# SAFETY DATA SHEET
# FMO-350-AW

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

## 1. Identification

### Product identifier

**Product name** FMO-350-AW

**Product number** L0882-062, L0882-057, L0882-059, L0882-061, L0882-070, L0882-074, L0882-060, L0882-200, L0882-072

**NSF Registration Number** 122665

### Recommended use of the chemical and restrictions on use

**Application** Food grade lubricating oil

**Uses advised against** No specific uses advised against are identified.

### Details of the supplier of the safety data sheet

**Manufacturer**

Lubriplate Lubricants Co.
Corporate Headquarters
129 Lockwood Street
Newark, NJ 07105

Midwest Office & Plant
1500 Oakdale Ave.
Toledo, OH 43605
419-691-2491
419-693-3806

### Emergency telephone number

**Emergency telephone** Chem-Tel: 1-800-255-3924 (US & Canada only)
01-813-248-0585 (Outside US & Canada)

## 2. Hazard(s) identification

### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Not Classified

**Environmental hazards** Not Classified

### Label elements

**Hazard statements** NC Not Classified

### Other hazards

This product does not contain any substances classified as PBT or vPvB.

## 3. Composition/information on ingredients

### Mixtures

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| White mineral oil (petroleum) | 60-100% |
|---|---|
| CAS number: 8042-47-5 | |

**Classification**
Not Classified

The full text for all hazard statements is displayed in Section 16.

## 4. First-aid measures

### Description of first aid measures

**General information** Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

**Inhalation** Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

**Ingestion** Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

**Skin Contact** Remove affected person from source of contamination. Rinse immediately with plenty of water.

**Eye contact** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.

**Protection of first aiders** First aid personnel should wear appropriate protective equipment during any rescue.

### Most important symptoms and effects, both acute and delayed

**General information** See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation** Prolonged inhalation of high concentrations may damage respiratory system.

**Ingestion** Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.

**Skin contact** Prolonged contact may cause dryness of the skin.

**Eye contact** May cause temporary eye irritation.

### Indication of immediate medical attention and special treatment needed

**Notes for the doctor** Treat symptomatically.

**Specific treatments** No special treatment required.

## 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Special hazards arising from the substance or mixture

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up.

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**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

### Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.

### Environmental precautions

**Environmental precautions** Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

### Conditions for safe storage, including any incompatibilities

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**Storage precautions** Store away from incompatible materials (see Section 10). Store in accordance with local regulations.

**Storage class** Chemical storage.

**Specific end uses(s)**

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

**Control parameters**

**Occupational exposure limits**

**White mineral oil (petroleum)**

Mineral oil, excluding metal working fluids (pure, highly and severely refined)
Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³ inhalable fraction

**diphenylamine**

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m³
A4

**toluene**

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 75 mg/m³
A4
Long-term exposure limit (8-hour TWA): OSHA 200 ppm
Ceiling exposure limit: OSHA 300 ppm

**ethylbenzene**

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 435 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 87 mg/m³
A3

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.
A4 = Not Classifiable as a Human Carcinogen.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

**ethylbenzene (CAS: 100-41-4)**

| | |
|---|---|
| **Immediate danger to life and health** | 800 ppm |

**toluene (CAS: 108-88-3)**

| | |
|---|---|
| **Immediate danger to life and health** | 500 ppm |

**Exposure controls**

**Protective equipment**



**Appropriate engineering controls** Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

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| | |
|---|---|
| **Eye/face protection** | Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. The following protection should be worn: Chemical splash goggles. |
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. |
| **Other skin and body protection** | Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. |
| **Hygiene measures** | Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. |
| **Respiratory protection** | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn. |
| **Environmental exposure controls** | Not regarded as dangerous for the environment. |

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | Liquid. |
| **Color** | Colorless to pale yellow. |
| **Odor** | Mineral oil |
| **Odor threshold** | Not available. |
| **pH** | Not available. |
| **Melting point** | Not available. |
| **Initial boiling point and range** | >288°C (>550.4°F) |
| **Flash point** | 249°C/480°F Method: Cleveland open cup. |
| **Evaporation rate** | < 0.01 (butyl acetate = 1) |
| **Evaporation factor** | Not available. |
| **Flammability (solid, gas)** | Not applicable. |
| **Upper/lower flammability or explosive limits** | Lower flammable/explosive limit, Upper flammable/explosive limit: 0.9%/7% |
| **Other flammability** | Not available. |
| **Vapor pressure** | <0.0013 kPa @ °C |
| **Vapor density** | > 5 |

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| | |
|---|---|
| **Relative density** | 0.87 |
| **Bulk density** | Not available. |
| **Solubility(ies)** | Insoluble in water. |
| **Partition coefficient** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition Temperature** | Not available. |
| **Viscosity** | 68 cSt @ 40°C |
| **Explosive properties** | Not available. |
| **Explosive under the influence of a flame** | Not considered to be explosive. |
| **Oxidizing properties** | Not available. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | See the other subsections of this section for further details. |
| **Stability** | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
| **Possibility of hazardous reactions** | No potentially hazardous reactions known. |
| **Conditions to avoid** | There are no known conditions that are likely to result in a hazardous situation. |
| **Materials to avoid** | No specific material or group of materials is likely to react with the product to produce a hazardous situation. |
| **Hazardous decomposition products** | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

## 11. Toxicological information

### Information on toxicological effects

| | |
|---|---|
| **Toxicological effects** | Not regarded as a health hazard under current legislation. |

### Acute toxicity - oral

| | |
|---|---|
| **Notes (oral $LD_{50}$)** | Based on available data the classification criteria are not met. |

### Acute toxicity - dermal

| | |
|---|---|
| **Notes (dermal $LD_{50}$)** | Based on available data the classification criteria are not met. |

### Acute toxicity - inhalation

| | |
|---|---|
| **Notes (inhalation $LC_{50}$)** | Based on available data the classification criteria are not met. |

### Skin corrosion/irritation

| | |
|---|---|
| **Animal data** | Based on available data the classification criteria are not met. |

### Serious eye damage/irritation

| | |
|---|---|
| **Serious eye damage/irritation** | Based on available data the classification criteria are not met. |

### Respiratory sensitization

| | |
|---|---|
| **Respiratory sensitization** | Based on available data the classification criteria are not met. |

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**Skin sensitization**

| | |
|---|---|
| **Skin sensitization** | Based on available data the classification criteria are not met. |

**Germ cell mutagenicity**

| | |
|---|---|
| **Genotoxicity - in vitro** | Based on available data the classification criteria are not met. |

**Carcinogenicity**

| | |
|---|---|
| **Carcinogenicity** | Based on available data the classification criteria are not met. |
| **IARC carcinogenicity** | None of the ingredients are listed or exempt. |

**Reproductive toxicity**

| | |
|---|---|
| **Reproductive toxicity - fertility** | Based on available data the classification criteria are not met. |
| **Reproductive toxicity - development** | Based on available data the classification criteria are not met. |

**Specific target organ toxicity - single exposure**

| | |
|---|---|
| **STOT - single exposure** | Not classified as a specific target organ toxicant after a single exposure. |

**Specific target organ toxicity - repeated exposure**

| | |
|---|---|
| **STOT - repeated exposure** | Not classified as a specific target organ toxicant after repeated exposure. |

**Aspiration hazard**

| | |
|---|---|
| **Aspiration hazard** | Based on available data the classification criteria are not met. |

| | |
|---|---|
| **General information** | No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| **Inhalation** | Prolonged inhalation of high concentrations may damage respiratory system. |
| **Ingestion** | Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. |
| **Skin Contact** | Prolonged contact may cause dryness of the skin. |
| **Eye contact** | May cause temporary eye irritation. |
| **Route of exposure** | Ingestion Inhalation Skin and/or eye contact |
| **Target Organs** | No specific target organs known. |

## 12. Ecological information

| | |
|---|---|
| **Ecotoxicity** | Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment. |
| **Toxicity** | Based on available data the classification criteria are not met. |

