

## SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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VERSION: 1.0

## 1. SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Trade name	ND-oil 8
Product code	-
SDS Number	4816
Product use	Professional use

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Compressor oil for air conditioning systems
Uses advised against	No additional information available.

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

DENSO Europe B.V.  
 Hogeweyselaan 165  
 1382 JL Weesp - Netherlands  
 T +31-294-493493 - F +31-294-417122  
[hse@rte.de](mailto:hse@rte.de)

### 1.4. Emergency telephone number

+31 (0)294 493 493 (Mo. - Fr. 08:30 - 17:00 CET)

## 2. SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008

<b>Health hazards</b>	Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
<b>Environmental hazards</b>	Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	Very toxic to aquatic life.
	Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411	Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008

#### Hazard pictograms



#### Signal word

Warning

#### Contains

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-.omega.-methoxy-; tris(nonylphenyl) phosphite

#### Hazard statements

H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

#### Precautionary statements

### Prevention

P261	Avoid breathing mist, vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves.

### Response

P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P362+P364	Take off contaminated clothing and wash it before reuse
P391	Collect spillage

### Supplemental hazard information

EUH205	Contains epoxy constituents. May produce an allergic reaction
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## 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

## 3. SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-.omega.-methoxy-	24991-61-5 680-480-1	50 - < 100	Skin Sens. 1, H317	
Tetradecyloxirane	7320-37-8 230-786-2	1 - < 10	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410	
Tris(methylphenyl) phosphate	1330-78-5 215-548-8	0.1 - < 3	Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	0.1 - < 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	
tris(nonylphenyl) phosphite	26523-78-4 247-759-6 015-202-00-4	0.1 - < 1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	

M: M-Factor

Full text of H-statements: see section 16

## 4. SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### Inhalation:

Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur.

#### Skin contact:

Wash with plenty of water/.... Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

#### Eyes contact

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms/effects after skin contact</b>	May cause an allergic skin reaction.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	
Treat symptomatically.	
<b>5. SECTION 5: Firefighting measures</b>	
<b>5.1. Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water spray. Dry powder. Foam. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>5.2. Special hazards arising from the substance or mixture</b>	
<b>Hazardous combustion products</b>	During fire, gases hazardous to health may be formed.
<b>5.3. Advice for firefighters</b>	
<b>Firefighting instructions</b>	Move containers from fire area if it can be done without personal risk.
<b>Protection during firefighting</b>	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
<b>6. SECTION 6: Accidental release measures</b>	
<b>6.1. Personal precautions, protective equipment and emergency procedures</b>	
<b>For non-emergency personnel</b>	
<b>Emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Ventilate spillage area. Wear appropriate protective equipment and clothing during clean-up. Local authorities should be advised if significant spillages cannot be contained.
<b>For emergency responders</b>	
<b>Protective equipment</b>	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
<b>6.2. Environmental precautions</b>	
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Avoid discharge into drains, water courses or onto the ground.	
<b>6.3. Methods and material for containment and cleaning up</b>	
<b>Methods for cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small spills: Take up liquid spill into absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
<b>Other information</b>	The product is immiscible with water and will spread on the water surface. Prevent entry into waterways, sewer, basements or confined areas.

**6.4. Reference to other sections** For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

## 7. SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Precautions for safe handling**

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing mist, vapours. Wear personal protective equipment. Protect material from direct sunlight. Observe good industrial hygiene practices.

**Hygiene measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions**

Store in a well-ventilated place. Keep cool. Store in original tightly closed container.

### 7.3. Specific end use(s)

Compressor oil for air conditioning systems.

## 8. SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

United Kingdom

Regulation	Substance	Type	Value
EH40. HSE	2,6-di-tert-butyl-p-cresol (128-37-0) 2,6-Di-tert-butyl-p-cresol	WEL TWA	10 mg/m <sup>3</sup>

**DNEL: Derived no effect level**

No data available

**PNEC: Predicted no effect concentration**

No data available

### 8.2. Exposure controls

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level

**Materials for protective clothing**

Wear suitable protective clothing.

