Material Safety Data Sheet

FMO 350-AW Aerosol

1. Product and company identification

Product name : FMO 350-AW Aerosol

Material uses : Petroleum lubricating oil

Code : NSF# 126089

Supplier/Manufacturer : LUBRIPLATE® Lubricants Co.
129 Lockwood St.
Newark, NJ 07105
Telephone no.: 1-973-589-9150

Validation date : 7/18/2011.

Prepared by : Atrion Regulatory Services, Inc.

In case of emergency : CHEM-TEL 1-800-255-3924 (24 hour)

2. Hazards identification

Physical state : Gas. [Aerosol.]

Color : Off-white.

Odor : Characteristic.

Emergency overview

Signal word : DANGER!

Hazard statements : FLAMMABLE.

Precautions : Do not puncture, incinerate or store the container at temperatures above 120°F (49°C) or in direct sunlight. Avoid contact with skin and clothing.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Routes of entry : Dermal contact. Eye contact. Inhalation.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

Potential chronic health effects

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin : No specific data.

2. Hazards identification

Eyes : Adverse symptoms may include the following:
irritation
redness

Medical conditions aggravated by over-exposure : None known.

3. Composition/information on ingredients

United States

Name	CAS number	%
White mineral oil (petroleum) Petroleum gases, liquefied	8042-47-5 68476-85-7	60-100 10-30

Canada

Name	CAS number	%
White mineral oil (petroleum) Petroleum gases, liquefied	8042-47-5 68476-85-7	60-100 10-30

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

5. Fire-fighting measures

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Hydrogen chloride (HCl).

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous.

7. Handling and storage

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

White mineral oil (petroleum)

ACGIH TLV (United States, 2/2010).
TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM–TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract.
ACGIH TLV (United States).
TWA: 5 mg/m³ Form: Mist
STEL: 10 mg/m³ Form: Mist
NIOSH REL (United States, 6/2009).
TWA: 5 mg/m³ 10 hour(s). Form: Mist
STEL: 10 mg/m³ 15 minute(s). Form: Mist
OSHA PEL (United States, 6/2010).
TWA: 5 mg/m³ 8 hour(s).

Petroleum gases, liquefied

OSHA PEL 1989 (United States, 3/1989).
TWA: 1000 ppm 8 hour(s).
TWA: 1800 mg/m³ 8 hour(s).
NIOSH REL (United States, 6/2009).
TWA: 1000 ppm 10 hour(s).
TWA: 1800 mg/m³ 10 hour(s).
OSHA PEL (United States, 6/2010).
TWA: 1000 ppm 8 hour(s).
TWA: 1800 mg/m³ 8 hour(s).
ACGIH TLV (United States, 2/2010).
TWA: 1000 ppm 8 hour(s).

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	**List name**	**ppm**	**mg/m³**	**Other**	**ppm**	**mg/m³**	**Other**	**ppm**	**mg/m³**	**Other**	**Notations**
Petroleum gases, liquefied	US ACGIH 2/2010	1000	-	-	-	-	-	-	-	-	
	AB 4/2009	1000	-	-	1500	-	-	-	-	-	
	BC 10/2009	1000	-	-	-	-	-	-	-	-	
	ON 7/2010	1000	-	-	-	-	-	-	-	-	
	QC 6/2008	1000	1800	-	-	-	-	-	-	-	
White mineral oil (petroleum)	US ACGIH 2/2010	-	5	-	-	-	-	-	-	-	[a]
	US ACGIH	-	5	-	-	10	-	-	-	-	[b]
	BC 10/2009	-	1	-	-	-	-	-	-	-	
	ON 7/2010	-	5	-	-	10	-	-	-	-	[c]
	QC 6/2008	-	5	-	-	10	-	-	-	-	[c]

Form: [a]Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM–TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract. [b]Mist [c]mist

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

8. Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Gas. [Aerosol.]

Flash point : Propellant: -18°C (-0.4°F)
Open cup: 224°C (435.2°F) (without propellant)

Auto-ignition temperature : 254°C (489.2°F)

Flammable limits : Lower: 0.9%
Upper: 9.5% (Propellant)

Color : Off-white.

Odor : Characteristic.

pH : Not available.

Boiling/condensation point : Not available.

Melting/freezing point : Not available.

Relative density : 0.88

Density : Not available.

Vapor pressure : 1034.2 kPa (7757 mm Hg)

Vapor density : >5 [Air = 1]

Odor threshold : Not available.

Evaporation rate : Not available.

Viscosity : Not available.

Solubility : Insoluble in the following materials: cold water and hot water.

LogK_{ow} : Not available.

Physical/chemical properties comments : Kinematic viscosity (100°C)(212°F)): 0.08 cm^2/s (8 cSt)

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Keep away from heat, sparks and flame. Keep away from sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
White mineral oil (petroleum)	LD50 Oral	Rat	>5000 mg/kg	-

Chronic toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitizer

Not available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
White mineral oil (petroleum)	A4	-	-	-	-	-

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Not available.

Persistence/degradability

Not available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	-	Consumer commodity	ORM-D	-		**Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 30 kg **Cargo aircraft** Quantity limitation: 30 kg
TDG Classification	UN1950	AEROSOLS	2.1	-		**Explosive Limit and Limited Quantity Index** 1 **Passenger Carrying Road or Rail Index** 75
IMDG Class	UN1950	AEROSOLS	2.1	-		**Emergency schedules (EmS)** F-D, S-U
IATA-DGR Class	ID8000	Consumer commodity	9	-		**Passenger and Cargo Aircraft**Quantity limitation: 30 kg Packaging instructions: Y963 **Cargo Aircraft Only**Quantity limitation: 30 kg Packaging instructions: Y963 **Limited Quantities - Passenger Aircraft**Quantity limitation: 30 kg Packaging instructions: Y963

PG* : Packing group

15. Regulatory information

United States

HCS Classification : Compressed gas
Flammable aerosol

U.S. Federal regulations : **TSCA 8(a) PAIR**: SF-96
TSCA 8(a) IUR: Partial exemption
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 8(d) H and S data reporting: SF-96

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Petroleum gases, liquefied
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Petroleum gases, liquefied: Fire hazard, Sudden release of pressure

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 313

Form R - Reporting requirements Not applicable.

Supplier notification Not applicable.

State regulations

Massachusetts : The following components are listed: LIQUIFIED PETROLEUM GAS (L.P.G.)

New York : None of the components are listed.

New Jersey : The following components are listed: LIQUEFIED PETROLEUM GAS; L.P.G

Pennsylvania : The following components are listed: PETROLEUM GASES, LIQUEFIED

California Prop. 65

None of the components are listed.

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-5: Flammable aerosol.

Canadian lists

Canadian NPRI : The following components are listed: White mineral oil

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

15. Regulatory information

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

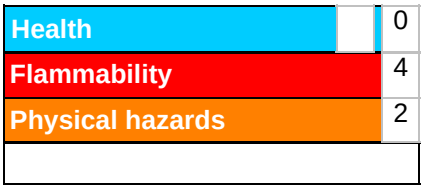
Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

16. Other information

Label requirements : FLAMMABLE.

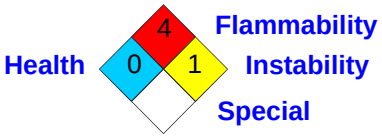
Hazardous Material Information System (U.S.A.) :



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of issue : 7/18/2011.

Date of previous issue : No previous validation.

Version : 1

16. Other information

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.