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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 02.12.2020 / 0008

Replacing version dated / version: 21.04.2020 / 0007

Valid from: 02.12.2020 PDF print date: 02.12.2020

Grundierfueller

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

1.1 Product identifier

Grundierfueller

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

Priming

Corrosion protection

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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:

Telephone number of the company in case of emergencies:

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Hazard class	Hazard category	Hazard statement
Even lunit	^	LIO40 Causas assist

H319-Causes serious eye irritation. Eye Irrit. STOT SE 3 H336-May cause drowsiness or dizziness.

2 H411-Toxic to aquatic life with long lasting effects. Aquatic Chronic

Aerosol 1 H222-Extremely flammable aerosol.

Aerosol H229-Pressurised container: May burst if heated.

2.2 Label elements

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



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H319-Causes serious eye irritation. H336-May cause drowsiness or dizziness. H411-Toxic to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P273-Avoid release to the environment. P280-Wear eye protection.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312-Call a POISON CENTRE / doctor if you feel unwell.

P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH066-Repeated exposure may cause skin dryness or cracking.

EUH208-Contains Reaction product: bisphenol-A-(epichlorhydrin). May produce an allergic reaction.

Without adequate ventilation, formation of explosive mixtures may be possible.

n-butyl acetate

Acetone

Butan-1-ol

Hydrocarbons, C9, aromatics

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 %).

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substances

n.a. 3.2 Mixtures

Dimethyl ether	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119472128-37-XXXX
Index	603-019-00-8
EINECS, ELINCS, NLP	204-065-8
CAS	115-10-6
content %	25-<50
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Gas 1A, H220

Acetone	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119471330-49-XXXX
Index	606-001-00-8
EINECS, ELINCS, NLP	200-662-2
CAS	67-64-1
content %	10-<25



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Classification according to Regulation (EC) 1272/2008 (C	LP) Flam. Liq. 2, H225
	Eye Irrit. 2, H319
	STOT SF 3, H336

n-butyl acetate	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119485493-29-XXXX
Index	607-025-00-1
EINECS, ELINCS, NLP	204-658-1
CAS	123-86-4
content %	10-<25
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226
	STOT SE 3 H336

Xylene	Substance for which an EU exposure limit value applies.
Registration number (REACH)	
Index	601-022-00-9
EINECS, ELINCS, NLP	215-535-7
CAS	1330-20-7
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226
	Acute Tox. 4, H332
	Acute Tox. 4, H312
	Skin Irrit. 2, H315

Butan-1-ol	
Registration number (REACH)	
Index	603-004-00-6
EINECS, ELINCS, NLP	200-751-6
CAS	71-36-3
content %	1-<3
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226
	Acute Tox. 4, H302
	STOT SE 3, H335
	Skin Irrit. 2, H315
	Eye Dam. 1, H318
	STOT SE 3, H336

Propan-2-ol	
Registration number (REACH)	
Index	603-117-00-0
EINECS, ELINCS, NLP	200-661-7
CAS	67-63-0
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225
	Eye Irrit. 2, H319
	STOT SE 3 H336

Trizinc bis(orthophosphate)	
Registration number (REACH)	
Index	030-011-00-6
EINECS, ELINCS, NLP	231-944-3
CAS	7779-90-0
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1)
	Aguatic Chronic 1 H410 (M=1)

Zinc oxide	
Registration number (REACH)	
Index	030-013-00-7
EINECS, ELINCS, NLP	215-222-5
CAS	1314-13-2
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1)
	Aquatic Chronic 1, H410 (M=1)



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Hydrocarbons, C9, aromatics	
Registration number (REACH)	01-2119455851-35-XXXX
Index	
EINECS, ELINCS, NLP	918-668-5 (REACH-IT List-No.)
CAS	(64742-95-6)
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226
	Asp. Tox. 1, H304
	STOT SE 3, H335
	STOT SE 3, H336
	Aquatic Chronic 2, H411

Reaction product: bisphenol-A-(epichlorhydrin)	
Registration number (REACH)	
Index	603-074-00-8
EINECS, ELINCS, NLP	500-033-5 (NLP)
CAS	25068-38-6
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319
	Skin Irrit. 2, H315
	Skin Sens. 1, H317
	Aquatic Chronic 2, H411

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

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.

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.

If the person is unconscious, place in a stable side position and consult a doctor.

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

Typically no exposure pathway.

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

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.

The following may occur:

Irritation of the respiratory tract

Coughing

Headaches

Dizziness

Effects/damages the central nervous system

With long-term contact:

drying of the skin.

Dermatitis (skin inflammation)

Allergic reaction



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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

Extinction powder Water jet spray Alcohol resistant foam

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

Toxic gases

Danger of bursting (explosion) when heated Explosive vapour/air or gas/air mixtures.

5.3 Advice for firefighters

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

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

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.

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

If spray or gas escapes, ensure ample fresh air is available.

Without adequate ventilation, formation of explosive mixtures may be possible.

Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) 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 inhalation of the vapours.

Avoid contact with eyes or skin.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Do not use on hot surfaces.



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

Observe directions on label and instructions for use. Use working methods according to operating instructions.

