

SAFETY DATA SHEET

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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VERSION: 1.2

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

1.1. Product identifier

Product form : Mixture
 Trade name : ND OIL-11
 Product code : 8392
 SDS Number : 8392
 UFI : MV40-T17P-M00J-EFHU
 Product use : Professional use

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

1.2.1. Relevant identified uses

Function or use category : Lubricant

1.2.2. Uses advised against

Restrictions on use : None known

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
 EU_DNEU_MSDS_info@eu.denso.com
 www.denso-am.eu

1.4. Emergency telephone number

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

+44 111 (England, Scotland, Wales 24/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Health hazards	Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
	Germ cell mutagenicity, Category 2	H341	Suspected of causing genetic defects.
Environmental hazards	Hazardous to the aquatic environment –	H412	Harmful to aquatic life with long lasting effects.
	Chronic Hazard, Category 3		

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms



Signal word

Warning

Contains

2,3-epoxypropyl neodecanoate

Hazard statements

H317

May cause an allergic skin reaction.

H341

Suspected of causing genetic defects.

H412

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P272

Contaminated work clothing should not be allowed out of the workplace.

P273

Avoid release to the environment.

P280

Wear protective gloves.

P201

Obtain special instructions before use.

Response

P308+P313

IF exposed or concerned: Get medical advice/attention.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

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.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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 [CLP]	Notes
2,3-epoxypropyl neodecanoate	26761-45-5 247-979-2 -	1 - < 2,5	Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411	
Tris(methylphenyl) phosphate	1330-78-5 215-548-8	1 - < 2,5	Repr. 2, H361 Aquatic Acute 1, H400 (M=1.0) Aquatic Chronic 1, H410 (M=1.0)	
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4 01-2119565113-46-XXXX	0,25 - < 1	Aquatic Acute 1, H400 (M=1.0) Aquatic Chronic 1, H410 (M=1.0)	

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

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

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Immediately call a POISON CENTER/doctor. Rinse mouth thoroughly. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Alcohol resistant foam. carbon dioxide (CO ₂). Dry chemical. Water spray.
Unsuitable extinguishing media	: Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Do not discharge into drains or the environment.
Hazardous decomposition products in case of fire	: During fire, gases hazardous to health may be formed. Phosphorus oxides. Carbon oxides (CO, CO ₂).

5.3. Advice for firefighters

Precautionary measures fire	: Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Firefighting instructions	: Use standard firefighting procedures and consider the hazards of other involved materials.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Evacuate area. Move containers from fire area if it can be done without personal risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear appropriate protective equipment and clothing during clean-up. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: 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.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Keep unnecessary personnel away. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak without risks if possible. Move containers from fire area if it can be done without personal risk.
Methods for cleaning up	: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

Other information : Dispose of materials or solid residues at an authorized site.

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".

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. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original tightly closed container. Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store away from incompatible materials (see Section 10 of the SDS).

Incompatible materials : Strong oxidizing agent.

7.3. Specific end use(s)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

2,6-di-tert-butyl-p-cresol (128-37-0)

United Kingdom - Occupational Exposure Limits

Local name	2,6-Di-tert-butyl-p-cresol
WEL TWA (OEL TWA) [1]	10 mg/m ³
Regulatory reference	EH40. HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

2,6-di-tert-butyl-p-cresol (128-37-0)

PNEC (Water)

PNEC aqua (freshwater)	0.199 µg/L
PNEC aqua (marine water)	0.02 µg/L

PNEC (Sediment)

PNEC sediment (freshwater)	99.6 µg/kg
PNEC sediment (marine water)	9.96 µg/kg

PNEC (Soil)

PNEC soil	47.69 µg/kg
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PNEC (Oral)

PNEC oral (secondary poisoning)	8.33 mg/kg
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PNEC (STP)

PNEC sewage treatment plant	0.17 µg/L
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8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering 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.

8.2.2. Personal protection equipment

Personal protective equipment:

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side shields. EN 166.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Long sleeved protective clothing

Hand protection:

Protective gloves. Butyl rubber. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove

Other skin protection

Materials for protective clothing:

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 141. EN 14387

Respiratory protection

Device	Filter type	Condition	Standard
	Type A - High-boiling (>65 °C) organic compounds		

8.2.2.4. Thermal hazards

Thermal hazard protection:

Wear appropriate thermal protective clothing, when necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Inform appropriate managerial or supervisory personnel of all environmental releases.

Other information:

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light yellow.
Odour	: slight.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive properties	: Not applicable.

Oxidising properties	: Not applicable.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 200 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Pour point	: -35 °C
pH	: Not applicable
Viscosity, kinematic	: > 20.5 mm ² /s @40°C
Solubility	: insoluble in water.
Log Kow	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 0.98 @ 15°C
Relative vapour density at 20°C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC (EU) : Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable and 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

Contact with incompatible materials. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Can react with. Strong oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Based on available data, the classification criteria are not met
Acute toxicity (dermal)	: Based on available data, the classification criteria are not met
Acute toxicity (inhalation)	: Based on available data, the classification criteria are not met

Skin corrosion/irritation	: Based on available data, the classification criteria are not met pH: Not applicable
Serious eye damage/irritation	: Based on available data, the classification criteria are not met pH: Not applicable
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Based on available data, the classification criteria are not met
STOT-single exposure	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Based on available data, the classification criteria are not met
Aspiration hazard	: Based on available data, the classification criteria are not met

ND OIL-11

Viscosity, kinematic	> 20.5 mm ² /s @40°C
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Based on available data, the classification criteria are not met
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

2,6-di-tert-butyl-p-cresol (128-37-0)

EC50 - Crustacea [1]	1.44 ml/l Not rapidly degradable
LC0, Fish, acute, algae	0.31 g/l

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

LC50 - Fish [1]	0.21 – 0.32 Oncorhynchus mykiss
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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

Log Kow	5.11
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

ND OIL-11

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. Endocrine disrupting properties

No additional information available

12.7. 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
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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.
Product/Packaging disposal recommendations	: 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.
Additional information	: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not contaminate ponds, waterways or ditches with chemical or used container.
European List of Waste (LoW) code	: The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. 13 02 08* - other engine, gear and lubricating oils 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID
Not regulated for transport

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(b)	ND OIL-11 ; Tris(methylphenyl) phosphate ; 2,3-epoxypropyl neodecanoate
3(c)	ND OIL-11 ; 2,6-di-tert-butyl-p-cresol ; Tris(methylphenyl) phosphate ; 2,3-epoxypropyl neodecanoate
Contains no substance(s) listed on the REACH Candidate List	
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)	
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)	
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)	
VOC content	: 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 92/85/EEC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding as amended. Directive 94/33/EC on the protection of young people at work, as amended. For details, refer to section 3 and 8.

Directive 2012/18/EU (SEVESO III)

Seveso Additional information : Not applicable.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Regulatory 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

ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
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
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
SDS	Safety Data Sheet
OEL	Occupational Exposure 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
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
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.
H412	Harmful to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

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

Skin Sens. 1	H317	Calculation method
Muta. 2	H341	Calculation method
Aquatic Chronic 3	H412	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.