-ventilated area. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

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.

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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.

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

Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation which may result from prolonged or repeated skin contact with product. 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.

Respiratory protection

Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Physical state | liquid |
| Form | no data available |
| Colour | no data available |
| Odour | no data available |
| Boiling point/boiling range | (>)425 °F / 218 °C @ 760.00 mmHg |
| Melting point/range | no data available |
| Sublimation point | no data available |
| pH | no data available |
| Flash point | (>)199.00 °C Cleveland open cup |
| Ignition temperature | no data available |
| Evaporation rate | 1 Ethyl Ether |
| Lower explosion limit/Upper explosion limit | 1 %(V) / 6 %(V) |
| Particle size | no data available |
| Vapour pressure | 0.013 hPa @ 70.00 °F / 21.11 °C Calculated Vapor Pressure |
| Vapour density | no data available |

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| | |
|---|--|
| Density | 0.8686 g/cm ³ @ 60.01 °F / 15.56 °C |
| Bulk density | 7.25 lb/gal @ 60.00 °F / 15.56 °C |
| Water solubility | no data available |
| Solubility | no data available |
| Partition coefficient: n-octanol/water | no data available |
| log Pow | no data available |
| Autoignition temperature | no data available |
| Viscosity, kinematic | 46 mm ² /s |
| Solids in Solution | no data available |
| Decomposition temperature | no data available |
| Burning number | no data available |
| Dust explosion constant | no data available |
| Minimum ignition energy | no data available |

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

None known.

Incompatible products

Avoid contact with:, Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons, nitrogen oxides (NO_x), Oxides of phosphorus

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

HEAVY PARAFFINIC DISTILLATE

: LD 50 Rat: > 15 g/kg

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Acute inhalation toxicity

HEAVY PARAFFINIC DISTILLATE : no data available

Acute dermal toxicity

HEAVY PARAFFINIC DISTILLATE : LD 50 Rabbit: > 5 g/kg

12. ECOLOGICAL INFORMATION

Biodegradability

HEAVY PARAFFINIC DISTILLATE : no data available

Bioaccumulation

HEAVY PARAFFINIC DISTILLATE : no data available

Ecotoxicity effects

Toxicity to fish

HEAVY PARAFFINIC DISTILLATE : no data available

Toxicity to daphnia and other aquatic invertebrates.

HEAVY PARAFFINIC DISTILLATE : no data available

Toxicity to algae

HEAVY PARAFFINIC DISTILLATE : no data available

Toxicity to bacteria

HEAVY PARAFFINIC DISTILLATE : no data available

Biochemical Oxygen Demand (BOD)

HEAVY PARAFFINIC DISTILLATE : no data available

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Chemical Oxygen Demand (COD)
HEAVY PARAFFINIC DISTILLATE : no data available

Additional ecological information
HEAVY PARAFFINIC DISTILLATE : no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

REGULATION

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT / LTD. QTY. |
|-----------|----------------------|---------------|--------------------|---------------|------------------------------|
|-----------|----------------------|---------------|--------------------|---------------|------------------------------|

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

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TRANSPORT CANADA - ROAD

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - ROAD

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.

SARA Hazard Classification

No SARA Hazards

New Jersey RTK Label Information

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Pennsylvania RTK Label Information

HEAVY PARAFFINIC DISTILLATE

64742-54-7

Notification status

EU. EINECS

y (positive listing)

US. Toxic Substances Control Act

y (positive listing)

Australia. Industrial Chemical (Notification and Assessment)
Act

y (positive listing)

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| | |
|--|----------------------|
| Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133) | y (positive listing) |
| Japan. Kashin-Hou Law List | y (positive listing) |
| Korea. Toxic Chemical Control Law (TCCL) List | y (positive listing) |
| Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act | y (positive listing) |
| China. Inventory of Existing Chemical Substances | y (positive listing) |

| | HMIS | NFPA |
|------------------|------|------|
| Health | 1 | 1 |
| Flammability | 1 | 1 |
| Physical hazards | -- | |
| Instability | | 0 |
| Specific Hazard | -- | -- |

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).