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

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Observe special regulations for aerosols!

Observe special storage conditions.

Do not store with flammable or self-igniting materials.

Keep protected from direct sunlight and temperatures over 50°C.

150 ppm (724 mg/m3) (WEL), 50 ppm

Store in a well-ventilated place.

Store cool.

WEL-TWA: 150 (241 mg/m3) (EU)

Monitoring procedures:

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40): 500 mg/m3

Chemical Name	Dimethyl ether		Content %:25- <50
WEL-TWA: 400 ppm (766 mg/m3) (1920 mg/m3) (EU)	(WEL), 1000 ppm	WEL-STEL: 500 ppm (958 mg/m3) (WEL)	130
Monitoring procedures:	-	Compur - KITA-123 S (549 129)	
BMGV:		Other information:	
©® Chemical Name	Acetone	·	Content %:10- <25
WEL-TWA: 500 ppm (1210 mg/m)	, , , , , , , , , , , , , , , , , , , 	WEL-STEL: 1500 ppm (3620 mg/m3) (WEL)	
Monitoring procedures: BMGV:	- - - - - - - -	Draeger - Acetone 100/b (CH 22 901) Draeger - Acetone 40/a (5) (81 03 381) Compur - KITA-102 SA (548 534) Compur - KITA-102 SC (548 550) Compur - KITA-102 SD (551 109) INSHT MTA/MA-031/A96 (Determination of ketones (acetone, metimethyl isobutyl ketone) in air - Charcoal tube method / Gas chroma EU project BC/CEN/ENTR/000/2002-16 card 67-1 (2004) MDHS 72 (Volatile organic compounds in air – Laboratory method sorbent tubes, thermal desorption and gas chromatography) - 1993 NIOSH 1300 (KETONES I) - 1994 NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING NIOSH 2555 (KETONES I) - 2003 NIOSH 3800 (ORGANIC AND INORGANIC GASES BY EXTRACT SPECTROMETRY) - 2016 OSHA 69 (Acetone) - 1988	tography) - 1996 - using pumped solid
_		Other information	0 1 10/ :-
Chemical Name	n-butyl acetate		Content %:10-

(723 mg/m3) (EU)

Compur - KITA-138 U (548 857) Compur - KITA-139 SB(C) (549 731) NIOSH 1450 (ESTERS 1) - 2003

WEL-STEL: 200 ppm (966 mg/m3) (WEL), 150 ppm



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-	NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996
	OSHA 1009 (n-Butyl Acetate Isobutyl Acetate sec-Butyl Acetate tert-Butyl Acetate) -
-	2007

BMGV: ---Other information: ---

© Chemical Name Xylene		Content %:1-<5
WEL-TWA: 220 mg/m3 (50 ppm) (WEL), 50 ppm	WEL-STEL: 100 ppm (441 mg/m3 (WEL), 100 ppm	
(221 mg/m3) (EU)	(442 mg/m3) (EU)	
Monitoring procedures: -	Draeger - Xylene 10/a (67 33 161)	
-	Compur - KITA-143 SA (550 325)	
-	Compur - KITA-143 SB (505 998)	
	INSHT MTA/MA-030/A92 (Determination of aromatic hydroc	arbons (benzene, toluene,
	ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Cha	rcoal tube method / Gas
-	chromatography) - 1992 - EU project BC/CEN/ENTR/000/20	02-16 card 47-1 (2004)
-	NIOSH 1501 (HYDROCARBONS, AROMATIC) - 2003	
-	NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE	ENING)) - 1996
-	OSHA 1002 (Xylenes (o-, m-, p-isomers) Ethylbenzene) - 19	999
BMGV: 650 mmol methyl hippuric acid/mol creatinir	ne in urine, post shift (Xylene, o-, m- Other information: Sk	(WEL)
, p- or mixed isomers) (BMGV)		,

(B) Chemical Name	Butan-1-ol		Content %:1-<3
WEL-TWA:		WEL-STEL: 50 ppm (154 mg/m3)	
Monitoring procedures:	-	Draeger - Alcohol 25/a n-Butanol (81 01 631)	
	-	Compur - KITA-190 U(C) (548 873)	
	-	NIOSH 1400 (ALCOHOLS I) - 1994	
	-	NIOSH 1401 (ALCOHOLS II) - 1994	
	-	NIOSH 1405 (ALCOHOLS COMBINED) - 2003	
	-	NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCRE	ENING)) - 1996
	=	Draeger - Alcohol 100/a (CH 29 701)	
BMGV:		Other information: S	k

Chemical Name	Propan-2-ol		Content %:1-<2,5
WEL-TWA: 400 ppm (999 mg/m3)		WEL-STEL: 500 ppm (1250 mg/m3)	
Monitoring procedures:	-	Draeger - Alcohol 25/a i-Propanol (81 01 631)	
	-	Compur - KITA-122 SA(C) (549 277)	
	-	Compur - KITA-150 U (550 382)	
		DFG (D) (Loesungsmittelgemische), DFG (E) (Solvent mixtu	ıres 6) - 2013, 2002 - EU
	-	project BC/CEN/ENTR/000/2002-16 card 66-3 (2004)	
	=	NIOSH 1400 (ALCOHOLS I) - 1994	
	-	NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE	ENING)) - 1996
	=	Draeger - Alcohol 100/a (CH 29 701)	
BMGV:		Other information:	

