





Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
	Non-controlled		Not regulated

Revision Date: 26-Aug-2009

Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Daphne Hermetic Oil FVC68D, 52.84 Gallon Drum
Product Code: 3438025
Recommended Use: Refrigerant Oil

Contact Manufacturer
Idemitsu Lubricants America,
701 Port Rd.
Jeffersonville, IN. 47130
Telephone: 812-285-8234
Fax: 812-285-8243
Contact Name: Robin Hutchens
Email: rhutchens@ilacorp.com

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

May cause irritation to skin, eyes, and Respiratory Tract

Appearance: Light Yellow

Physical State: Liquid

Odor: Charateristic

Potential Health Effects

Principle Routes of Exposure Skin, Eye

Acute Effects

Eyes

May cause slight irritation

Skin

Substance may cause slight skin irritation.

Inhalation

May cause irritation of respiratory tract

Ingestion

May be harmful if swallowed

Chronic Effects

Prolonged exposure may cause chronic effects

See Section 11 for additional Toxicological information.

Signs and Symptoms: Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract

Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Hazardous Components

Chemical Name	CAS-No	Weight %
Polyvinylether (PVE)	Confidential	60 - 100
Tricresyl Phosphate (TCP) (<1% ortho isomers)	Confidential	1 - 5
Organophosphate Compound	Confidential	0.1 - 1

4. FIRST AID MEASURES

General Advice If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

5. FIRE-FIGHTING MEASURES

Flammable Properties NFPA: Class IIIB Combustible Liquid

Suitable Extinguishing Media Foam, Dry chemical, Water spray, Carbon dioxide (CO₂) .

Hazardous Combustion Products fumes. smoke. Carbon oxides (COx). Nitrogen oxides (NOx).

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA **Health:** 1 **Flammability:** 1 **Instability:** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for Clean-up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

Spill Management

LARGE SPILLS Eliminate sources of ignition. Prevent additional discharge of material if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 15 Regulatory Information) notify the National Response Center.

WATER SPILLS Prevent liquid entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Recover by pumping or with suitable absorbent. If liquid is too viscous for pumping, scrape up. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. The product should not be allowed to enter drains, water courses or the soil. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

Storage Container Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition.

Safe Handling Advice Handle in accordance with good industrial hygiene and safety practices

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Hazardous Components

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico	NIOSH IDLH
Organophosphate Compound	TWA: 2 mg/m ³		TWA: 2 mg/m ³	STEL: 20 mg/m ³ TWA: 10 mg/m ³	

Engineering measures Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/face Protection Safety glasses with side-shields.

Skin Protection Wear protective gloves/clothing. **Glove Type:** Neoprene, Nitriles

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light Yellow
Odor: Charateristic
Physical State: Liquid
Flash Point Method: 206°C / 403°F
 COC ASTM D92

Density: 0.94 g/cm³@15°C
Viscosity: @40C = 66.57 cSt; @100C = 8.037 cSt

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions
Conditions to Avoid: Heat, flames and sparks
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapors

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information (Estimated):

LD50 Oral: 139907.98 mg/kg
LD50 Dermal: 2001000.1 mg/kg

Hazardous Components

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Tricresyl Phosphate (TCP) (<1% ortho isomers)	3 g/kg (Rat)		
Organophosphate Compound	890 mg/kg (Rat)		

Chronic Toxicity

Carcinogenicity:

The table below indicates whether each agency has listed any ingredient as a carcinogen

Hazardous Components

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico

Organophosphate Compound		Group 3			A4 - Not classifiable as a human carcinogen
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12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental hazard assessment.

Hazardous Components

Chemical Name	Freshwater Algae	LC50 Fresh Water Fish	Microtox	Water Flea
Tricresyl Phosphate (TCP) (<1% ortho isomers)		0.21-0.32 mg/L 3.3-6.2 mg/L 0.1-0.22 mg/L 20.4-41.2 mg/L >3.2-<10 mg/L 4.8-6.4 mg/L		
Organophosphate Compound	h EC50 72 6 mg/L	5 mg/L	EC50 = 7.82 mg/L 5 min EC50 = 8.57 mg/L 15 min EC50 = 8.98 mg/L 30 min	

Hazardous Components

Chemical Name	EC50/48h/daphnia =	log Pow
Organophosphate Compound		4.17

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

All components in the product are on the following Inventory Lists: U.S.A. (TSCA), Korea (ECL), China (IECSC).

Hazardous Components

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS	NZIoC
Polyvinylether (PVE)	X	-	-	-	-	-	X	X	-	-	-
Tricresyl Phosphate (TCP) (<1% ortho isomers)	X	X	-	X	-	X	X	X	X	X	X
Organophosphate Compound	X	X	-	X	-	X	X	X	X	X	X

USA

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA/SARA 302 & 304

Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 355.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Organophosphate Compound	X	X	X		X
Tricresyl Phosphate (TCP) (<1% ortho isomers)		X			

Canada

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

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION

Revision Date: 26-Aug-2009

Revision Summary Not available

Disclaimer:

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS