

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment
Regulation (EU) 2020/878

ISSUE DATE: 12.03.2021

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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-11
Product code	8392
SDS Number	8392
Product use	Professional use

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

Relevant identified uses

Use of the substance/mixture	Lubricant
Uses advised against	No additional information available.

1.3. Details of the supplier of the safety data sheet

Distributor

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

POISON CONTROL CENTER CHARITÉ - UNIVERSITÄTSMEDIZIN BERLIN
www.giftnotruf.de
+49 30 30686700 (24 h)

2. SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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 — Chronic Hazard, Category 3	H412	Harmful 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	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/protective clothing/eye protection/face protection/hearing protection.
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.

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

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 skin 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.

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.

5. SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Alcohol resistant foam. carbon dioxide (CO₂). 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 combustion products During fire, gases hazardous to health may be formed. Phosphorus oxides. Carbon oxides (CO, CO₂).

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.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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.

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".

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. 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.

Storage class (LGK, TRGS 510) LGK 10 - Combustible liquids

7.3. Specific end use(s) Lubricant.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Germany - TRGS900

Regulation	Substance	Type	Value
TRGS900	2,6-di-tert-butyl-p-cresol (128-37-0)	AGW (OEL TWA) [1]	10 mg/m ³ E (mg/m ³)
		AGW (OEL C)	40 mg/m ³ 15 minutes reference period
	2,6-Di-tert-butyl-p-cresol	Remark	DFG,Y,11, AGS

DNEL: Derived no effect level

No data available

PNEC: Predicted no effect concentration

No data available

Components	Type	Route	Value	Form
2,6-di-tert-butyl-p-cresol (128-37-0)	Not applicable	Freshwater	0.199 µg/L	
		Seawater	0.02 µg/L	
		sediment	99.6 µg/kg	Freshwater
		sediment	9.96 µg/kg	Seawater
		Soil	47.69 µg/kg	
		Oral	8.33 mg/kg	Secondary Poisoning
		STP	0.17 µg/L	

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

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

Eye protection	Safety glasses with side shields. EN 166.		
Skin protection			
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 protective 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.		
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. EN 141. EN 14387		
Device	Filter type	Condition	Comments
	Type A - High-boiling (>65 °C) organic compounds		
Skin and body protection	Wear suitable protective clothing, Long sleeved protective clothing		
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	light yellow.
Odour	slight.
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Pour point	-35 °C
Freezing point	No data available
Boiling point	No data available
Flash point	200 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	0.98 @ 15°C
Solubility	insoluble in water.
Log Pow	No data available
Viscosity, kinematic	No data available
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 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.

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	Not classified.
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	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

12. 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)

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	
Tris(methylphenyl) phosphate (1330-78-5)	Fish	Oncorhynchus mykiss	LC50	0.21 - 0.32 mg/l,	96 hours	
		(Rainbow trout)				

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.

ND OIL-11

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

12.6. Other adverse effects

No additional information available.

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.
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

14. SECTION 14: Transport information

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

Not regulated for transport

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

ND OIL-11 ; Tris(methylphenyl) phosphate ; 2,3-epoxypropyl neodecanoate	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
ND OIL-11 ; 2,6-di-tert-butyl-p-cresol ; Tris(methylphenyl) phosphate ; 2,3-epoxypropyl neodecanoate	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
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 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.

Seveso Information

Not applicable.

National regulations

Regulatory reference	WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
Employment restrictions	Observe restrictions according Act on the Protection of Working Mothers (MuSchG) Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
Hazardous Incident Ordinance (12. BImSchV)	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

16. SECTION 16: Other information

Indication of changes

None.

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
AGW	Occupational exposure limit value
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Federal Institute for Materials Research and Testing, Germany
BAT	Maximum permissible concentration of biological working substances.
BCF	Bio-concentration factor.
BLV	Biological limit values
BLV	Biological limit values (BGW, Austria)
BMGV	Biological Monitoring Guidance Value (EH40,UK).
BOD5	Biochemical oxygen demand within 5 days
BOD	Biochemical oxygen demand
bw	Body weight.
calcd.	Calculated
CAS	Chemical Abstract Service.
CEN	European Committee for Standardization
CESIO	European Committee on Organic Surfactants and their Intermediates.
COD	Chemical oxygen demand
CLP	Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR	Carcinogenic, Mutagenic or Reproduction Toxic Substances
CSA	Chemical safety assessment
CSR	Chemical Safety Report.
DMEL	Derived Minimum Effect Level.
DNEL	Derived no effect level
EAC	European waste catalogue
EC	European community
EC50	Effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EN	European norm.
ERC	ERC (Environmental Release category)

EU	European Union
GLP	Good Laboratory Practice.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
GW/VL	Occupational exposure limit value.
GW-kw/VL-cd	Occupational exposure limit value - short term.
GW-M/VL-M	Occupational exposure limit value – "Ceiling".
IATA	International Air Transport Association
IBC code	International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
ICAO	International Civil Aviation Organization
IC50	Inhibition Concentration 50%.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods
ISO	International Standards Organization.
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal Concentration 50%.
LCLo	Lowest published lethal concentration.
LD50	Lethal Dose 50%.
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest observable effect concentration.
LOEL	Lowest observable effect level.
LQ	Limited quantities
TRK-Kzw	Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value, Austria.
MAK-Mow	Maximum allowable workplace concentration – instantaneous value, Austria.
MAK-Tmw, TRK-Tmw	Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value, Austria.
MAK	Threshold limit values Germany.
MARPOL	International Convention for the Prevention of Pollution from Ships.
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
NOEL	no-observed-effect level
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limits
PBT	Persistent Bioaccumulative Toxic
PC (Chemical product category)	PC (Chemical product category)
PNEC	Predicted No-Effect Concentration
POCP	Photochemical ozone creation potential.
POP	Persistent Organic Pollutants
PPE	Personal protective equipment
Process category	Process category
REACH	Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific concentration limit.

STEL	Short-term Exposure Limit
STP	Sewage treatment plant
SU (Sector of use)	SU (Sector of use)
SVHC	Substance of Very High Concern.
TLV	Threshold Limit Value
TRGS	Technical Rules for Hazardous Substances (German Standard).
TWA	Time Weighted Average
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
VbF	Ordinance on Flammable Liquids, Austria
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL-TWA	Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
WEL-STEL	Workplace Exposure Limit-Short term exposure limit (15-minute reference period).

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.
Muta. 2	Germ cell mutagenicity, Category 2.
Repr. 2	Reproductive toxicity, Category 2.
Skin Sens. 1	Skin sensitisation, Category 1.
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..

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.