**Individual protection measures, such as personal protective equipment (PPE)**

**Eye protection**

Safety glasses with side shields

**Skin protection**

**Hand protection**

Protective gloves.

Material	Permeation	Thickness (mm)	Comments
Nitrile rubber (NBR)	2 (> 30 minutes)	> 0.3	EN 374

**Other protective measures**

No additional information available.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment

**Thermal hazard protection**

Wear appropriate thermal protective clothing, when necessary.

**Environmental exposure controls**

Inform appropriate managerial or supervisory personnel of all environmental releases.

## 9. SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical state**

Liquid

Colour	Clear.
Odour	Characteristic.
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	204 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not applicable
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	0.9944 g/cm <sup>3</sup>
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	43.32 mm <sup>2</sup> /s @ 40°C 9.234 mm <sup>2</sup> /s @ 100°C
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

## 9.2. Other information

VOC (EU)	Not applicable
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## 10. SECTION 10: Stability and reactivity

10.1. Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid	None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met

<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met

## 12. SECTION 12: Ecological information

### 12.1. Toxicity

**Ecology - general** Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

#### Acute aquatic toxicity

Substance / Product	Trophic level	Species	Type	Value	Duration	Remarks
2,6-di-tert-butyl-p-cresol (128-37-0)	crustacea	Daphnia magna	EC50	0.48 mg/l	48 hours	
	Fish	Danio rerio	LC0	> 0.5 mg/l	96 hours	
Tetradecyloxirane (7320-37-8)	algae	Pseudokirc hnerella subcapitata	LC50	0,002 mg/l	72 h	(OECD 209 method)
tris(nonylphenyl) phosphite (26523-78-4)	crustacea	Daphnia magna	EC50	0,42 mg/l	48 h	
	Fish	Oncorhynchus mykiss (Rainbow trout)	LC50	0.21 - 0.32 mg/l,	96 hours	

### 12.2. Persistence and degradability

#### Tetradecyloxirane (7320-37-8)

**Biodegradation** 60 - 70 % (OECD 301B method)

### 12.3. Bioaccumulative potential

#### Tris(methylphenyl) phosphate (1330-78-5)

**Log Kow** 5.11

### 12.4. Mobility in soil

No additional information available.

### 12.5. Results of PBT and vPvB assessment

#### ND-oil 8

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

### 12.6. Other adverse effects

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

## 13. SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Regional legislation (waste)

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.

#### Waste treatment methods

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with licensed collector's sorting instructions.

<b>Product/Packaging disposal recommendations</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
<b>Additional information</b>	Dispose in accordance with all applicable regulations.
<b>Ecology - waste materials</b>	Avoid release to the environment.
<b>European List of Waste (LoW) code</b>	
13 02 08*	other engine, gear and lubricating oils
15 01 10*	packaging containing residues of or contaminated by dangerous substances

## 14. SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

<b>UN-No. (ADR)</b>	3082
<b>UN-No. (IMDG)</b>	3082
<b>UN-No. (IATA)</b>	3082
<b>UN-No. (ADN)</b>	3082
<b>UN-No. (RID)</b>	3082

### 14.2. UN proper shipping name

<b>Proper Shipping Name (ADR)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetradecyloxirane ; 2,6-di-tert-butyl-p-cresol)
<b>Proper Shipping Name (IMDG)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetradecyloxirane ; 2,6-di-tert-butyl-p-cresol)
<b>Proper Shipping Name (IATA)</b>	Environmentally hazardous substance, liquid, n.o.s. (Tetradecyloxirane ; 2,6-di-tert-butyl-p-cresol)
<b>Proper Shipping Name (ADN)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetradecyloxirane ; 2,6-di-tert-butyl-p-cresol)
<b>Proper Shipping Name (RID)</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetradecyloxirane ; 2,6-di-tert-butyl-p-cresol)

