#### SAFETY DATA SHEET

DENSO

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

ISSUE DATE: 22.10.2018 REVISION DATE: 01.03.2021 SUPERSEDES DATE: 30.10.2019 VERSION: 3.0

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

1.1. Product identifier

Trade name	ND-OIL12
Product code	2681
SDS Number	2681
Product use	Professional use

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

Relevant identified usesCompressor oil for air conditioning systemsUses advised againstNone 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)

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

Hazard statements

H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	
P273	Avoid release to the environment.
P280	Wear protective gloves.
Response	
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.
Supplemental hazard information	
EUH205	Contains epoxy constituents. May produce an allergic reaction.

#### 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 methylomegamethoxy-	24991-61-5 680-480-1 -	50 - < 100	Skin Sens. 1, H317	
decyloxirane	2855-19-8 220-667-3 01-2119943390-42- XXXX	1-<2	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410	
dodecyloxirane	3234-28-4 221-781-6 01-2119943387-29- XXXX	1-<2	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	
Hexadec-1-ene	629-73-2 211-105-8 01-2119474686-23- XXXX	1 - < 2	Asp. Tox. 1, H304	
Tris(methylphenyl) phosphate	1330-78-5 809-930-9 01-2119531335-46- XXXX	0,1 - < 1	Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4 01-2119565113-46- XXXX	0,1 - < 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
tris(nonylphenyl) phosphite	26523-78-4 701-028-2 - 01-2119520601-54- XXXX	0.1 - < 1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	substance listed as REACH Candidate

#### 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. Call a physician if symptoms develop or persist.
Skin contact:	Wash skin with plenty of water and soap. 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	Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Never give anything by mouth to an unconscious person.

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

Symptoms/effects after skin contact May cause an allergic skin reaction.

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

Treat symptomatically.

#### 5. SECTION 5: Firefighting measures

#### 5.1. Extinguishing media Suitable extinguishing media Water spray. Dry powder. Carbon dioxide. Foam.

## Suitable extinguishing mediawater spray. Dry powder. Carbon dioxide. Foam.Unsuitable extinguishing mediaDo not use water jet as an extinguisher, as this will spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

	Hazardous combustion products	During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO2).
5.3.	Advice for firefighters	
	Firefighting instructions	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire-fighting to enter drains or water courses.
	Protection during firefighting	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### 6. SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

# Protective equipment Wear recommended personal protective equipment. For personal protection, see section 8 of the SDS.

	Emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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	Wear recommended personal protective equipment. For personal protection, see section 8 of the SDS.
	Emergency procedures	Keep unnecessary personnel away.
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. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

#### 6.3. Methods and material for containment and cleaning up

	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	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
   Hygiene measures
   Ensure good ventilation of the work station. Wear personal protective equipment.
   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
   Years and difference of the storage of the stora
- Storage conditionsKeep cool. Protect from sunlight. Store in a dry place. Store in a closed<br/>container.7.3.Specific end use(s)Compressor oil for air conditioning systems.

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

#### 8.1. Control parameters

Regulation S	Substance		Туре	Value	
(	2, <b>6-di-tert-butyl-p</b> <b>128-37-0)</b> 2,6-Di-tert-butyl-p-		WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup>	
DNEL: Derived no effect	level				
No data available					
Components	Туре	Route	Value		Form
decyloxirane (2855-19-8)	Worker	Dermal	10.4 mg/kg bodyweight/day	1	Long-term - systemic effects
		Inhalation	36.7 mg/m <sup>3</sup>		Long-term - systemic effects
	Consumer	Oral	6.25 mg/kg bodyweight/day	/	Long-term - systemic effects
		Inhalation	10.9 mg/m <sup>3</sup>		Long-term - systemic effects
ode: 2681		GB - en	Re	vision date: 3/	1/2021 4/14

	Dermal	8.35 mg/kg bodyweight/day	Long-term - systemic effects
2.C. di tart hutul a aragal Markar	Dermel		l en temp evetenic effecte
2,6-di-tert-butyl-p-cresol Worker (128-37-0)	Dermal	0.5 mg/kg bodyweight/day	Long-term - systemic effects
, , , , , , , , , , , , , , , , , , ,	Inhalation	3.5 mg/m <sup>3</sup>	Long-term - systemic effects
Consumer	Oral	0.25 mg/kg bodyweight/day	Long-term - systemic effects
	Inhalation	0.86 mg/m <sup>3</sup>	Long-term - systemic effects
	Dermal	0.25 mg/kg bodyweight/day	Long-term - systemic effects
Tris(methylphenyl) Worker	Dermal	0.41 mg/kg bodyweight/day	Long-term - systemic effects
phosphate (1330-78-5)	Inhalation	0.18 mg/m <sup>3</sup>	Long-term - systemic effects
Consumer	Oral	0.02 mg/kg bodyweight/day	Long-term - systemic effects
Scheamer	Inhalation	0.03 mg/m <sup>3</sup>	Long-term - systemic effects
	Dermal	0.15 mg/kg bodyweight/day	Long-term - systemic effects
DNEC: Dradieted as effect construction		o. To myrky bodyweiginiudy	Long-term - systemic dilects
PNEC: Predicted no effect concentration	n		
	Devite	Malaa	<b>F</b>
Components Type	Route	Value	Form

Components	туре	Route	value	FORM
decyloxirane (2855-19-8)	Not applicable	Freshwater	0.171 µg/L	
		Seawater	0.017 µg/L	
		Freshwater	1.71 µg/L	Intermittent release
		STP	3.6 mg/l	
dodecyloxirane (3234-28-4)	Not applicable	Freshwater	0.002 µg/L	
		Seawater	0 µg/L	
		Freshwater	0.024 µg/L	Intermittent release
		STP	2.61 mg/l	
tris(nonylphenyl) phosphite	Not applicable	Freshwater	50 µg/L	
(26523-78-4)		Seawater	50 µg/L	
		Freshwater	50 mg/l	Intermittent release
		sediment	0.15 mg/kg dwt	Freshwater
		sediment	0.15 mg/kg dwt	Seawater
		Oral	37 mg/kg food	Secondary Poisoning
		STP	1.8 mg/l	
2,6-di-tert-butyl-p-cresol	Not applicable	Freshwater	0.199 µg/L	
(128-37-0)		Seawater	0.02 µg/L	
		Freshwater	1.99 mg/l	Intermittent release
		sediment	99.6 µg/kg dw	Freshwater
		sediment	9.96 µg/kg dw	Seawater
		Soil	47.69 µg/kg	
de: 2681		GB - en		Revision date: 3/1/2021 5/14

			Oral STP	8.33 mg/kg food 0.17 mg/l	Secondary Poisoning	
	Hexadec-1-ene (629-73-2	2) Not applicable	Freshwater	0.001 mg/l		
			Seawater	0.001 mg/l		
			Freshwater	0.001 mg/l	Intermittent release	
			sediment	426.58 mg/kg dwt	Freshwater	
			sediment	426.58 mg/kg dwt	Seawater	
			Soil	85.3 mg/kg dwt		
	Tris(methylphenyl)	Not applicable	Freshwater	0.001 mg/l		
	phosphate (1330-78-5)		Freshwater	0.001 mg/l	Intermittent release	
			sediment	2.05 mg/kg dwt	Freshwater	
			sediment	0.205 mg/kg dwt	Seawater	
			Soil	1.01 mg/kg dwt		
			Oral	0.65 mg/kg food	Secondary Poisoning	
			STP	100 mg/l		
8.2.	Exposure controls					
	Appropriate engineering controls Materials for protective clothing		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 Personal protective equipment should be chosen according to the CEN standards			
	Materials for protective	ciotining	and in discussion with the supplier of the protective equipment			
	Individual protection m	easures, such as pe	ersonal protective equipment (PPE)			
	Eye protection		EN 166. Safety glasses with side shields			
	Skin protection					
	Hand protection		Protective gloves. EN 374. 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			
		Permeation	Thickness (r			
	Nitrile rubber (NBR)	2 (> 30 minutes)	> 0.3	EN ISO 374		
	Other protective me	easures	Wear suitable protective clothing.			
	Respiratory protection Skin and body protection		Not normally needed. In case of insufficient ventilation, wear suitable respiratory equipment. Filter type: A-P2			
			No additional information available.			
	Thermal hazard protect	ion	Wear appropriate thermal protective clothing, when necessary.			
	Environmental exposure controls		Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases.			
	Consumer exposure co	ntrols	handling the	material and before eating	e measures, such as washing after g, drinking, and/or smoking. Routinely pment to remove contaminants.	

## 9. SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear.
Colour	light yellow.
Odour	Characteristic.
Odour threshold	No data available
рН	No data available
Relative evaporation rate (butylacetate=1)	No data available

	Melting point	No data available
	Pour point	-40 °C
	Freezing point	No data available
	Boiling point	No data available
	Flash point	182 °C Open cup
	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	No data available
	Density	0.985 g/cm³ @ 15°C
	Solubility	insoluble in water.
	Log Pow	No data available
	Viscosity, kinematic	39.45 mm²/s @ 40°C 9.079 mm²/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
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	No flames, no sparks. Eliminate all sources of ignition. Refer to Section 10 on Incompatible Materials.
10.5.	Incompatible materials	Strong oxidizing agents. Strong bases.
10.6.	Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. SECTION 11: Toxicological information

1.1. Informa	Information on toxicological effects				
Acute to	oxicity	Based on available data, the classification criteria are not met.			
Skin co	rrosion/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.			
Respira	tory or skin sensitisation	May cause an allergic skin reaction.			
Germ ce	ell mutagenicity	Based on available data, the classification criteria are not met			
Carcino	genicity	Based on available data, the classification criteria are not met			
Reprodu	uctive toxicity	Based on available data, the classification criteria are not met			
STOT-s	ngle exposure	Based on available data, the classification criteria are not met			
STOT-re	epeated exposure	Based on available data, the classification criteria are not met			
Aspirati	on hazard	Based on available data, the classification criteria are not met			

Potential adverse human health effects Occupational exposure to the substance or mixture may cause adverse effects. and symptoms

## 12. SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects
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#### Hazardous to the aquatic environment, short-term (acute)

Trophic level algae	Species Pseudokirc	Туре	Value	Duration	Remarks
algae	Deoudokiro				
	hnerella subcapitat a	EC50	0.52 mg/l	72 hours	(OECD 201 method)
crustacea	Daphnia magna	EC50	0.171 mg/	48 hours	(OECD 202 method)
algae	Pseudokirc hnerella subcapitat a	EC50	0.002 mg/	I 72 hours	(OECD 201 method)
crustacea	Daphnia magna	EC50	0.42 mg/l	48 h	
crustacea	Daphnia magna	EC50	0.3 mg/L	48 h	
crustacea	Daphnia magna	EC50	0.48 mg/l	48 h	
Fish	Danio rerio	LC0	> 0.5 mg/l	96 h	
Fish	Oncorhync hus mykiss (Rainbow trout)	LC50	0.6 mg/l	96 hours	
aquatic invertebrates	Daphnia magna	EC50	146 µg/L	48 h	
c environment, lo	ng-term (chr	onic)			
Trophic level	Species	Туре	Value	Duration	Remarks
algae	Pseudokirc hnerella subcapitat a	NOEC	0.002 mg/l	72 hours	
aquatic invertebrates	Daphnia magna	NOEC	0,1 mg/L	21 d	
adability					
)					
	60 – 70 %	28 d (OE	CD 301 B)		
8-4)					
	60 – 70 %	OECD 3	01 B)		
i	algae crustacea crustacea crustacea Fish Fish aquatic invertebrates <b>c environment, lo</b> <b>Trophic level</b> algae aquatic invertebrates <b>adability</b>	subcapitat a crustacea Daphnia magna algae Pseudokirc hnerella subcapitat a crustacea Daphnia magna crustacea Daphnia magna crustacea Daphnia magna crustacea Daphnia magna fish Danio rerio Fish Danio rerio Fish Oncorhync hus mykiss (Rainbow trout) aquatic Daphnia magna <b>c environment, Iong-term (chr Trophic level Species</b> algae Pseudokirc hnerella subcapitat a aquatic Daphnia magna <b>c environment, Iong-term (chr</b> <b>Trophic level Species</b> algae Pseudokirc hnerella subcapitat a aquatic magna	subcapitat a crustacea Daphnia EC50 magna EC50 hnerella subcapitat a crustacea Daphnia EC50 magna EC50 hus mykiss (Rainbow trout) aquatic Daphnia EC50 magna EC50 mag	subcapitat a crustacea Daphnia EC50 0.171 mg/ magna EC50 0.002 mg/ hnerella subcapitat a crustacea Daphnia EC50 0.42 mg/l magna EC50 0.3 mg/L magna Crustacea Daphnia EC50 0.3 mg/L magna EC50 0.48 mg/l magna EC50 0.6 mg/l hus mykiss (Rainbow trout) aquatic Daphnia EC50 146 µg/L magna EC50 0.002 hnerella magna mg/l subcapitat a aquatic Daphnia NOEC 0.002 hnerella magna aquatic Daphnia NOEC 0.1 mg/L magna MOEC 0.1 mg/L	subcapitat a crustacea Daphnia EC50 0.171 mg/l 48 hours magna algae Pseudokirc EC50 0.002 mg/l 72 hours hnerella subcapitat a crustacea Daphnia EC50 0.42 mg/l 48 h magna Crustacea Daphnia EC50 0.3 mg/L 48 h magna Crustacea Daphnia EC50 0.48 mg/l 48 h magna Crustacea Daphnia EC50 0.48 mg/l 48 h magna Crustacea Daphnia EC50 0.48 mg/l 48 h magna Crustacea Daphnia EC50 0.6 mg/l 96 h Fish Danio rerio LC0 > 0.5 mg/l 96 h Fish Danio rerio LC0 > 0.5 mg/l 96 h Fish Oncorhync LC50 0.6 mg/l 96 hours hus mykiss (Rainbow trout) EC50 146 µg/L 48 h aquatic Daphnia EC50 146 µg/L 48 h invertebrates magna Crustacea Daphnia EC50 146 µg/L 48 h aquatic Daphnia NOEC 0.002 72 hours hnerella subcapitat a aquatic Daphnia NOEC 0.11 mg/L 21 d magna Crustacea Daphnia NOEC 0.11 mg/L 21 d hnerella subcapitat a aquatic Daphnia NOEC 0.11 mg/L 21 d hnerella subcapitat a aquatic Daphnia NOEC 0.11 mg/L 21 d hnerella subcapitat a

## 12.3.

decyloxirane (2855-19-8)		
5.9 @ 25 °C		
5.77 @ 25 °C		
Tris(methylphenyl) phosphate (1330-78-5)		
5.11		

12.2.

#### 12.4. Mobility in soil

No additional information available.

#### 12.5. Results of PBT and vPvB assessment

#### ND-OIL12

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.			
	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	Dispose in accordance with all applicable regulations.			
	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

#### 14.1. UN number

UN-No. (ADR)	3082
UN-No. (IMDG)	3082
UN-No. (IATA)	3082
UN-No. (ADN)	3082
UN-No. (RID)	3082

14.2. UN proper shipping name

Proper Shipping Name (ADR)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Decyloxirane ; Dodecyloxirane)
Proper Shipping Name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Decyloxirane ; Dodecyloxirane)
Proper Shipping Name (IATA)	Environmentally hazardous substance, liquid, n.o.s. (Decyloxirane ; Dodecyloxirane)
Proper Shipping Name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Decyloxirane ; Dodecyloxirane)
Proper Shipping Name (RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Decyloxirane ; Dodecyloxirane)

14.3.	Transport hazard class(es)	
	ADR	
	Transport hazard class(es) (ADR)	9
	Danger labels (ADR)	9
	IMDG	
	Transport hazard class(es) (IMDG)	9
	Danger labels (IMDG)	9
	ΙΑΤΑ	
	Transport hazard class(es) (IATA)	9
	Hazard labels (IATA)	9
	ADN	
	Transport hazard class(es) (ADN)	9
	Danger labels (ADN)	9
	RID	
	Transport hazard class(es) (RID)	9
	Danger labels (RID)	9
14.4.	Packing group	
	Packing group (ADR)	III
	Packing group (IMDG)	III
	Packing group (IATA)	III
	Packing group (ADN)	III
	Packing group (RID)	111
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, 601, 375
	Limited quantities (ADR)	51
	Packing instructions (ADR) Hazard identification number (Kemler No.)	P001, IBC03, LP01, R001 90
	Tunnel restriction code (ADR)	-
	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)	Т
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.
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## 15. SECTION 15: Regulatory information

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

#### **EU-Regulations**

IBC code

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

The following restrictions are applicable ac	cording to Annex Avii of the REACH Regulation (EC) No 1307/2000
ND-OIL12 ; decyloxirane ; dodecyloxirane ; tris(nonylphenyl) phosphite ; Hexadec-1-ene ; Tris(methylphenyl) phosphate ; 1H- Benzotriazole-1-methanamine, N,N-bis(2- ethylhexyl)-5-methyl-	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-OIL12 ; decyloxirane ; dodecyloxirane ; tris(nonylphenyl) phosphite ; 2,6-di-tert-butyl- p-cresol ; Tris(methylphenyl) phosphate ; 1H- Benzotriazole-1-methanamine, N,N-bis(2- ethylhexyl)-5-methyl-	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
Poly[oxy(methyl-1,2-ethanediyl)], .alpha methylomegamethoxy- ; tris(nonylphenyl) phosphite ; 1H-Benzotriazole-1- methanamine, N,N-bis(2-ethylhexyl)-5- methyl- ; N,N-bis(2-ethylhexyl)-4-methyl-1H- benzotriazole-1-methylamine	72. The substances listed in column 1 of the Table in Appendix 12
	e list in concentration $\ge$ 0.1% or with a lower specific limit: Tris(4-nonylphenyl, 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) (EC 701-028-2, CAS
Contains no REACH Annex XIV substances	
VOC (EU)	Not applicable
Other information, restriction and prohibition regulations	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. 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. For details, refer to section 3 and 8.

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

#### Seveso Information National regulations

No additional information available.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### 16. SECTION 16: Other information

Information on ingred	lients.
Abbreviations and a	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-stater	nents
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.
Asp. Tox. 1	Aspiration hazard, Category 1.
Repr. 2	Reproductive toxicity, Category 2.
Skin Irrit. 2	Skin corrosion/irritation, Category 2.
Skin Sens. 1	Skin sensitisation, Category 1.
H304	May be fatal if swallowed and enters airways
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 [CLP]	used to derive the classification for mixtures according to Regulation (EC) 1272/2008

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.