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

Revision date / version: 01.11.2021 / 0013

Replacing version dated / version: 27.02.2020 / 0012

Valid from: 01.11.2021 PDF print date: 01.11.2021

Torwol A

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

1.1 Product identifier

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

Floor cleaner

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

DREITURM GmbH

Postach 11 40

36392 Steinau an der Straße Tel.: +49 (0) 66 63 / 970 - 0 Fax: +49 (0) 66 63 / 970 - 490

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:

+1 872 5888271 (DTR)

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

Eye Dam. 1 H318-Causes serious eye damage. Met. Corr. 1 H290-May be corrosive to metals.

Skin Corr. 1 H314-Causes severe skin burns and eye damage.

2.2 Label elements

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



Danger



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H290-May be corrosive to metals. H314-Causes severe skin burns and eye damage.

P260-Do not breathe vapours or spray. P280-Wear protective gloves / protective clothing and eye protection / face protection. P301+P330+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310-Immediately call a POISON CENTER / doctor.

Potassium hydroxide

2.3 Other hazards

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

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

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

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a. 3.2 Mixtures

3.2 WIXTUIES	
(2-methoxymethylethoxy)propanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119450011-60-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	252-104-2
CAS	34590-94-8
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP), M-	
factors	

Potassium hydroxide	
Registration number (REACH)	
Index	019-002-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	215-181-3
CAS	1310-58-3
content %	0,1-<0,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-	Met. Corr. 1, H290
factors	Acute Tox. 4, H302
	Skin Corr. 1A, H314
	Eye Dam. 1, H318
Specific Concentration Limits and ATE	Skin Corr. 1A, H314: >=5 %
	Skin Corr. 1B, H314: >=2 %
	Skin Irrit. 2, H315: >=0,5 %
	Eye Irrit. 2, H319: >=0,5 %

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



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4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

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

Inhalation

Remove person from danger area.

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.

Cauterizations not treated lead to wounds difficult to heal.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - 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.

The following may occur:

Corrosive burns on skin as well as mucous membrane possible.

Necrosis

Risk of serious damage to eyes.

Corneal damage.

Danger of blindness.

Ingestion:

Pain in the mouth and throat

Gastrointestinal disturbances

Oesophageal perforation

Gastric perforation

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

There should be an eyewash station and safety shower located near the area of use.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

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

Oxides of phosphorus

Toxic pyrolysis products.

5.3 Advice for firefighters

For personal protective equipment see Section 8.

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.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures



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6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

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

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

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

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

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

Prevent from entering drainage system.

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

6.3 Methods and material for containment and cleaning up

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

Neutralising is possible (only from a specialist).

Diluting with water is possible.

Flush residue using copious water.

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 acids.

Do not use alkali sensitive materials.

Alkali-resistant floor necessary.

Protect from frost.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters



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Chemical Name	(2-methoxymethylethoxy)propanol		Content %:1-5
WEL-TWA: 50 ppm (308 mg/m;	7 7 7/1 1		
Monitoring procedures:			
BMGV:		Other information:	Sk (WEL)
©B Chemical Name	Potassium hydroxide		Content %:0,1- <0,5
WEL-TWA:	WEL-STEL: 2 m	g/m3	
Monitoring procedures:	particulate matter by - Spectrometry), Part 1 - NIOSH 7401 (Alkalin OSHA ID-121 (Metal	ce air - Determination of metals an Inductively Coupled Plasma Atom I-3 - 2012(Part 1), 2012(Part 2), 20 e dusts) - 1994 and metalloid particulates in work - 2002 - EU project BC/CEN/ENTF	ic Emission 004 (Part 3) place atmospheres
BMGV:	·	Other information: -	

(2-methoxymethylethox	y)propanol					
Area of application	Exposure route /	Effect on health	Descripto	Value	Unit	Note
	Environmental		r			
	compartment					
	Environment - freshwater		PNEC	19	mg/l	
	Environment - marine		PNEC	1,9	mg/l	
	Environment - periodic release		PNEC	190	mg/l	
	Environment - sewage treatment plant		PNEC	4168	mg/l	
	Environment - sediment, marine		PNEC	7,02	mg/kg dry weight	
	Environment - sediment, freshwater		PNEC	70,2	mg/kg dry weight	
	Environment - soil		PNEC	2,74	mg/kg dry weight	
Consumer	Human - dermal	Long term, systemic effects	DNEL	15	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	37,2	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,67	mg/kg	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	65	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	308	mg/m3	

Potassium hydroxide												
Area of application	Exposure route / Environmental compartment	Effect on health	Descripto r	Value	Unit	Note						
Consumer	Human - inhalation	Long term, local effects	DNEL	1	mg/m3							
Workers / employees	Human - inhalation	Long term, local effects	DNEL	1	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



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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).