### 14.3. Transport hazard class(es)

<b>ADR</b>	
<b>Transport hazard class(es) (ADR)</b>	9
<b>Danger labels (ADR)</b>	9
<b>IMDG</b>	
<b>Transport hazard class(es) (IMDG)</b>	9
<b>Danger labels (IMDG)</b>	9
<b>IATA</b>	
<b>Transport hazard class(es) (IATA)</b>	9
<b>Hazard labels (IATA)</b>	9
<b>ADN</b>	
<b>Transport hazard class(es) (ADN)</b>	9
<b>Danger labels (ADN)</b>	9
<b>RID</b>	
<b>Transport hazard class(es) (RID)</b>	9
<b>Danger labels (RID)</b>	9

#### 14.4. Packing group

Packing group (ADR)	III
Packing group (IMDG)	III
Packing group (IATA)	III
Packing group (ADN)	III
Packing group (RID)	III

#### 14.5. Environmental hazards

Dangerous for the environment	Yes
Marine pollutant	Yes
Other information	No supplementary information available.

#### 14.6. Special precautions for user

##### Overland transport

Classification code (ADR)	M6
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5I
Packing instructions (ADR)	P001, IBC03, LP01, R001
Hazard identification number (Kemler No.)	90

##### Transport by sea

Special provisions (IMDG)	274, 335, 969
Limited quantities (IMDG)	5 L
Packing instructions (IMDG)	P001, LP01
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A

##### Air transport

PCA Excepted quantities (IATA)	E1
PCA Limited quantities (IATA)	Y964
PCA limited quantity max net quantity (IATA)	30kgG
PCA packing instructions (IATA)	964
PCA max net quantity (IATA)	450L
CAO packing instructions (IATA)	964
CAO max net quantity (IATA)	450L
Special provisions (IATA)	A97, A158, A197
ERG code (IATA)	9L

##### Inland waterway transport

Classification code (ADN)	M6
Special provisions (ADN)	274, 335, 375, 601
Limited quantities (ADN)	5 L
Carriage permitted (ADN)	T

##### Rail transport

Classification code (RID)	M6
Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5L
Packing instructions (RID)	P001, IBC03, LP01, R001
Hazard identification number (RID)	90



#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

### 15. SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006

2,6-di-tert-butyl-p-cresol - Tetradecyloxirane - tris(nonylphenyl) phosphite - Tris(methylphenyl) phosphate	3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
Tetradecyloxirane - tris(nonylphenyl) phosphite - Tris(methylphenyl) phosphate	3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
tris(nonylphenyl) phosphite	3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

##### VOC (EU)

Not applicable

##### Other information, restriction and prohibition regulations

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended. Directive 94/33/EC on the protection of young people at work, as amended. For details, refer to section 3 and 8.

##### Seveso Information

E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

##### National regulations

No additional information available.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### 16. SECTION 16: Other information

#### Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.
IATA	International Air Transport Association.
IMDG	International Maritime Dangerous Goods.
PBT	Persistent Bioaccumulative Toxic.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail.
SDS	Safety Data Sheet.
vPvB	Very Persistent and Very Bioaccumulative.
DNEL	Derived-No Effect Level.
PNEC	Predicted No-Effect Concentration.
OEL	Occupational Exposure Limit.
ATE	Acute Toxicity Estimate.
BCF	Bioconcentration factor.

DMEL	Derived Minimal Effect level.
EC50	Median effective concentration.
IARC	International Agency for Research on Cancer.
LC50	Median lethal concentration.
LD50	Median lethal dose.
LOAEL	Lowest Observed Adverse Effect Level.
NOAEC	No-Observed Adverse Effect Concentration.
NOAEL	No-Observed Adverse Effect Level.
NOEC	No-Observed Effect Concentration.
OECD	Organisation for Economic Co-operation and Development.
STP	Sewage treatment plant.
TLM	Median Tolerance Limit.
RRN	REACH Registration no..
CAO	Cargo Aircraft Only.
PCA	Passenger and Cargo Aircraft.

**Data sources** REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006..

**Training advice** Normal use of this product shall imply use in accordance with the instructions on the packaging

#### Full text of H- and EUH-statements

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1.
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1.
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2.
Repr. 2	Reproductive toxicity, Category 2.
Skin Irrit. 2	Skin corrosion/irritation, Category 2.
Skin Sens. 1	Skin sensitisation, Category 1.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

#### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

*The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.*