**Persistence and degradability**

| | |
|---|---|
| **Persistence and degradability** | The degradability of the product is not known. |

**Bioaccumulative potential**

| | |
|---|---|
| **Bio-Accumulative Potential** | No data available on bioaccumulation. |
| **Partition coefficient** | Not available. |

**Mobility in soil**

| | |
|---|---|
| **Mobility** | No data available. |

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### Other adverse effects

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

**General information** The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

**Disposal methods** Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

## 14. Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

### UN Number

**UN No. (International)** Not applicable.

**UN No. (DOT)** Not applicable.

### UN proper shipping name

**Proper shipping name (International)** Not applicable.

**Proper shipping name (DOT)** Not applicable.

### Transport hazard class(es)

**Transport Labels (International)** No transport warning sign required.

**DOT transport labels**
No transport warning sign required.

### Packing group

**Packing group (International)** Not applicable.

**DOT packing group** Not applicable.

### Environmental hazards

**Environmentally Hazardous Substance**
No.

### Special precautions for user

Not applicable.

**DOT reportable quantity** Not applicable.

**DOT TIH Zone** Not applicable.

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**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

### US Federal Regulations

**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**
None of the ingredients are listed or exempt.

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**
None of the ingredients are listed or exempt.

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**
None of the ingredients are listed or exempt.

**SARA 313 Emission Reporting**
The following ingredients are listed or exempt:

*diphenylamine*
1.0 %

**CAA Accidental Release Prevention**
None of the ingredients are listed or exempt.

**FDA - Essential Chemical**
None of the ingredients are listed or exempt.

**FDA - Precursor Chemical**
None of the ingredients are listed or exempt.

**SARA (311/312) Hazard Categories**
None of the ingredients are listed or exempt.

**OSHA Highly Hazardous Chemicals**
None of the ingredients are listed or exempt.

### US State Regulations

**California Proposition 65 Carcinogens and Reproductive Toxins**
None of the ingredients are listed or exempt.

**California Air Toxics "Hot Spots" (A-I)**
None of the ingredients are listed or exempt.

**California Air Toxics "Hot Spots" (A-II)**
None of the ingredients are listed or exempt.

**California Directors List of Hazardous Substances**
The following ingredients are listed or exempt:

*diphenylamine*

**Massachusetts "Right To Know" List**
The following ingredients are listed or exempt:

*diphenylamine*

**Rhode Island "Right To Know" List**
The following ingredients are listed or exempt:

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*diphenylamine*

**Minnesota "Right To Know" List**
The following ingredients are listed or exempt:

*diphenylamine*

**New Jersey "Right To Know" List**
The following ingredients are listed or exempt:

*diphenylamine*

**Pennsylvania "Right To Know" List**
The following ingredients are listed or exempt:

*diphenylamine*

**Inventories**

**US - TSCA**
All the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**
None of the ingredients are listed or exempt.

## 16. Other information

| | |
|---|---|
| **Abbreviations and acronyms used in the safety data sheet** | TDG: The transport of dangerous goods act<br><br>IATA: International air transport association.<br>ICAO: Technical instructions for the safe transport of dangerous goods by air.<br>IMDG: International maritime dangerous goods.<br>CAS: Chemical abstracts service.<br>ATE: Acute toxicity estimate.<br>$LC_{50}$: Lethal concentration to 50 % of a test population.<br>$LD_{50}$: Lethal dose to 50% of a test population (median lethal dose).<br>$EC_{50}$: 50% of maximal effective concentration.<br>PBT: Persistent, bioaccumulative and toxic substance.<br>vPvB: Very persistent and very bioaccumulative. |
| **Training advice** | Read and follow manufacturer's recommendations. Only trained personnel should use this material. |
| **Revision comments** | Rereleased through new GHS Software. |
| **Revision date** | 3/26/2019 |
| **Revision** | 1 |
| **Supersedes date** | 5/23/2017 |
| **SDS No.** | 4806 |

**End of SDS**

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