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

Revision date / version: 23.03.2018 / 0015

Replacing version dated / version: 28.02.2018 / 0014

Valid from: 23.03.2018 PDF print date: 29.03.2018 KUEHLER DICHTER 150 mL

Art.: 3330

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

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

1.1 Product identifier

KUEHLER DICHTER 150 mL

Art.: 3330

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

Sector of use [SU]:

SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 - Consumer uses: Private households (=general public = consumers)

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]: PC16 - Heat transfer fluids

Process category [PROC]:

PROC 1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC 2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC 8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC20 - Use of functional fluids in small devices

Article Categories [AC]:

AC99 - Not required.

Environmental Release Category [ERC]:

ERC 4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC 7 - Use of functional fluid at industrial site

ERC 9a - Widespread use of functional fluid (indoor)

ERC 9b - Widespread use of functional fluid (outdoor)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany Phone:(+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



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STOT RE

H373-May cause damage to organs through prolonged or repeated exposure if swallowed (kidneys).

2.2 Label elements Labeling according to Regulation (EC) 1272/2008 (CLP)



Warning

H373-May cause damage to organs through prolonged or repeated exposure if swallowed (kidneys).

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

P314-Get medical advice / attention if you feel unwell.

P501-Dispose of contents / container to special waste collection point.

Ethanediol

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

3.1 Substance

n.a. 3.2 Mixture

0.2	
Ethanediol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119456816-28-XXXX
Index	603-027-00-1
EINECS, ELINCS, NLP	203-473-3
CAS	107-21-1
content %	10-<20
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302
	STOT RE 2, H373 (kidneys) (oral)

Disodium tetraborate pentahydrate	SVHC-substance
Registration number (REACH)	
Index	005-011-02-9
EINECS, ELINCS, NLP	215-540-4
CAS	12179-04-3
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Repr. 1B. H360FD

1836-27-XXXX
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Index	007-010-00-4
EINECS, ELINCS, NLP	231-555-9
CAS	7632-00-0
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Ox. Sol. 3, H272
	Acute Tox. 3, H301
	Eye Irrit. 2, H319
	Aquatic Acute 1, H400 (M=1)

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

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

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult 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.

If applicable

Induce vomiting.

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.

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

Product is not combustible.

Adapt to the nature and extent of fire.

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

5.3 Advice for firefighters

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

Protective respirator with independent air supply.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unprotected persons away.



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Ensure sufficient supply of air. Avoid contact with eyes or skin. If applicable, caution - risk of slipping.

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.

6.3 Methods and material for containment and cleaning up

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 contact with eyes or skin.

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.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Do not store with oxidizing agents.

Store in a well ventilated place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Ethanediol				Content %:10- <20
WEL-TWA: 10 mg/m3 (particulate),	52 mg/m3	WEL-STEL: 104 mg/m3 (vapour	r) (WEL), 40 ppm		
(vapour) (WEL), 20 ppm (52 mg/m3)	(EU)	(104 mg/m3) (EU)			
Monitoring procedures:	-	Compur - KITA-232 SA (502 342)			
	-	Compur - KITA-232 SB (550 267)			
	-	Draeger - Ethylene Glycol 10 (5) (81	01 351)		
	-	NIOSH 5523 (Glycols) - 1996			
		OSHA PV2024 (Ethylene glycol) - 19	999 - EU project BC/CE	EN/ENTR/	000/2002-16 card
	-	11-2 (2004)			
BMGV:			Other information: S	Sk (particul	ate, vapour)
Chemical Name	Disodium tetrab	orate pentahydrate			Content %:0,1-<1

Chemical Name	Disodium tetraborate pentahydrate		Content %:0,1-<1
WEL-TWA: 1 mg/m3	WEL-STEL:		
Monitoring procedures:			
BMGV:		Other information:	



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"Arbeitsplatzgrenzwert" (workplace limit value, Germany).

- (8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/EU). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (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. 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.

8.2 Exposure controls

Ethanediol						
Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment		DNEO	40	//	
	Environment - freshwater		PNEC	10	mg/l	
	Environment - marine		PNEC	1	mg/l	
	Environment - sediment		PNEC	20,9	mg/kg	
	Environment - soil		PNEC	1,53	mg/kg	
	Environment - sewage treatment plant		PNEC	199,5	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	37	mg/kg dry weight	
	Environment - sediment, marine		PNEC	3,7	mg/kg dry weight	
Consumer	Human - inhalation	Long term, local effects	DNEL	7	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	53	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	35	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	106	mg/kg	

Sodium nitrite						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,0054	mg/l	
	Environment - marine		PNEC	0,00616	mg/l	
	Environment - sewage treatment plant		PNEC	21	mg/l	
	Environment - sediment, freshwater		PNEC	0,019	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,022	mg/kg dry weight	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	2	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2	mg/m3	

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. BS EN 14042.

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



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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:

Rubber gloves (EN 374).

Protective nitrile gloves (EN 374)

Minimum layer thickness in mm:

0,35

Permeation time (penetration time) in minutes:

> 480

Protective hand cream recommended.

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

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

Skin protection - Other:

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

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

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: Liquid

Colour: According to specification

Odour: Slightly
Odour threshold: Not determined

pH-value:

Not determined

Melting point/freezing point:

Not determined Initial boiling point and boiling range:

Not determined

Flash point:

Evaporation rate: Not determined Flammability (solid, gas): n.a.

Lower explosive limit:

Upper explosive limit:

Vapour pressure:

Vapour density (air = 1):

Not determined

Not determined

Not determined

Not determined



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Density: 1,05 g/ml (20°C)

Bulk density:

Solubility(ies):

Not determined
Water solubility:

Mixable

Water solubility: Mixable Partition coefficient (n-octanol/water): Mixable Not determined

Auto-ignition temperature:

Decomposition temperature:

Viscosity:

Not determined

Not determined

130 mm2/s (40°C)

Explosive properties: Product is not explosive.

Oxidising properties: No

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Not determined

Not determined

Surface tension:

Not determined

Not determined

Not determined

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

None known

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 toxicological effects

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

KUEHLER DICHTER 150 mL Art.: 3330 Toxicity / effect Endpoint Value Unit Organism Test method Notes Acute toxicity, by oral route: >2000 mg/kg calculated value 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.

Ethanediol							
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes	
Acute toxicity, by oral route:	LD50	1600	mg/kg	Human being			



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Acute toxicity, by dermal route:	LD50	9530	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>3500	mg/kg	Mouse		
Skin corrosion/irritation:				Rabbit		Slightly irritant
Serious eye damage/irritation:				Rabbit		Slightly irritant
Respiratory or skin				Human being	(Patch-Test)	Negative
sensitisation:						
Germ cell mutagenicity:					OECD 471 (Bacterial	Negative
					Reverse Mutation Test)	
Symptoms:						ataxia, breathing
						difficulties,
						unconsciousness
						, cramps, fatigue

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3200-3400	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>2	mg/l/4h	Rat	OECD 403 (Acute	
					Inhalation Toxicity)	
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:				Human being		Not irritant
Serious eye damage/irritation:				Rabbit		Mild irritant
Respiratory or skin				Guinea pig	OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	
Symptoms:						breathing
						difficulties,
						headaches,
						gastrointestinal
						disturbances,
						dizziness,
						nausea

Sodium nitrite	Sodium nitrite								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes			
Acute toxicity, by oral route:	LD50	180	mg/kg	Rat					
Acute toxicity, by inhalation:	LC50	5,5	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	Slightly irritant,			
					Irritation/Corrosion)	Eye Irrit. 2			
Symptoms:						breathing			
						difficulties,			
						abdominal pain,			
						unconsciousness			
						, drop in blood			
						pressure,			
						annoyance,			
						disturbed heart			
						rhythm, collapse,			
						headaches,			
						mucous			
						membrane			
						irritation,			
						dizziness,			
						nausea and			
						vomiting.			

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.
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:							

Ethanediol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		10h	90-100	%		OECD 301 A	
						(Ready	
						Biodegradability -	
						DOC Die-Away	
						Test)	
Toxicity to bacteria:	EC20	30min	>1995	mg/l	activated sludge	OECD 209	
						(Activated Sludge,	
						Respiration	
						Inhibition Test	
						(Carbon and	
						Ammonium	
						Oxidation))	
12.1. Toxicity to fish:	LC50	96h	>10000	mg/l	Pimephales	IUCLID Chem.	
rexuenty to me		00	1 .000		promelas	Data Sheet (ESIS)	
12.1. Toxicity to fish:	NOEC/NOEL	7d	15380	mg/l	Pimephales	U.S. EPA	
12.11 Toxiony to norn	11020/11022	1 "	10000	1119/1	promelas	ECOTOX	
					promoteo	Database	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202	
					1 1 1 1 1 1	(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL		8590	mg/l	Daphnia magna	U.S. EPA	
						ECOTOX	
						Database	
12.1. Toxicity to algae:	EC50	96h	6500-	mg/l	Pseudokirchneriell		
			7500		a subcapitata		
12.1. Toxicity to algae:	IC5	7d	> 10000	mg/l	Scenedesmus		
, , , , ,					quadricauda		
12.2. Persistence and		28d	56	%		OECD 301 C	
degradability:						(Ready	
J ,						Biodegradability -	
						Modified MITI	
						Test (I))	
12.3. Bioaccumulative	Log Pow		-1,36			```	Not to be
potential:	_						expected
Toxicity to bacteria:	EC50	16h	>10000	mg/l	Pseudomonas	IUCLID Chem.	
					putida	Data Sheet (ESIS)	

Sodium nitrite							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,54-	mg/l	Oncorhynchus		
			26,3		mykiss		



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12.1. Toxicity to daphnia:	EC50	48h	15,4	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute
						Immobilisation Test)
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)
Toxicity to bacteria:	EC10	3h	210	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and
						Ammonium Oxidation))

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)

07 07 01 aqueous washing liquids and mother liquors

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

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

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Classification code:n.a.LQ:n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Marine Pollutant:n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

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

14.5. Environmental hazards: Not applicable



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14.6. Special precautions for user

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

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

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:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Regulation (EC) No 1907/2006, Annex XVII

Disodium tetraborate pentahydrate

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

0 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

15

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	Evaluation method used			
(EC) No. 1272/2008 (CLP)				
STOT RE 2, H373	Classification according to calculation procedure.			

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).

H272 May intensify fire, oxidiser.

H360FD May damage fertility. May damage the unborn child.

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

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

STOT RE — Specific target organ toxicity - repeated exposure

Acute Tox. — Acute toxicity - oral

Repr. — Reproductive toxicity

 ${\sf Ox.\ Sol.-Oxidising\ solid}$

Eye Irrit. — Eye irritation

Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists



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

Revision date / version: 23.03.2018 / 0015

Replacing version dated / version: 28.02.2018 / 0014

Valid from: 23.03.2018 PDF print date: 29.03.2018 KUEHLER DICHTER 150 mL

Art.: 3330

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the

International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

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

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol) BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

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

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

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

EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
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)

ERC Environmental Release Categories

ES Exposure scenario etc. et cetera

EU European Union EWC European Waste Catalogue

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential IARC International Agency for Research on Cancer IATA International Air Transport Association

IBC Intermediate Bulk Container

IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform ChemicaL Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill LCLo lowest published lethal concentration

LD Lethal Dose of a chemical



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Art.: 3330

LD50 Lethal Dose, 50% kill LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Concentra

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

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAECNo Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level NOEC No Observed Effect Concentration NOEL No Observed Effect Level

NOEL No Observed Effect Level
ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential

ppm parts per million PROC Process category PTFE Polytetrafluorethylene

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)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

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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