

Product Name:	PPE			
Idemitsu Polyvinyl Ether Lubricant (4319-14)				

Revision Date: 02-Nov-2017

Revision Number: 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Idemitsu Polyvinyl Ether Lubricant

Other means of identification

Product Code: 4319-14

Synonyms: Not available

1.2 Recommended use of the chemical and restrictions on use

Recommended Use: Lubricant

Uses advised against: No information available

1.3. Details of the supplier of the safety data sheet

Supplied by: Nu-Calgon Wholesaler, Inc.
2611 Schuetz Road, St. Louis, MO 63043

Manufactured by: IDEMITSU KOSAN CO., LTD
3-1-1 MARUNOUCHI CHIYODA-KU
TOKYO JAPAN
PHONE: +81-3-3213-3143

24 Hour Emergency Phone Number: Within USA and Canada: 1 800-424-9300
Outside USA and Canada: + 1 703-741-5970 (collect calls accepted)

2. HAZARDS IDENTIFICATION

2.1 Classification

This material is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and WHMIS 2015

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified
Acute Toxicity - Inhalation (Gases)	Not classified
Acute Toxicity - Inhalation (Vapors)	Not classified
Acute Toxicity - Inhalation (Dusts/Mists)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/eye irritation	Not classified
Respiratory sensitization	Not classified
Skin sensitization	Category 1A
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration toxicity	Not classified
Physical Hazards	Not classified
Physical Hazards	None

2.2. Label elements



Signal word

Warning

Hazard statements

H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child if swallowed

Precautionary Statements - Prevention:

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves/protective clothing and eye/face protection
P261 - Avoid breathing dust, fume, gas, mist, vapors or spray
P272 - Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response:

P308 + P313 - IF exposed or concerned: Get medical advice/attention
P321 - Specific treatment (see supplemental first aid instructions on this label)
P362 + P364 - Take off all contaminated clothing and wash it before reuse

Skin

P302 + 352 - IF ON SKIN: Wash with plenty of soap and water
P363 - Wash contaminated clothing before reuse
P333 + P313 - If skin irritation or rash occurs: Get medical

advice/attention

Precautionary Statements - Storage:

P405 - Store locked up

Precautionary Statements - Disposal:

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

2.3 Other information

Other hazards

- May be harmful in contact with skin
- Toxic to aquatic life
- Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Hazardous Components

Chemical Name	CAS No.	Weight-%	US GHS Classification	Notes
Tricresylphosphate	1330-78-5	1-5	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Reproductive 2 (H361) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
Oxirane, [[(2-ethylhexyl)oxy]methyl]-	2461-15-6	<1	Skin Sens. 1 (H317)	

4. FIRST AID MEASURES

4.1 First Aid Measures

General Advice

If symptoms persist, call a physician. Take a copy of the Safety Data Sheet when going for medical treatment.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. Call a physician immediately.

Inhalation

In case of inadequate ventilation wear respiratory protection. If breathing difficulties develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If unconscious place in recovery position and seek medical advice. Move to fresh air in case of accidental inhalation of vapors. If not breathing, give

	artificial respiration. Call a physician immediately.
Ingestion	Do not induce vomiting without medical advice. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Protection of First-aiders	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Flammable Properties	NFPA: Class IIIB Combustible Liquid
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5.1 Suitable Extinguishing Media:

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

Unsuitable Extinguishing Media:

No information available.

5.2 Specific Hazards Arising from the Chemical

Hazardous combustion products:

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

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and / or irritating. Combustion products may include and are not limited to:
Carbon oxides
Oxides of Phosphorus
Sulphur oxides

5.3 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use personal protection recommended in Section 8. Ensure adequate ventilation. Remove all sources of ignition.
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6.2 Environmental Precautions

Environmental Precautions	See section 12 for additional ecological information. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.
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6.3 Methods and material for containment and cleaning up

Methods for Clean-up	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
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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

7.1. Precautions for safe handling

Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dusts or mists. Avoid contact with eyes, skin and clothing. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protection recommended in Section 8. Wash hands thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.

Safe Handling Advice

Wear personal protective equipment. Do not breathe vapors or spray mist. Use product only in closed system.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Keep in properly labeled containers. Keep container tightly closed in a dry and well-ventilated place.

Technical measures/Precautions

Ensure adequate ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Further information on storage conditions

Keep container tightly closed

Incompatible Materials and/or Coatings

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. 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 below 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.

