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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 07.04.2022 / 0004

Replacing version dated / version: 01.11.2021 / 0003

Valid from: 07.04.2022 PDF print date: 16.05.2025 Top Tec 4110 5W-40

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

1.1 Product identifier

Top Tec 4110 5W-40

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

Grease

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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LIQUI MOLY GmbH Jerg-Wieland-Str. 4 89081 Ulm-Lehr Tel.: (+49) 0731-1420-0

Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

(GB)

Landspitali- The National University Hospital of Iceland, tel. +354 543 2222 or 112 (valid only for Iceland)

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

+1 872 5888271 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



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EUH208-Contains C14-16-18 Alkylphenol. May produce an allergic reaction.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a. 3.2 Mixtures

Distillates (petroleum), hydrotreated heavy paraffinic	
Registration number (REACH)	01-2119484627-25-XXXX
Index	649-467-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	265-157-1
CAS	64742-54-7
content %	30-<50
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	
Registration number (REACH)	01-2119474889-13-XXXX
Index	649-483-00-5
EINECS, ELINCS, NLP, REACH-IT List-No.	276-738-4
CAS	72623-87-1
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	
Registration number (REACH)	01-2119474878-16-XXXX
Index	649-482-00-X
EINECS, ELINCS, NLP, REACH-IT List-No.	276-737-9
CAS	72623-86-0
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

Distillates (petroleum), solvent-dewaxed light paraffinic	
Registration number (REACH)	01-2119480132-48-XXXX
Index	649-469-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	265-159-2
CAS	64742-56-9
content %	<3
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Asp. Tox. 1, H304

C14-16-18 Alkylphenol	
Registration number (REACH)	01-2119498288-19-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	931-468-2
CAS	
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Sens. 1B, H317
	STOT RE 2, H373 (liver)

Impurities, test data and additional information may have been taken into account in classifying and labelling the product. For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.



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The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

Sensitive individuals:

Allergic reaction possible.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media

CO2

Foam

Dry extinguisher

Water jet spray

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Fume

Oxides of nitrogen

Oxides of sulphur

Metal oxides

Zinc oxide

Oxides of phosphorus

Chlorides

Hydrogen sulphide

Aldehydes

Ketones

Toxic gases

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.



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Protective respirator with independent air supply.

According to size of fire Full protection, if necessary. Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid formation of oil mist.

Avoid contact with eyes or skin.

Do not carry cleaning cloths soaked in product in trouser pockets.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Do not heat to temperatures close to flash point.

Observe directions on label and instructions for use.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Under all circumstances prevent penetration into the soil.

Store at room temperature.

Store in a dry place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters



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Chemical Name	Oil mist, mineral			
WEL-TWA: 5 mg/m3 (Mineral oil, o	excluding metal	WEL-STEL:		
working fluids, ACGIH)				
Monitoring procedures:	-	Draeger - Oil Mist 1/a (67 33 031)		
BMGV:			Other information:	-

Distillates (petroleum), hydrotreated heavy paraffinic						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - oral (animal feed)		PNEC	9,33	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,19	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,74	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,58	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,97	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m3	

Lubricating oils (petroleum)	C20-50, hydrotreated neutral	oil-based				
Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	Compartment Human - oral		PNEC	9,33	mg/kg feed	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,74	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,19	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,97	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,58	mg/m3	

Lubricating oils (petroleum),	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based						
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note	
	Environmental						
	compartment						
Consumer	Human - inhalation	Long term, local effects	DNEL	1,19	mg/m3	24h	
Consumer	Human - oral	Long term, systemic	DNEL	0,74	mg/kg		
		effects			bw/day		
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,58	mg/m3	8h	
Workers / employees	Human - dermal	Long term, systemic	DNEL	0,97	mg/kg		
		effects			bw/day		
Workers / employees	Human - inhalation	Long term, systemic	DNEL	2,73	mg/m3		
		effects					

Distillates (petroleum), solve	nt-dewaxed light paraffinic					
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - oral (animal		PNEC	9,33	mg/kg feed	
	feed)					
Consumer	Human - inhalation	Long term, local effects	DNEL	1,19	mg/m3	



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Consumer	Human - oral	Long term, systemic effects	DNEL	0,74	mg/kg bw/dav
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m3
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,58	mg/m3
Workers / employees	Human - dermal	Long term, systemic	DNEL	0,97	mg/kg
		effects			bw/day

C14-16-18 Alkylphenol			1			
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - sediment,		PNEC	4266,16	mg/kg	
	freshwater					
	Environment - soil		PNEC	852,58	mg/kg	
	Environment - marine		PNEC	0,01	mg/l	
	Environment - sewage		PNEC	100	mg/l	
	treatment plant					
	Environment - sediment,		PNEC	426,62	mg/kg	
	marine					
	Environment - freshwater		PNEC	0,1	mg/l	
Workers / employees	Human - dermal	Long term, systemic	DNEL	0,3	mg/kg	
		effects				
Workers / employees	Human - inhalation	Long term, systemic	DNEL	1,17	mg/kg	
		effects				

Distillates (petroleum), hydrotreated heavy paraffinic									
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note			
	Environment - oral (animal feed)		PNEC	9,33	mg/kg feed				
Consumer	Human - inhalation	Long term, local effects	DNEL	1,2	mg/m3				
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m3				
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,97	mg/kg				
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,6	mg/m3				

- United Kingdom | WEL-TWA = Workplace Exposure Limit Long-term exposure limit 8-hour TWA (= time weighted average) reference
 period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:
- (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE).
- | WEL-STEL = Workplace Exposure Limit Short-term exposure limit 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:
- (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |
- | BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |
- | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU or 2024/869/EU: (13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE), (15) = Substantial contribution to the total body burden via dermal exposure possible.

8.2 Exposure controls

8.2.1 Appropriate engineering controls



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Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles (EN 166) with side protection, with danger of splashes.

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

If applicable

Protective nitrile gloves (EN ISO 374).

Minimum layer thickness in mm:

0,5

Permeation time (penetration time) in minutes:

>= 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Filter A P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid Colour: Liquid Brown

Odour: Characteristic

Melting point/freezing point:

There is no information available on this parameter.

Boiling point or initial boiling point and boiling range:

There is no information available on this parameter.

Flammability: Combustible.



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Lower explosion limit:

Upper explosion limit:

Flash point:

Auto-ignition temperature: Decomposition temperature:

pH:

Kinematic viscosity: Kinematic viscosity:

Solubility:

Partition coefficient n-octanol/water (log value):

Vapour pressure:

Density and/or relative density:

Relative vapour density:

Particle characteristics:

9.2 Other information

Explosives:
Oxidising liquids:

There is no information available on this parameter. There is no information available on this parameter.

230 °C

There is no information available on this parameter.

There is no information available on this parameter.

Mixture is non-soluble (in water).

70 mm2/s (40°C) 13 mm2/s (100°C)

Insoluble

Does not apply to mixtures.

There is no information available on this parameter.

0,850 g/ml

There is no information available on this parameter.

Does not apply to liquids.

Product is not explosive.

No

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Open flame, ignition sources

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

Possibly more information on health effects, see Section 2.1 (classification).

Top Tec 4110 5W-40						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Distillates (petroleum), hydrotreated heavy paraffinic							
Toxicity / effect	Endpoint Value	Unit	Organism	Test method	Notes		



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Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 420 (Acute Oral toxicity - Fixe Dose Procedure)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Analogous conclusion
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant, Analogous conclusion
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion Chinese hamster
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative, Analogous conclusion 78 weeks, dermal
Reproductive toxicity:				Rat	OECD 421 (Reproduction/Developm ental Toxicity Screening Test)	Negative, Analogous conclusion oral
Reproductive toxicity (Developmental toxicity):				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion dermal
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	125	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	1000	mg/kg	Rabbit	OECD 410 (Repeated Dose Dermal Toxicity - 90-Day)	Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	0,22	mg/l	Rat		Dust, Mist, Analogous conclusion 4 weeks
Aspiration hazard: Symptoms:						Asp. Tox. 1 gastrointestinal disturbances, diarrhoea

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral			
					Toxicity)			



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Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute	
Aguta taviaitu bu inhalatian	LCEO	. F FO	no =:/1/4 ls	Dot	Dermal Toxicity)	Aaraaal
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant,
Skiii corrosion/irritation.				Rabbit	Dermal	Analogous
					Irritation/Corrosion)	conclusion
Cariana ava damaga/irritation				Dobbit	OECD 405 (Acute Eye	Not irritant
Serious eye damage/irritation:				Rabbit	Irritation/Corrosion)	Not imiant
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact)
sensitisation:				Guiriea pig	Sensitisation)	INO (SKIII COIIIACI
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative,
Germ cen mutagemeny.				typhimurium	Reverse Mutation Test)	Analogous
				туриничини	Reverse indiation rest)	conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
Germ cen mutagemony.					Mammalian	
						Analogous
					Chromosome	conclusion
					Aberration Test)	Chinese hamster
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative,
					Mammalian Cell Gene	Analogous
					Mutation Test)	conclusion
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian	Negative,
					Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Carcinogenicity:					OECD 453 (Combined	Negative
					Chronic	
					Toxicity/Carcinogenicity	
					Studies)	
Carcinogenicity:				Mouse	OECD 451	Negative,
					(Carcinogenicity Studies)	Analogous
						conclusion
Reproductive toxicity:					OECD 414 (Prenatal	Negative
					Developmental Toxicity	
					Study)	
Reproductive toxicity:				Rat	OECD 421	Negative,
					(Reproduction/Developm	Analogous
					ental Toxicity Screening	conclusion
					Test)	
Specific target organ toxicity -					OECD 453 (Combined	Negative
repeated exposure (STOT-RE):					Chronic `	· ·
, , ,					Toxicity/Carcinogenicity	
					Studies)	
Specific target organ toxicity -					OECD 408 (Repeated	Negative
repeated exposure (STOT-RE):					Dose 90-Day Oral	3
,					Toxicity Study in	
					Rodents)	
Specific target organ toxicity -					OECD 411 (Subchronic	Negative
repeated exposure (STOT-RE):					Dermal Toxicity - 90-day	. roganio
. op said expectio (OTOT NE).					Study)	
Specific target organ toxicity -					OECD 412 (Subacute	Negative
repeated exposure (STOT-RE):					Inhalation Toxicity - 28-	. 10941110
repeated exposure (OTOT-NL).					Day Study)	
Specific target organ toxicity -	NOAEL	1000	mg/kg	Rabbit	OECD 410 (Repeated	Analogous
repeated exposure (STOT-RE),	NOALL	1000	bw/d	ιλαυυπ	Dose Dermal Toxicity -	conclusion
dermal:			DW/U		90-Day)	COLICIUSION
	1	1	1	The second secon		

Lubricating oils (petroleum), C Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	
					Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute	
					Dermal Toxicity)	



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Acute toxicity, by inhalation:	LC50	>5,53	mg/m3/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant.
Skiii Coirosion/iiiitation.				Rabbit	Dermal	Analogous
						conclusion
Cariatta atta daman and invitations				Rabbit	Irritation/Corrosion)	Not irritant.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	
					Irritation/Corrosion)	Analogous
D :				0	0505 400 (01)	conclusion
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin
sensitisation:					Sensitisation)	contact),
						Analogous
						conclusion
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative,
				typhimurium	Reverse Mutation Test)	Analogous
						conclusion
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusion,
					Aberration Test)	Chinese hamster
Carcinogenicity:				Mouse	OECD 451	Negative,
					(Carcinogenicity Studies)	Analogous
						conclusion
Reproductive toxicity:	NOAEL	>=1000	mg/kg/d	Rat	OECD 421	Negative
					(Reproduction/Developm	
					ental Toxicity Screening	
					Test)	
Specific target organ toxicity -	NOAEL	125	mg/kg	Rat	OECD 408 (Repeated	Analogous
repeated exposure (STOT-RE),					Dose 90-Day Oral	conclusion
oral:					Toxicity Study in	
					Rodents)	
Specific target organ toxicity -	NOAEL	30	mg/kg	Rat	OECD 411 (Subchronic	Analogous
repeated exposure (STOT-RE),					Dermal Toxicity - 90-day	conclusion
dermal:					Study)	
Specific target organ toxicity -	NOAEL	~1000	mg/kg	Rabbit	OECD 410 (Repeated	Analogous
repeated exposure (STOT-RE),			bw/d		Dose Dermal Toxicity -	conclusion
dermal:			2		90-Day)	33.101401011
Aspiration hazard:					July)	Yes
Symptoms:						nausea and
Cymptomo.						vomiting.

Distillates (petroleum), solvent-dewaxed light paraffinic							
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes	
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)		
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant	
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)	
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative	
Germ cell mutagenicity:				Mammalian	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative	
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion Chinese hamster	



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Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative
					Mammalian Cell Gene	
					Mutation Test)	
Reproductive toxicity:	NOAEL	>1000	mg/kg	Rat	OECD 421	Negative
			bw/d		(Reproduction/Developm	
					ental Toxicity Screening	
					Test)	
Reproductive toxicity:	NOAEL	>2000	mg/kg	Rat	OECD 414 (Prenatal	
			bw/d		Developmental Toxicity	
					Study)	
Aspiration hazard:						Yes
Symptoms:						drying of the
						skin., vomiting,
						nausea

C14-16-18 Alkylphenol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 423 (Acute Oral	
					Toxicity - Acute Toxic	
					Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute	
					Dermal Toxicity)	
Skin corrosion/irritation:					OECD 439 (In Vitro Skin	Not irritant
					Irritation -	
					Reconstructed Human	
					Epidermis Test Method)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
					Irritation/Corrosion)	
Respiratory or skin				Mouse	OECD 429 (Skin	Sensitising
sensitisation:					Sensitisation - Local	
					Lymph Node Assay)	

11.2. Information on other hazards

Top Tec 4110 5W-40							
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes	
Endocrine disrupting properties:						Does not apply	
						to mixtures.	
Other information:						No other	
						relevant	
						information	
						available on	
						adverse effects	
						on health.	

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	-						n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.



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	12.7. Other adverse			No information
	effects:			available on
				other adverse
				effects on the
				environment

Distillates (petroleum), hydrotreated heavy paraffinic										
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes			
12.1. Toxicity to fish:	LL50	96h	>100	mg/l	Oncorhynchus	OECD 203 (Fish,	Analogous			
					mykiss	Acute Toxicity	conclusion			
						Test)				
12.1. Toxicity to fish:	NOEC/NOEL	28d	>1000	mg/l	Oncorhynchus	QSAR				
					mykiss					
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	QSAR	Analogous			
							conclusion			
12.1. Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202	Analogous			
						(Daphnia sp.	conclusion			
						Acute				
						Immobilisation				
						Test)				
12.1. Toxicity to algae:	EC50	48h	>100	mg/l	Pseudokirchneriell	OECD 201 (Alga,				
					a subcapitata	Growth Inhibition				
						Test)				
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriell	OECD 201 (Alga,	Analogous			
					a subcapitata	Growth Inhibition	conclusion			
						Test)				
12.2. Persistence and		28d	31	%	activated sludge	OECD 301 F	Not readily			
degradability:						(Ready	biodegradable,			
						Biodegradability -	Analogous			
						Manometric	conclusion			
						Respirometry Test)				
12.2. Persistence and		28d	6	%		OECD 301 B	Not readily			
degradability:						(Ready	biodegradable			
-						Biodegradability -	_			
						Co2 Evolution				
						Test)				
12.3. Bioaccumulative	Log Pow		3,9-6			,	High			
potential:	•						-			
12.5. Results of PBT							No PBT			
and vPvB assessment							substance, No			
							vPvB substanc			
Other information:	AOX		0	%						

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based										
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes			
12.1. Toxicity to fish:	NOEC/NOEL	96h	>=100	mg/l	Pimephales	OECD 203 (Fish,				
					promelas	Acute Toxicity				
						Test)				
12.1. Toxicity to fish:	LL50	96h	> 100	mg/l	Pimephales	OECD 203 (Fish,				
					promelas	Acute Toxicity				
1						Test)				
12.1. Toxicity to daphnia:	EL50	48h	>10000	mg/l	Daphnia magna	OECD 202				
						(Daphnia sp.				
						Acute				
						Immobilisation				
						Test)				
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211				
						(Daphnia magna				
						Reproduction Test)				
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriell	OECD 201 (Alga,				
					a subcapitata	Growth Inhibition				
						Test)				



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12.1. Toxicity to algae:	EL50	48h	>100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:						OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable
12.2. Persistence and degradability:		28d	31	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Analogous conclusion
12.3. Bioaccumulative potential:	Log Kow		>6				A notable biological accumulation potential has to be expected (LogPow > 3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	10min	> 1,93	mg/l	activated sludge		DIN 38412

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	14d	>=1000	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to fish:	LL50	96h	>100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>=100	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	Analogous conclusion
12.1. Toxicity to daphnia:	EL50	48h	>10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.2. Persistence and degradability:		28d	>60	%			Readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other information:	Log Pow		6,1				

Distillates (petroleum), solvent-dewaxed light paraffinic										
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes			
12.1. Toxicity to fish:	LL50	96h	>100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)				
12.1. Toxicity to daphnia:	EL50	48h	>10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)				
12.1. Toxicity to daphnia:	LL50	48h	>1000	mg/l	Gammarus sp.	OECD 202 (Daphnia sp. Acute Immobilisation Test)				



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12.1. Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	>100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	31	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Inherent
12.3. Bioaccumulative potential:	Log Pow		>3			, , ,	Low
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.6. Endocrine disrupting properties:							Negative

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Cyprinus carpio	OECD 203 (Fish, Acute Toxicity	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	Test) OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	6	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of. EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

13 01 10 mineral based non-chlorinated hydraulic oils

13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information



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General statements

Transport by road/by rail (ADR/RID)

14.1. UN number or ID number: Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):Not applicable14.4. Packing group:Not applicable14.5. Environmental hazards:Not applicableTunnel restriction code:Not applicableClassification code:Not applicableLQ:Not applicable

Transport category: Not applicable

Transport by sea (IMDG-code)

14.1. UN number or ID number: Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):Not applicable14.4. Packing group:Not applicable14.5. Environmental hazards:Not applicableMarine Pollutant:Not applicableEmS:Not applicable

Transport by air (IATA)

14.1. UN number or ID number: Not applicable

14.2. UN proper shipping name:

Not applicable

14.3. Transport hazard class(es):Not applicable14.4. Packing group:Not applicable14.5. Environmental hazards:Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:

General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): 0 %

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Not applicable

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents. H317 May cause an allergic skin reaction.



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H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. — Aspiration hazard Skin Sens. — Skin sensitization

STOT RE — Specific target organ toxicity - repeated exposure

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level

DOC Dissolved organic carbon

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community
ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer



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IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods incl. including, inclusive

IUCLID International Uniform Chemical Information Database IUPAC International Union for Pure Applied Chemistry

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

mg/kg bw mg/kg body weight

mg/kg bw/d, mg/kg bw/day mg/kg body weight/day

mg/kg dw mg/kg dry weight mg/kg wwt mg/kg wet weight

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration,

Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

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