

Prod.Name: Daphne Hermetic Oil PS-D1
Manufacturer: Idemitsu Lubricants America Corporation
HMCS ID: 30077485
SUC: 04 - Metal Working Fluids and Lubricants

MATERIAL SAFETY DATA SHEET

Revision: 02.Apr.2012
Effective: 02.May.2011
Print Date: 24.May.2012
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1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT INFORMATION

Product Name: Daphne Hermetic Oil PS-D1

Recommended Use:

Refrigerant Oil

External Keys:

19260643 Distributable Material (Part #)
10-4084 Distributable Material (Part #)
ACDelco Air Primary Tradename - Distributable Material
Conditioner
Compressor Oil

MANUFACTURER INFORMATION

Manufacturer: Idemitsu Lubricants America Corporation

Address:

701 Port Road USA Indiana 47130 Jeffersonville MAILING

Communication Lines:

Fax 812-284-6840
Phone 812-284-3300 Information
Phone 800-424-9300 Emergency (Chemtrec)

2 INGREDIENT INFORMATION

FORMULATION

Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Exposure Limits</u>
BICYCLO(3.1.1)HEPTANE, 6,6-DIMETHYL-2-METHYLENE-	127-91-3	Range	0.1 - 1	% Wt	Yes
p-CRESOL, 2,6-DI-tert-BUTYL-	128-37-0	Range	0.1 - 1	% Wt	Yes
POLYPROPYLENE GLYCOLS	989919-07-4	Range	60 - 100	% Wt	No

3 HAZARDS IDENTIFICATION

Hazards Overview:

Emergency Overview:

Vapors may be irritating to eyes, nose, throat, and lungs.

Specific Hazards:

Principle Routes of Exposure: Skin, Eye.

Specific Hazards (Routes Of Exposure):

<u>Exposure Routes</u>	<u>Exposure Duration</u>	<u>Observation</u>
Eye contact	Acute	May cause slight irritation.
Skin Contact	Acute	Substance may cause slight skin irritation.
Inhalation	Acute	May cause irritation of respiratory tract.
Ingestion	Acute	May be harmful if swallowed.

Medical Conditions Aggravated By Exposure:

Not provided

Additional Health Hazard Data:

Chronic Effects: Prolonged or repeated exposure increases the risk.

4 FIRST AID MEASURES

First Aid Procedures:

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

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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4 FIRST AID MEASURES

First Aid By::

Inhalation Move to fresh air in case of accidental inhalation of vapours or decomposition products. Oxygen or artificial respiration if needed. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

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

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.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. If symptoms persist, call a physician.

5 FIRE FIGHTING MEASURES

Product Flammability:

NFPA: Class IIIB Combustible Liquid.

Flash Point:

= 170 °C COC ASTM D92 338°F

Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and Explosion Hazards:

Hazardous combustion products: Carbon oxides, oxides of phosphorus, smoke and irritating vapors as products of incomplete combustion.

Special Fire Fighting Procedures:

Specific Hazards Arising from the Chemical: Keep product and empty container away from heat and sources of ignition.

Comment:

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 Page.

6 ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IN CASE OF ACCIDENTAL RELEASE

Personal Precautions:

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

Environmental Precautions:

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

SPILL OR LEAK PROCEDURES

Recovery:

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

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

Safe Handling Procedures:

Wash hands thoroughly after handling. Avoid breathing vapors or mists. Keep in a well-ventilated place. Remove all sources of ignition. Handle in accordance with good industrial hygiene and safety practices.