Chemical Name	Hydrocarbons, C9, aromatics	Content %:1-<2,5
WEL-TWA: 500 mg/m3 (Aromatics)	WEL-STEL:	
Monitoring procedures:	 Draeger - Hydrocarbons 0,1%/c (81 03 571) 	
	 Draeger - Hydrocarbons 2/a (81 03 581) 	
	- Compur - KITA-187 S (551 174)	
BMGV:	Other information:	

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,155	mg/l	
	Environment - sediment, freshwater		PNEC	0,681	mg/kg	
	Environment - soil		PNEC	0,045	mg/kg	
	Environment - sewage treatment plant		PNEC	160	mg/l	
	Environment - marine		PNEC	0,016	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	1,549	mg/l	



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	Environment - sediment, marine		PNEC	0,069	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	471	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1894	mg/m3	

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - marine		PNEC	1,06	mg/l	Assesment factor 500
	Environment - freshwater		PNEC	10,6	mg/l	Assesment factor 50
	Environment - sediment, freshwater		PNEC	30,4	mg/l	
	Environment - sediment, marine		PNEC	3,04	mg/l	
	Environment - soil		PNEC	29,5	mg/kg dw	
	Environment - sewage treatment plant		PNEC	19,5	mg/l	
	Environment - sporadic (intermittent) release		PNEC	21	mg/l	Assesment factor 100
	Environment - sewage treatment plant		PNEC	100	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 2
Consumer	Human - dermal	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 20
Consumer	Human - inhalation	Long term, systemic effects	DNEL	200	mg/m3	Overall assesment factor 5
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	186	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	2420	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1210	mg/m3	

n-butyl acetate						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,18	mg/l	
	Environment - marine		PNEC	0,018	mg/l	
	Environment - periodic release		PNEC	0,36	mg/l	
	Environment - sediment, freshwater		PNEC	0,981	mg/kg	
	Environment - sediment, marine		PNEC	0,0981	mg/kg	
	Environment - soil		PNEC	0,0903	mg/kg	
	Environment - sewage treatment plant		PNEC	35,6	mg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	6	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	300	mg/m3	



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Consumer	Human - inhalation	Long term, systemic effects	DNEL	35,7	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	300	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	35,7	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	6	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	2	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	2	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	600	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	300	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	11	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	600	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	300	mg/m3	

Xylene						
Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment					
	Environment - freshwater		PNEC	0,327	mg/l	
	Environment - sediment,		PNEC	12,46	mg/kg	
	freshwater					
	Environment - soil		PNEC	2,31	mg/kg	
	Environment - marine		PNEC	0,327	mg/l	
	Environment - sediment, marine		PNEC	12,46	mg/kg	
	Environment - sewage treatment plant		PNEC	6,58	mg/l	
Consumer	Human - inhalation	Short term, local effects	DNEL	174	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	174	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	108	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	14,8	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	77	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	180	mg/kg	

Butan-1-ol									
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note			
	Environmental								
	compartment								
	Environment - freshwater		PNEC	0,082	mg/l				
	Environment - marine		PNEC	0,0082	mg/l				
	Environment - sewage		PNEC	2476	mg/l				
	treatment plant								



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	Environment - sediment, freshwater		PNEC	0,178	mg/kg	
	Environment - sediment, marine		PNEC	0,0178	mg/l	
	Environment - soil		PNEC	0,015	mg/kg	
	Environment - water, sporadic (intermittent) release		PNEC	2,25	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	55	mg/m3	
Workers / employees	Human - oral	Long term, systemic effects	DNEL	3,125	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	310	mg/m3	

Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment,		PNEC	552	mg/kg	
	freshwater					
	Environment - sediment,		PNEC	552	mg/kg	
	marine					
	Environment - soil		PNEC	28	mg/kg	
	Environment - sewage		PNEC	2251	mg/l	
	treatment plant					
	Environment - water,		PNEC	140,9	mg/l	
	sporadic (intermittent)					
	release					
	Environment - oral (animal		PNEC	160	mg/kg feed	
	feed)					
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)
Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m3	

Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment		DNIEG	00.0	//	-
	Environment - freshwater		PNEC	20,6	μg/l	Zn
	Environment - marine		PNEC	6,1	μg/l	Zn
	Environment - sediment, freshwater		PNEC	117,8	mg/kg dry weight	Zn
	Environment - sediment, marine		PNEC	56,5	mg/kg dry weight	Zn
	Environment - soil		PNEC	35,6	mg/kg	Zn
	Environment - sewage treatment plant		PNEC	100	μg/l	Zn
Consumer	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,5	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg bw/day	Zn, soluble
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m3	Zn, insoluble



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Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	20,6	μg/l	
	Environment - marine		PNEC	6,1	μg/l	
	Environment - sewage treatment plant		PNEC	100	μg/l	
	Environment - sediment, freshwater		PNEC	118	mg/kg	
	Environment - sediment, marine		PNEC	56,5	mg/kg	
	Environment - soil		PNEC	35,6	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	3,1	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,5	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/day	
Workers / employees	Human - dermal	Short term, local effects	DNEL	6223	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, local effects	DNEL	83	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,5	mg/m3	
Workers / employees	Human - oral	Short term, local effects	DNEL	62,2	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	6,2	mg/m3	
Workers / employees Human - inhalation		Long term, systemic effects	DNEL	5	mg/m3	

Hydrocarbons, C9, aroma	Hydrocarbons, C9, aromatics								
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note			
Consumer	Human - inhalation	Long term, systemic effects	DNEL	32	mg/m3				
Consumer	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/day				
Consumer	Human - oral	Long term, systemic effects	DNEL	11	mg/kg bw/day				
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	25	mg/kg bw/day				
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	150	mg/m3				

Reaction product: bisphenol-A-(epichlorhydrin)								
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note		
	Environmental							
	compartment							
	Environment - freshwater		PNEC	0,003	mg/l			
	Environment - marine		PNEC	0,0003	mg/l			
	Environment - water,		PNEC	0,018	mg/l			
	sporadic (intermittent)							
	release							
	Environment - sewage		PNEC	10	mg/l			
	treatment plant							



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	Environment - sediment, freshwater		PNEC	0,5	mg/kg dw
	Environment - sediment, marine		PNEC	0,5	mg/kg dw
	Environment - soil		PNEC	0,05	mg/kg dw
	Environment - oral (animal feed)		PNEC	11	mg/kg
Consumer	Human - dermal	Short term, systemic effects	DNEL	3,571	mg/kg bw/day
Consumer	Human - oral	Short term, systemic effects	DNEL	0,75	mg/kg bw/day
Consumer	Human - oral	Long term, systemic effects	DNEL	0,75	mg/kg bw/day
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,75	mg/m3
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,75	mg/m3
Consumer	Human - dermal	Long term, systemic effects	DNEL	3,6	mg/kg bw/day
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	8,33	mg/kg bw/day
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	12,25	mg/m3
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	12,3	mg/m3

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
- (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 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 (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU), 2017/2398/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. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls

8.2.1 Appropriate engineering controls

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 with side protection (EN 166).

Skin protection - Hand protection:



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Chemical resistant protective gloves (EN 374).

Recommended

Protective gloves in butyl rubber (EN 374).

Minimum layer thickness in mm:

>= 0.5

Permeation time (penetration time) in minutes:

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 A2 P2 (EN 14387), code colour brown, white

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

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 manufacturer.

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: Aerosol. Active substance: liquid.

Colour: Grev Odour:

Characteristic

Odour threshold: Not determined pH-value: n.a.

Melting point/freezing point: Not determined

Initial boiling point and boiling range: n.a.

Flash point: n.a. Evaporation rate: n.a. Flammability (solid, gas): n.a. Lower explosive limit: 1,2 Vol-%

Upper explosive limit: 18,6 Vol-% Vapour pressure: 4000 hPa (20°C) Vapour density (air = 1): Not determined

0,82 g/cm3 (20°C) Density: Bulk density: n.a.

Solubility(ies): Not determined Water solubility: Not miscible Not determined

Partition coefficient (n-octanol/water): Auto-ignition temperature: 235 °C

Auto-ignition temperature: No Decomposition temperature: Not determined Viscosity: Not determined



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Explosive properties: Product is not explosive. Possible build up of explosive/highly

flammable vapour/air mixture.

Oxidising properties:

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Not determined

Surface tension:

Not determined

Not determined

Not determined

Not determined

SECTION 10: Stability and reactivity

No

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

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong alkalis.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Grundierfueller						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value,
						Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value,
						Aerosol, Mist
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.

Dimethyl ether						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	164	mg/l/4h	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant



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Respiratory or skin						No (skin contact)
sensitisation:						
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 477 (Genetic Toxicology - Sex-Linked Recessive Lethal Test in Drosophilia melanogaster)	Negative
Carcinogenicity:	NOAEC	47000	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	5000	ppm	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEC	47106	mg/kg	Rat	OECD 452 (Chronic Toxicity Studies)	Negative(2 a)
Aspiration hazard:						No
Symptoms:						unconsciousness, headaches, mucous membrane irritation, dizziness, nausea and vomiting, frostbite, gastrointestinal disturbances, respiratory distress, circulatory

Acetone						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	5800	mg/kg	Rat	OECD 401 (Acute Oral	
					Toxicity)	
Acute toxicity, by dermal route:	LD50	>15800	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	76	mg/l/4h	Rat		
Skin corrosion/irritation:				Guinea pig		Repeated
						exposure may
						cause skin
						dryness or
						cracking., Not
						irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Eye Irrit. 2
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro	Negative
					Mammalian Cell Gene	
					Mutation Test)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro	Negative
					Mammalian	
					Chromosome	
					Aberration Test)	



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Reproductive toxicity				Rat	OECD 414 (Prenatal	Negative
(Developmental toxicity):					Developmental Toxicity Study)	
Symptoms:						unconsciousness, vomiting, headaches, gastrointestinal disturbances, fatigue, mucous membrane irritation, dizziness, nausea, drowsiness
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

Acute toxicity, by oral route:			Unit	Organism	Test method	Notes
	LD50	10760	mg/kg	Rat	OECD 423 (Acute Oral Toxicity - Acute Toxic	
					Class Method)	
Acute toxicity, by dermal route:	LD50	>14112	mg/kg	kg Rabbit OECD 402 (Acute		
•					Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	21,1	mg/l/4h	Rat	OECD 403 (Acute	Mist
					Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact
sensitisation:					Sensitisation)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Reproductive toxicity:	NOAEC	9640	mg/m3		OECD 416 (Two-	Negative
					generation	
					Reproduction Toxicity	
					Study)	
Specific target organ toxicity -						Vapours may
single exposure (STOT-SE):						cause
						drowsiness and
2						dizziness.
Specific target organ toxicity -						Negative
repeated exposure (STOT-RE): Symptoms:						drowsiness,
Symptoms.						unconsciousnes
						, headaches,
						drowsiness,
						mucous
						membrane
						irritation,
						dizziness.
						nausea and
						vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE),	NOAEC	500	ppm	Rat		



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Other information:			Repeated
			exposure may
			cause skin
			dryness or
			cracking.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2840	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>1700	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	21,7	mg/l/4h	Rat		Vapours, Does
						not conform wit
						EU classificatio
Skin corrosion/irritation:				Rabbit		Irritant
Serious eye damage/irritation:				Rabbit		Slightly irritant
Respiratory or skin					(Patch-Test)	Negative
sensitisation:						
Symptoms:						breathing
						difficulties,
						drying of the
						skin.,
						drowsiness,
						unconsciousne
						, burning of the
						membranes of
						the nose and
						throat, vomiting
						skin afflictions,
						heart/circulator
						disorders,
						coughing,
						headaches,
						drowsiness,
						dizziness,
						nausea

Butan-1-ol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	2292	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Does not conform with EU classification.
Acute toxicity, by dermal route:	LD50	3430	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	24	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit		Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1
Respiratory or skin				Mouse	OECD 429 (Skin	No (skin contact)
sensitisation:					Sensitisation - Local	
					Lymph Node Assay)	
Germ cell mutagenicity:					OECD 471 (Bacterial	References,
					Reverse Mutation Test)	Negative



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Symptoms:					respiratory distress, drowsiness, unconsciousness , drop in blood pressure, heart/circulatory disorders, coughing, headaches, intoxication,
	NOT	405		Date	mucous membrane irritation, dizziness, nausea and vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOEL	125	mg/kg bw/d	Rat	

Propan-2-ol Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570-5840	mg/kg	Rat	OECD 401 (Acute Oral	NOIES
Acute toxicity, by drai route.	LD30	4370-3640	IIIg/kg	Nai	Toxicity)	
A suite terrisitur bur de masel meriter	LDEO	12000		Dobbit	OECD 402 (Acute	
Acute toxicity, by dermal route:	LD50	13900	mg/kg	Rabbit		
A	1050		0.741	1	Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	30	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Eye Irrit. 2
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact)
sensitisation:					Sensitisation)	,
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
, , , , , , , , , , , , , , , , , , ,				typhimurium	Reverse Mutation Test)	3
Germ cell mutagenicity:				Salmonella	(Ames-Test)	Negative
Com con matagornoxy.				typhimurium	(/ 11100 1001)	rioganio
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian	Negative
Germ cen matagementy.				Wiousc	Erythrocyte	ricgative
					Micronucleus Test)	
Germ cell mutagenicity:					OECD 476 (In Vitro	Negative
Germ cen mutagemony.					Mammalian Cell Gene	Negative
0					Mutation Test)	Nicochina
Carcinogenicity:						Negative
Specific target organ toxicity -						STOT SE 3,
single exposure (STOT-SE):						H336
Specific target organ toxicity -						Target organ(s):
repeated exposure (STOT-RE):						liver
Aspiration hazard:						No
Symptoms:						breathing
						difficulties,
						unconsciousness
						, vomiting,
						headaches,
						fatigue,
						dizziness.
						nausea, eyes,
						reddened,
						watering eyes
	1					watering eyes



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Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	5000	ppm	Rat		Vapours

Trizinc bis(orthophosphate)						
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 inhalation:	LC50	>5,7	mg/l/4h	Rat		
Skin corrosion/irritation:						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), Analogous conclusion
Germ cell mutagenicity:						Analogous conclusion, Negative
Carcinogenicity:						Analogous conclusion, Negative
Reproductive toxicity:						Analogous conclusion, Negative
Specific target organ toxicity -						Analogous
single exposure (STOT-SE):						conclusion, No
Specific target organ toxicity - repeated exposure (STOT-RE):						Analogous conclusion, No
Aspiration hazard:						n.a.
Symptoms:						breathing difficulties, fever, headaches,
						stomach pain,
						dizziness,
						nausea and
						vomiting.
Specific target organ toxicity -						Not irritant
single exposure (STOT-SE),						(respiratory
inhalative:						tract).,
						Analogous
						conclusion

Zinc oxide						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>15000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,7	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
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)	Not sensitizising
Germ cell mutagenicity:					(Ames-Test)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative



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Symptoms:		breathing difficulties, chest pain (thorax pain), diarrhoea, fever, joint pain,
		coughing, headaches, circulatory disorders, metal fume fever,
		muscle pains, mucous membrane irritation, nausea
		and vomiting.

Hydrocarbons, C9, aromatics Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3492		Rat	OECD 401 (Acute Oral	Notes
Acute toxicity, by oral route.	LD50	3492	mg/kg	Rai	Toxicity)	
Acute toxicity, by dermal route:	LD50	>3160	mg/kg	Rabbit	OECD 402 (Acute	
, toute texteny, by definial realer		7 0 . 00	9,9		Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,693	mg/l/4h	Rat	OECD 403 (Acute	Analogous
, , , ,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3		Inhalation Toxicity)	conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
,					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact
sensitisation:					Sensitisation)	•
Germ cell mutagenicity:					OECD 471 (Bacterial	Negative
,					Reverse Mutation Test)	· ·
Germ cell mutagenicity:					OECD 475 (Mammalian	Negative
,					Bone Marrow	· ·
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:					OECD 476 (In Vitro	Negative
· .					Mammalian Cell Gene	· ·
					Mutation Test)	
Germ cell mutagenicity:					OECD 479 (Genetic	Negative
					Toxicology - In Vitro	· ·
					Sister Chromatid	
					Exchange assay in	
					Mammalian Cells)	
Carcinogenicity:						Negative
Reproductive toxicity:				Rat	OECD 421	Negative
					(Reproduction/Developm	
					ental Toxicity Screening	
					Test)	
Reproductive toxicity:					OECD 414 (Prenatal	Negative
					Developmental Toxicity	
					Study)	
Reproductive toxicity:					OECD 416 (Two-	Negative
					generation	
					Reproduction Toxicity	
					Study)	
Specific target organ toxicity -						STOT SE 3,
single exposure (STOT-SE):						H335, STOT SE
						3, H336
Specific target organ toxicity -					OECD 408 (Repeated	Negative
repeated exposure (STOT-RE):					Dose 90-Day Oral	
					Toxicity Study in	
					Rodents)	



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Specific target organ toxicity -		OECD 452 (Chronic	Negative
repeated exposure (STOT-RE):		Toxicity Studies)	
Aspiration hazard:			Yes
Symptoms:			respiratory
			distress,
			coughing,
			burning of the
			membranes of
			the nose and
			throat,
			drowsiness,
			dizziness,
			headaches,
			nausea,
			unconsciousness
			, fever, ear
			noises, drying of
			the skin.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>11400	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Sensitising (skin contact)
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (skin contact)
Germ cell mutagenicity:					OECD 472 (Genetic Toxicology - Escherichia coli, Reverse Assay)	Negative
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOEL	540	mg/kg		OECD 416 (Two- generation Reproduction Toxicity Study)	
Reproductive toxicity:				Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Aspiration hazard:						No
Symptoms:						diarrhoea, weight loss
Symptoms:						eyes, reddened, watering eyes

SECTION 12: Ecological information

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

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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.



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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. Other adverse				n.d.a.
effects:				

Dimethyl ether							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC0	96h	2695	mg/l	Pimephales		
					promelas		
12.1. Toxicity to fish:	LC50	96h	3082	mg/l	Salmo gairdneri		
12.1. Toxicity to fish:	LC50	96h	>4,1	mg/l	Poecilia reticulata		
12.1. Toxicity to daphnia:	EC50	48h	>4,4	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	96h	154,9	mg/l	Chlorella vulgaris		
12.2. Persistence and		28d	5	%		OECD 301 D	Not readily
degradability:						(Ready	biodegradable
						Biodegradability -	
						Closed Bottle Test)	
12.3. Bioaccumulative	Log Pow		-0,07				Bioaccumulation
potential:							is unlikely
							(LogPow < 1).
							25°C (pH 7)
12.4. Mobility in soil:	H (Henry)		518,6	Pa*m3/m			No adsorption in
-				ol			soil.
12.5. Results of PBT							No PBT
and vPvB assessment							substance, No
							vPvB substance
Toxicity to bacteria:	EC10		>1600	mg/l	Pseudomonas		
•					putida		
Other information:							Does not contain
							any organically
							bound halogens
							which can
							contribute to the
							AOX value in
							waste water.DIN
							EN 1485
Water solubility:			45.60	mg/l			25°C

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		30d	81-92	%		Regulation (EC) 440/2008 C.4-E (DETERMINATIO N OF 'READY' BIODEGRADABILI TY - CLOSED BOTTLE TEST)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-0,24			OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method)	
12.3. Bioaccumulative potential:	BCF		0,19			,	
12.1. Toxicity to fish:	LC50	96h	5540	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	7500	mg/l	Leuciscus idus		



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12.1. Toxicity to daphnia:	EC50	48h	6100- 12700	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	28d	2212	mg/l	Daphnia pulex	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	8800	mg/l	Daphnia pulex	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.2. Persistence and degradability:		28d	91	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.1. Toxicity to algae:	EC50	48h	4740	mg/l	Pseudokirchneriell a subcapitata		
12.1. Toxicity to algae:	NOEC/NOEL	48h	3400	mg/l	Pseudokirchneriell a subcapitata		
Toxicity to bacteria:	BOD/COD	16h	1700	mg/l	Pseudomonas putida		
Toxicity to bacteria:	EC10	30min	1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:	BOD5		1760- 1900	mg/g			
Other information:	AOX		0	%			
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:							No adsorption in soil.

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.6. Other adverse							Product floats of
effects:							the water
							surface.
12.1. Toxicity to fish:	LC50	96h	18	mg/l	Pimephales	OECD 203 (Fish,	
					promelas	Acute Toxicity	
						Test)	
12.1. Toxicity to daphnia:	EC50	48h	44	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	23	mg/l	Daphnia magna	OECD 211	
						(Daphnia magna	
						Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	397	mg/l	Scenedesmus	OECD 201 (Alga,	
					subspicatus	Growth Inhibition	
10.1 T 1.11 1	1105001051	701			<u> </u>	Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	200	mg/l	Desmodesmus		
1000		00.1		0/	subspicatus	0F0D 004 D	B !!!
12.2. Persistence and		28d	98	%		OECD 301 D	Readily
degradability:						(Ready	biodegradable
						Biodegradability -	
10.0 B			4.05.0.0			Closed Bottle Test)	
12.3. Bioaccumulative potential:	Log Pow		1,85-2,3				Low



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12.5. Results of PBT and vPvB assessment					No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	959	mg/l	Pseudomonas putida	

Xylene							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	86	mg/l	Leuciscus idus		
12.1. Toxicity to fish:	LC50	96h	8,2	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	24h	75,5	mg/l	Daphnia magna		
12.1. Toxicity to algae:	IC50	72h	10	mg/l			
12.2. Persistence and degradability:							Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		>3				
12.3. Bioaccumulative potential:	BCF		0,6-15				

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT	-						No PBT
and vPvB assessment							substance, No
							vPvB substance
12.1. Toxicity to fish:	LC50	96h	1376	mg/l	Pimephales	OECD 203 (Fish,	
					promelas	Acute Toxicity	
						Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	4,1	mg/l	Daphnia magna	OECD 211	
						(Daphnia magna	
						Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	1328	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to algae:	IC50	72h	4787	mg/l	Chlorella vulgaris	OECD 201 (Alga,	
						Growth Inhibition	
						Test)	
12.1. Toxicity to algae:	EC50	96h	225	mg/l	Pseudokirchneriell	OECD 201 (Alga,	
					a subcapitata	Growth Inhibition	
						Test)	
12.2. Persistence and		28d	98	%		OECD 301 B	
degradability:						(Ready	
						Biodegradability -	
						Co2 Evolution	
10.0 5:	DOE		0.40			Test)	1 1 (1 1
12.3. Bioaccumulative	BCF		3,16				calculated value
potential:							Not to be
40.4 Mahilituin aail	V		2.474				expected
12.4. Mobility in soil:	Koc		3,471				calculated
Taviaity to bacteria:	EC10	17h	2476	ma/I	Pseudomonas	DIN 20442 T 0	value20°C
Toxicity to bacteria:	EC10	170	24/6	mg/l	putida	DIN 38412 T.8	References

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to bacteria:	EC10	16h	1050	mg/l	Pseudomonas		
· ·					putida		
12.1. Toxicity to daphnia:	EC50	16d	141	mg/l	Daphnia magna		
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Leuciscus idus		
12.1. Toxicity to fish:	LC50	96h	1400	mg/l	Lepomis		
					macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	2285	mg/l	Daphnia magna		



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12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		21d	95	%	Subspicatus	OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:			99,9	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method)	Slight
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Koc		1,1				Expert judgement
Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge		
Other information:	ThOD		2,4	g/g			
Other information:	BOD5		53	%			
Other information:	COD		96	%			References
Other information:	COD		2,4	g/g			
Other information:	BOD		1171	mg/g			

Trizinc bis(orthophosphate)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,09	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	0,177	mg/l	Oncorhynchus mykiss	U.S. EPA ECOTOX Database	
12.1. Toxicity to daphnia:	EC50	48h	28,2	mg/l	Daphnia magna		
12.1. Toxicity to algae:	ErC50	72h	11	mg/l	Desmodesmus subspicatus		
12.1. Toxicity to algae:	EC50	72h	0,136- 0,15	mg/l	Selenastrum capricornutum		Analogous conclusion
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	4h	0,1	mg/l	activated sludge		Analogous conclusion

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,1-2,5	ppm	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	3,31- 8,062	mg/l	Brachydanio rerio		
12.1. Toxicity to fish:	LC50	96h	>320	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	



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12.1. Toxicity to daphnia:	EC50	48h	0,413	mg/l	Ceriodaphnia	U.S. EPA	
					spec.	ECOTOX	
						Database	
12.1. Toxicity to algae:	EC50	72h	0,17	mg/l	Selenastrum		
					capricornutum		
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,017	mg/l	Pseudokirchneriell		
					a subcapitata		
12.1. Toxicity to algae:	EC50	72h	0,136	mg/l	Scenedesmus	OECD 201 (Alga,	
					quadricauda	Growth Inhibition	
						Test)	
12.2. Persistence and						·	Readily
degradability:							biodegradable
12.4. Mobility in soil:			158,5	L/kg			

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	9,2	mg/l	Oncorhynchus	OECD 203 (Fish,	
					mykiss	Acute Toxicity	
						Test)	
12.1. Toxicity to daphnia:	EC50	48h	3,2	mg/l	Daphnia magna	OECD 202	
					'	(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to algae:	ErL50	72h	2,9	mg/l	Pseudokirchneriell	OEĆD 201 (Alga,	
, ,					a subcapitata	Growth Inhibition	
						Test)	
12.2. Persistence and		28d	54-56	%		OECD 301 B	
degradability:						(Ready	
,						Biodegradability -	
						Co2 Evolution	
						Test)	
12.2. Persistence and		28d	78	%		OEĆD 301 E	Readily
degradability:						(Ready	biodegradable
ğ ,						Biodegradability -	· ·
						Modified OECD	
						Screening Test)	
12.2. Persistence and		28d	78	%		OECD 301 F	
degradability:						(Ready	
						Biodegradability -	
						Manometric	
						Respirometry Test)	
12.3. Bioaccumulative ootential:	Log Pow		3,7 - 4,5				
12.5. Results of PBT							No PBT
and vPvB assessment							substance, No
							vPvB substanc

Reaction product: bisph	Reaction product: bisphenol-A-(epichlorhydrin)						
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No
							vPvB substance
12.1. Toxicity to algae:	NOEC/NOEL	72h	2,4	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	LC50	96h	2	mg/l	Leuciscus idus	,	
12.1. Toxicity to fish:	LC50	96h	1,5	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	



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12.1. Toxicity to daphnia:	EC50	48h	1,1	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
10.1 - 1.11	11050/11051					Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,3	mg/l	Daphnia magna	OECD 211	
						(Daphnia magna	
						Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	9,4	mg/l	Selenastrum	U.S. EPA	
					capricornutum	ECOTOX	
40.4 T : ''	E050	0.01	000	4	0 1	Database	
12.1. Toxicity to algae:	EC50	96h	220	mg/l	Scenedesmus		
40.0 Danistanas and		00-1	_	%	subspicatus	OECD 301 F	N1 - 4
12.2. Persistence and		28d	5	%			Not readily
degradability:						(Ready	biodegradable
						Biodegradability - Manometric	
12.3. Bioaccumulative	Log Pow		3,242			Respirometry Test) Regulation (EC)	
potential:	Log Fow		3,242			440/2008 A.8	
poteritiai.						(PARTITION	
						COEFFICIENT)	
Other information:			 			OOLI I IOILINI)	Contains
Outer information.							organically
							bound halogens,
							which may
							contribute to the
							AOX value in
							wastewater.
Toxicity to bacteria:	IC50	3h	>100	mg/l	activated sludge	-	

SECTION 13: Disposal considerations

13.1 Waste treatment methods For the substance / mixture / residual amounts

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)

16 05 04 gases in pressure containers (including halons) containing hazardous substances Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging

SECTION 14: Transport information

2.1

General statements

14.1. UN number: 1950

Transport by road/by rail (ADR/RID) 14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es):





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14.4. Packing group:

Classification code:

LQ:

1 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS (TRIZINC BIS(ORTHOPHOSPHATE), ZINC OXIDE)

EmS: F-D, S-U Marine Pollutant: Yes

14.5. Environmental hazards: environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es):
2.1
14.4. Packing group:

14.5. Environmental hazards:

Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

	-		
Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of
		dangerous substances as	dangerous substances as
		referred to in Article 3(10) for the	referred to in Article 3(10) for the
		application of - Lower-tier	application of - Upper-tier
		requirements	requirements
E2		200	500
P3b	11.1, 11.2	5000 (netto)	50000 (netto)

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

REGULATION (EC) No 648/2004

n.a

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

84,71 %







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Revised sections:

8

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

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

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.
Aerosol 1, H222	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

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.

H220 Extremely flammable gas.

Eye Irrit. — Eye irritation

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aerosol — Aerosols

Flam. Gas — Flammable gases - Flammable gas

Flam. Liq. — Flammable liquid Acute Tox. — Acute toxicity - inhalation

Acute Tox. — Acute toxicity - dermal

Skin Irrit. — Skin irritation

Acute Tox. — Acute toxicity - oral

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Eye Dam. — Serious eye damage

Aquatic Acute — Hazardous to the aquatic environment - acute

Asp. Tox. — Aspiration hazard

Skin Sens. — Skin sensitization

Any abbreviations and acronyms used in this document:

according, according to

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



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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)

BSEF The International Bromine Council

bw body weight

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

dw dry weight

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

EC European Community
ECHA European Chemicals Agency
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)

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

IARC International Agency for Research on Cancer 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)

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

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

OECD Organisation for Economic Co-operation and Development

org. organic

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. 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

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative



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wet weight wwt

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: Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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