Personal Protective Equipment

Eye/face 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	Wear protective gloves/clothing. Long sleeved clothing. Choose the appropriate protective clothing / gloves based on the tasks being performed to avoid exposed skin surfaces. 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	Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Clean equipment, work area and clothing regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Colorless
Physical State	Liquid
Odor	Characteristic
Odor Threshold	No information available
pH	Not applicable
Melting point / melting range	Not applicable
Boiling point / boiling range	No information available
Flash Point	> 170 °C / 338 °F COC ASTM D92
Evaporation Rate	No information available
Flammability Limit in Air	No information available
Explosion Limits	No information available
Vapor Pressure	No information available
Vapor Density (Air)	No information available
Density	0.92 g/cm ³ @15°C
Solubility	No information available
Partition Coefficient (n-octanol/water)	No information available
Autoignition Temperature	No information available
Decomposing Temperature	No information available
Viscosity	@ 40C = 32.4 cSt; @ 100C = 5.12 cSt

Other Information

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity The product is chemically stable

10.2 Chemical stability

Chemical Stability Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4 Conditions to Avoid

Conditions to Avoid Heat, flames and sparks.

10.5 Incompatible Materials

Incompatible Materials Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Hazardous decomposition products Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

11.1 Information on likely routes of exposure

- Inhalation** May cause irritation of respiratory tract.
- Eye contact** May cause slight irritation.
- Skin Contact** May cause an allergic skin reaction.
- Ingestion** May be harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation- dust/mist
Tricresylphosphate 1330-78-5	= 3 g/kg (Rat) > 20000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Oxirane, [[[2-ethylhexyl)oxy]methyl]- 2461-15-6	= 7800 mg/kg (Rat)	2000 mg/kg	

11.2 Information on toxicological effects

Symptoms No information available

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Skin corrosion/irritation** Not classified.
- Serious eye damage/eye irritation** Not classified.
- Sensitization** May cause an allergic skin reaction.
- Mutagenic effects** Not classified.

11.4 Carcinogenicity

Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, OSHA or ACGIH.

Legend:

NTP (National Toxicology Program) ACGIH (American Conference of Governmental Industrial Hygienists) IARC (International Agency for Research on Cancer) OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive Effects	Suspected of damaging fertility or the unborn child if swallowed.
Developmental Effects	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified.

11.5 Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Product Information (Estimated):

ATEmix (oral)	> 2,000 mg/kg
ATEmix (dermal)	> 2,000 mg/kg
ATEmix (inhalation-dust/mist)	> 10 mg/l
ATEmix (inhalation-vapor)	> 5,000 mg/l

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ecotoxicity effects

Toxic to aquatic life. Harmful to aquatic life with long lasting effects. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

12.2 Persistence and degradability No information available.

12.3 Bioaccumulation/Accumulation No information available

12.4. Mobility in soil No information available

PBT and vPvB assessment No information available

12.5 Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

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 - Non bulk Not regulated

DOT - Bulk Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	All ingredients are on the inventory or exempt from listing
DSL	All ingredients are on the inventory or exempt from listing
NDSL	Not Listed
ELINCS	Not Listed
ENCS	All ingredients are on the inventory or exempt from listing
CHINA	All ingredients are on the inventory or exempt from listing
KECL	All ingredients are on the inventory or exempt from listing
PICCS	Does not Comply
AICS	All ingredients are on the inventory or exempt from listing
NZIoC	Does not comply
REACH	All ingredients are on the inventory or exempt from listing

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	Skin Sensitizer Reproductive Toxicity
Chronic Health Hazard	Skin Sensitizer Reproductive Toxicity
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.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

State Right-to-Know

Chemical Name	CAS No.	Weight-%	New Jersey
Tricresylphosphate	1330-78-5	1-5	X

New Jersey Worker and Community Right-to-Know Act:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Lubricating Oil)

Canada

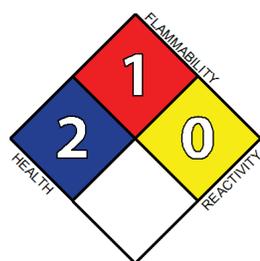
This material has been classified in accordance with the WHMIS 2015 regulation

Chemical Name	CAS No.	Weight-%	NPRI
2,6-di-tert-butyl p-cresol	128-37-0	<1	Listed

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION



NFPA

Health: 2

Flammability: 1

Instability: 0

Prepared By

Lakyn Neumeyer

Revision Date:

02-Nov-2017

Revision Summary:

Acute Toxicity Data Change

Disclaimer:

The information provided on this SDS 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 Safety Data Sheet