



IDEMITSU

SAFETY DATA SHEET

Issue Date 04-Feb-2013

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Version 3

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name ND-OIL8

Other means of identification

Product Code 3245033800

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant

Details of the supplier of the safety data sheet

Manufacturer

Idemitsu Kosan Co., Ltd.

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Marunouchi

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Emergency telephone number

24 Hour Emergency Phone Number

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Mexico:+52 555 004 8763

Brazil:+55 113 711 9144

East/South East Asia:+65 3158 1074

Korea +65 3158 1285

Australia +61 2801 44558

New Zealand +64 9929 1483

SECTION 2: Hazards identification

Classification

Skin sensitization

Category 1

Label elements

Emergency Overview

SIGNAL WORD

Warning

Hazard statements

May cause an allergic skin reaction

**Appearance** clear**Physical state** liquid**Odor** characteristic**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

Not Applicable

Skin

IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

- Harmful to aquatic life with long lasting effects

Other Information

0.1% of the mixture consists of ingredient(s) of unknown toxicity

SECTION 3: Composition/information on ingredients

chemical name	CAS No	weight-%	Trade Secret
POLYETHER COMPOUNDS	-	>=90	*
LUBRICATING OIL ADDITIVE	-	<3	*
TRICRESYL PHOSPHATE (meta,para isomer mixed)	1330-78-5	<0.9	*
2,6-Di-tert-butyl-p-cresol	128-37-0	<0.5	*
Phenol, nonyl-, phosphite (3:1)	26523-78-4	<0.3	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures

first aid measures**Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

Skin Contact

Wash skin with soap and water.

INHALATION

Move to fresh air in case of accidental inhalation of vapors or decomposition products. (Get medical attention immediately if symptoms occur.).

INGESTION If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media

CO2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge none.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store at ambient conditions. Store in accordance with local regulations.

Incompatible materials None known based on information supplied.

SECTION 8: Exposure controls/personal protection

Control parameters

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

chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,6-Di-tert-butyl-p-cresol 128-37-0	-	-	TWA: 10 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Color	light yellow
Appearance	clear
Physical state	liquid
Odor	characteristic

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No data available	
Melting point/freezing point		
melting point	No information available	
Pour point	-45.0 °C	
freezing point	No information available	
Initial boiling point	260 °C Or more	
flash point	204 °C / 399 °F	Cleveland Open Cup
Flammability Limits in Air		
Upper flammability limits	7 vol%	
Lower flammability limit	1vol%	
Density @15°C	0.9944 g/cm ³	
Solubility(ies)		
Water solubility	Insoluble in water	
Kinematic viscosity 40°C	43.32 mm ² /s	
Kinematic viscosity 100°C	9.234 mm ² /s	
Dropping point	No information available	

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Strong oxidizing agents. Heat, flames and sparks.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

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

SECTION 11: Toxicological information

Information on likely routes of exposure

Product Information	No data available
INHALATION	No data available.
Eye contact	No data available.
Skin Contact	No data available.
INGESTION	No data available.

chemical name	Acute toxicity (LD50) -Oral-	Acute toxicity (LD50) -Dermall-	Inhalation LC50
TRICRESYL PHOSPHATE (meta,para isomer mixed) 1330-78-5	3 g/kg (Rat)	3700mg/kg	>11.1mg/L
2,6-Di-tert-butyl-p-cresol 128-37-0	-	>2000mg/kg bw	546mg/m ³
Phenol, nonyl-, phosphite (3:1) 26523-78-4	10000 mg/kg (Rat)	>2000mg/kg bw	-

Information on toxicological effects

Symptoms No information available.

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

skin corrosion/irritation No information available.
Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

chemical name	ACGIH	IARC	NTP	OSHA
2,6-Di-tert-butyl-p-cresol 128-37-0		Group 3		

*IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen*

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard Not classified.

Numerical measures of toxicity - Product Information

Unknown Acute toxicity 0.1% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

SECTION 12: Ecological information

Ecotoxicity

2.6% of the mixture consists of component(s) of unknown hazards to the aquatic environment

chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea

TRICRESYL PHOSPHATE (meta,para isomer mixed) 1330-78-5	-	0.21 - 0.32: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 3.3 - 6.2: 96 h Oncorhynchus mykiss mg/L LC50 static 0.1 - 0.22: 96 h Lepomis macrochirus mg/L LC50 flow-through 20.4 - 41.2: 96 h Lepomis macrochirus mg/L LC50 static 3.2 - 10: 96 h Oryzias latipes mg/L LC50 semi-static 4.8 - 6.4: 96 h Poecilia reticulata mg/L LC50 semi-static		
2,6-Di-tert-butyl-p-cresol 128-37-0	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50		
Phenol, nonyl-, phosphite (3:1) 26523-78-4		10: 96 h Brachydanio rerio mg/L LC50 static		0.42: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

SECTION 13: Disposal considerations
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Waste treatment methods**Disposal of wastes**

Improper disposal or reuse of this container may be dangerous and illegal.

Contaminated packaging

Do not reuse container.

chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Nonylphenols 25154-52-3		Included in waste stream: K060		

chemical name	California Hazardous Waste Status
POTASSIUM HYDROXIDE 1310-58-3	Toxic Corrosive

SECTION 14: Transport information
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DOT Not regulated**TDG** Not regulated**IATA** Not regulated**IMDG** Not regulated**ADR** Not regulated

IBC

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not regulated
 Proper shipping name Not regulated
 CATEGORY Not regulated

SECTION 15: Regulatory information**US 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 Hazard Categories

Acute health hazard No
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

chemical name	New Jersey	Massachusetts	Pennsylvania
TRICRESYL PHOSPHATE (meta,para isomer mixed) 1330-78-5	X		
2,6-Di-tert-butyl-p-cresol 128-37-0	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

International Inventories

ENCS Complies
 TSCA Complies
 EINECS/ELINCS Complies
 DSL Complies
 KECL Complies
 PICCS Complies
 China (IECSC) Complies
 Taiwan Complies

SECTION 16: Other information

NFPA Health hazards 0 Flammability 1 Instability 0 Physical and Chemical Properties -
HMIS Health hazards 0 Flammability 1 Physical hazards 0 Personal protection X

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Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet