





SAFETY DATA SHEET

Product Name:	PPE
Denso ND - Oil 8 , 6 x 250cc Case	   

Revision Date: 02-Oct-2018

Revision Number: 5

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

1.1 Product identifier

Product Name: Denso ND - Oil 8 , 6 x 250cc Case

Other means of identification

Product Code: 32451301-76700C020
ND8

1.2 Recommended use of the chemical and restrictions on use

Recommended Use: Refrigerant Oil

1.3 Details of the supplier of the safety data sheet

Supplied by: Idemitsu Lubricants America Corporation
701 Port Rd., Jeffersonville, IN. 47130
Email: sds@ilacorp.com

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 1
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Category 2 - Testes
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration toxicity	Not classified
Physical hazards	Not classified

2.2 Label elements



Signal word

Hazard statements

Precautionary Statements - Prevention:

Precautionary Statements - Response:

Skin

Precautionary Statements - Storage:

Warning

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

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

P308 + P313 -IF exposed or concerned: Get medical advice or attention
P362 + P364 - Take off all contaminated clothing and wash it before reuse

P302 + 352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention

P405 - Store locked up

Precautionary Statements - Disposal:

P501 - Dispose of contents to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

2.3 Other information

Other hazards

Very toxic to aquatic life
Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixture

Hazardous Components

Chemical name	CAS No.	Weight-%	US GHS Classification	Notes
Polyoxyethylene dimethyl ether	24991-61-5	90-100	Skin Sens. 1 (H317)	
Tricresylphosphate	1330-78-5	<1	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Reproductive 2 (H361) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
Phenol, nonyl-, phosphite (3:1)	26523-78-4	<1	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-	94270-86-7	<1	Skin Irrit. 2 (H315) 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 or 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. If breathing is difficult, give oxygen. 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
<u>5.1 Suitable Extinguishing Media:</u>	Carbon dioxide (CO ₂), Dry powder, Foam, Water, Water spray
Unsuitable Extinguishing Media:	Do not use a solid water stream as it may scatter and spread fire.
<u>5.2 Specific Hazards Arising from the Chemical</u>	Keep product and empty container away from heat and sources of ignition.
Hazardous combustion products	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 Nitrogen oxides (NO _x) Oxides of Phosphorus
Sensitivity to mechanical impact:	No data available.
<u>5.3 Protective Equipment and Precautions for Firefighters</u>	Use personal protective equipment. In the event of fire, wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with the skin and the eyes. Use personal protective equipment.
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6.2. Environmental precautions

Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. 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	Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Soak up with inert absorbent material. Dam up. Clean contaminated surface thoroughly.
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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

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

Safe Handling Advice

Wear personal protective equipment. Remove and wash contaminated clothing before re-use.

7.2. Conditions for safe storage, including any incompatibilities

Storage

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

Technical measures/Precautions

Ensure adequate ventilation.

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 and 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

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Light Yellow
Physical state	Liquid
Odor	Mild
Odor Threshold	No Information available
pH	Not applicable
Melting point / melting range	Not applicable
Boiling point / boiling range	No Information available
Flash Point	> 204 °C / 399.2 °F COC ASTM D92
Evaporation Rate	No Information available
Flammability Limit in Air	No Information available
Explosion Limits	No Information available
Vapor pressure @20 °C (kPa)	No Information available
Vapor density	No Information available
Density	0.99 g/cm ³ @15°C
Solubility(ies)	No Information available
Partition coefficient	No Information available
Autoignition Temperature	No Information available
Decomposing Temperature	No Information available
Kinematic viscosity	@40C = 43.32 cSt; @100C = 9.23 cSt

Other Information

No additional information available

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, Strong acids

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.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Tricresylphosphate 1330-78-5	> 20000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	No Data
Phenol, nonyl-, phosphite (3:1) 26523-78-4	= 10000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl- 94270-86-7	3313 mg/kg	> 2000 mg/kg	

11.2 Information on toxicological effects

Symptoms	No Information available
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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.
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Legend:	<i>NTP (National Toxicology Program), IARC (International Agency for Research on Cancer), OSHA (Occupational Safety and Health Administration of the US Department of Labor), ACGIH (American Conference of Governmental Industrial Hygienists)</i>
Reproductive Effects	Suspected of damaging fertility or the unborn child if swallowed.
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Chronic Toxicity	Avoid repeated exposure.
Aspiration hazard	Not classified.

11.5 Acute Toxicity

Product Information (Estimated):

ATEmix (oral)	> 5,000 mg/kg
ATEmix (dermal)	> 5,000 mg/kg

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ecotoxicity effects	Very toxic to aquatic life. Toxic 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. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Unknown aquatic toxicity	95.84 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2 Persistence and degradability No Information available.

12.3 Bioaccumulation/Accumulation No Information available

12.4 Mobility in Environmental Media No Information available.

12.5 Other adverse effects:

PBT and vPvB assessment 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 < 119 gallons

DOT - Bulk Regulated

Shipping Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Oxirane, tetradecyl-), 9, PGIII, Marine Pollutant

IATA Regulated

Shipping Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Oxirane, tetradecyl-), 9, PGIII

IMDG Regulated

Shipping Description UN3082, Environmentally hazardous substances, liquid, n.o.s. (Oxirane, tetradecyl-), 9, PGIII, Marine Pollutant

MEX Regulated

Shipping Description UN3082, Environmentally hazardous substances, liquid, n.o.s. (Oxirane, tetradecyl-), 9, PGIII Marine Pollutant

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	There are ingredients listed on the NDSL Inventory List		
<u>Chemical name</u> Trade Secret	<u>NDSL</u> X	<u>CAS No.</u> Confidential	<u>Weight-%</u> 1-5
EINECS	All ingredients are on the inventory or exempt from listing		
ENCS	All ingredients are on the inventory or exempt from listing		
IECSC	All ingredients are on the inventory or exempt from listing		
KECL	All ingredients are on the inventory or exempt from listing		
PICCS	All ingredients are on the inventory or exempt from listing		
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

Label: 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	X
2,6-di-tert-butyl p-cresol	128-37-0	<1	X

Chemical name	CAS No.	Weight-%	Massachusetts
2,6-di-tert-butyl p-cresol	128-37-0	<1	X

Chemical name	CAS No.	Weight-%	Pennsylvania
Dipropylene glycol	25265-71-8	<1	X
2,6-di-tert-butyl p-cresol	128-37-0	<1	X

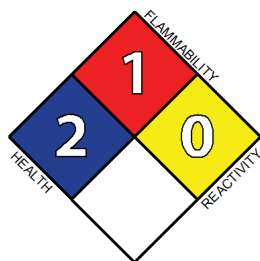
Canada

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
Phenol, nonyl-, phosphite (3:1)	26523-78-4	<1	Listed
Nonylphenol	25154-52-3	<0.01	Listed

Legend NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION



NFPA

Health hazards 2

Flammability 1

Instability 0

Prepared By: Aaron Keck
Revision Date: 02-Oct-2018
Revision Summary: Transportation change
Review
Updated Section 8
Corrected Section 11

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