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7 HANDLING AND STORAGE

STORAGE

Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Keep away from heat and sources of ignition.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed above is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

EXPOSURE LIMITS

Limit Values:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Type</u>	<u>Value</u>	<u>Specification</u>	<u>Source</u>
BICYCLO(3.1.1)HEPTANE, 6,6-DIMETHYL-2-METHYLENE-	127-91-3	TLV-TWA	20ppm	-	Threshold Limit Values (TLVs) - ACGIH
p-CRESOL, 2,6-DI-tert-BUTYL-	128-37-0	TLV-TWA	2mg/m3	-	Threshold Limit Values (TLVs) - ACGIH

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE):

Eye Protection	Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If splashes are likely to occur wear tight fitting safety goggles and/or face-shield.
Skin Protection	Choose the appropriate protective clothing based on the tasks being performed to avoid exposed skin surfaces. Use clean protective clothing if splashing or spraying conditions are present. Protective clothing may include long -sleeve outer garment, apron, or lab coat.
Hand Protection	Choose the appropriate protective gloves based on the tasks being performed to avoid exposed skin surfaces. Glove Type: Neoprene, Nitriles.
Respiratory Protection	In case of insufficient ventilation, wear suitable respiratory equipment If exposure limits are exceeded or irritation is experienced, IMIOSH/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.

Hygiene Measures:

Wash hands and face before breaks and immediately after handling the product.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical State: Liquid

Color: Light Yellow

Odor: Characteristic

PHYSICAL PROPERTIES

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9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Density:

Density = 0.98 g/cm³(cc) = 15 °C

Specific Gravity:

= 0.98 = 15 °C

Viscosity:

Viscosity = 46.95 = 40 °C cSt

Viscosity = 10.42 = 100 °C cSt

10 STABILITY AND REACTIVITY

STABILITY INFORMATION

Stability Under Normal Conditions: Stable

Conditions to Avoid:

Heat, flames and sparks.

Incompatible Materials:

Strong oxidizing agents.

Comment:

Stable under normal conditions.

HAZARDOUS DECOMPOSITION

Reactions:

<u>Type of Reaction</u>	<u>Reaction Products</u>
Decomposition	Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapors.

11 TOXICOLOGICAL INFORMATION

SCIENTIFIC OBSERVATIONS

LETHAL LIMIT VALUES

Product Data:

<u>Exposure Routes</u>	<u>Type</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>
oral	LD50	=	100202	mg/kg
dermal	LD50	=	2108	mg/kg

Data By Chemical:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Exposure Routes</u>	<u>Type</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Species</u>
BICYCLO(3.1.1) HEPTANE, 6,6- DIMETHYL-2- METHYLENE-	127-91-3	oral	LD50	=	4700	mg/kg	rat
p-CRESOL, 2,6-DI-tert- BUTYL-	128-37-0	oral	LD50	=	890	mg/kg	rat

CLASSIFICATION OF INGREDIENTS

Carcinogenicity:

The table below indicates whether each agency has listed any ingredient as a carcinogen:
2,6-Di-tert-butyl-p-cresol 127-37-0: IARC group 3.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Comment:

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12 ECOLOGICAL INFORMATION

ECOTOXICITY

Comment:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2,6-Di-tert-butyl-p-cresol

Freshwater Algae:

EC50 = 6 mg/L 72 h.

EC50 > 0.42 mg/L 72 h.

LC50 Fresh Water Fish: 48 h.

Microtox:

EC50 = 7.82 mg/L 5 min.

EC50 = 8.57 mg/L 15 min.

EC50 = 8.98 mg/L 30 min.

2,6-Di-tert-butyl-p-cresol:

log Row: 4.17.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Information:

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

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 Information:

Not regulated

This product contains a chemical which is listed as a marine pollutant according to DOT.

The marine pollutant contained in this product is < 10%

Comment:

IATA: Not regulated

IMDG/IMO: Not regulated

This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO.

The marine pollutant contained in this product is < 10%

15 REGULATORY INFORMATION

LABELLING

Hazard Codes:

NFPA Health 1

NFPA Flammability 1

NFPA Reactivity 0

NATIONAL REGULATIONS

SARA 311/312: No

SARA 313: No

Immediate Health: No

Delayed Health: No

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15 REGULATORY INFORMATION

NATIONAL REGULATIONS

Fire: No

Sudden Pressure Release: No

Reactive: No

Other Regulation:

OSHA

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

TSCA

AH components in the product are on the Inventory.

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.

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/LOCAL REGULATIONS

Comment:

California Proposition 65: This product does not contain any Proposition 65 chemicals.

State Right-to-Know: This product does not contain any substances regulated by state right-to-know regulations.

16 OTHER INFORMATION