If applicable

Face protection (EN 166).

Skin protection - Hand protection:

Use alkali resistant protective gloves (EN ISO 374).

If applicable

Protective gloves made of butyl (EN ISO 374).

Protective Neoprene® / polychloroprene gloves (EN ISO 374).

Protective nitrile gloves (EN ISO 374).

Minimum layer thickness in mm:

0.4

Permeation time (penetration time) in minutes:

>480

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

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

Protective hand cream recommended.

Skin protection - Other:

Alkali-resistant protection clothing (EN 13034)

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:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

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.



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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: Colourless, Light yellow

Odour: Glycol

Melting point/freezing point: There is no information available on this parameter.

Boiling point or initial boiling point and boiling range: There is no information available on this parameter.

Flammability: Not combustible.

Lower explosion limit: n.a. Upper explosion limit: n.a. Flash point: n.a.

Auto-ignition temperature: There is no information available on this parameter. Decomposition temperature: There is no information available on this parameter.

Kinematic viscosity: There is no information available on this parameter.

Solubility: Soluble

Partition coefficient n-octanol/water (log value): Does not apply to mixtures.

There is no information available on this parameter. Vapour pressure:

Density and/or relative density: 1,0606 g/ml

Relative vapour density: There is no information available on this parameter.

Particle characteristics: Does not apply to liquids.

9.2 Other information

Explosives: There is no information available on this parameter. Oxidising liquids: There is no information available on this parameter.

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 decomposition if used as intended.

10.4 Conditions to avoid

None known

10.5 Incompatible materials

Avoid contact with strong acids.

Avoid contact with alkali sensitive materials.

Avoid contact with certain metals e.g. aluminium (development of hydrogen gas possible).

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

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

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	-					n.d.a.
Acute toxicity, by dermal						n.d.a.
route:						
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye						n.d.a.
damage/irritation:						
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.

(2-methoxymethylethoxy)pro						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	7500	mg/kg	Dog		
Acute toxicity, by oral route:	LD50	5130	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>9500	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	55-60	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Drying of the skin., Not irritant
Skin corrosion/irritation:				Human being		Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:				Human being		No (skin contact)
Symptoms:						may cause headaches and vertigo., drowsiness, drowsiness

Potassium hydroxide											
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes					
Acute toxicity, by oral route:	LD50	333-388	mg/kg	Rat	OECD 425 (Acute	1 week					
					Oral Toxicity - Up-and-	observation					
					Down Procedure)						
Skin corrosion/irritation:						Skin Corr. 1A					
Serious eye				Rabbit	OECD 405 (Acute	Corrosive					
damage/irritation:					Eye						
_					Irritation/Corrosion)						

11.2. Information on other hazards

Torwol A						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Other information:	-					Classification
						based on the
						pH value.
Endocrine disrupting						Does not apply
properties:						to mixtures.



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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							n.d.a.
daphnia:							
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.
12.7. Other adverse							No information
effects:							available on
							other adverse
							effects on the
							environment.
Other information:							According to
							the recipe,
							contains no
							AOX.

(2-methoxymethylethoxy)propanol										
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	>1000	mg/l	Poecilia reticulata	OECD 203				
						(Fish, Acute				
						Toxicity Test)				
12.1. Toxicity to	NOEC/NOEL	22d	>0,5	mg/l	Daphnia magna	OECD 211				
daphnia:						(Daphnia magna				
						Reproduction				
						Test)				
12.1. Toxicity to	EC50	48h	1919	mg/l	Daphnia magna	OECD 202				
daphnia:						(Daphnia sp.				
						Acute				
						Immobilisation				
						Test)				
12.1. Toxicity to algae:	ErC50	96h	>969	mg/l	Pseudokirchnerie	OECD 201				
					lla subcapitata	(Alga, Growth				
						Inhibition Test)				
12.2. Persistence and		28d	75-79	%		OECD 301 F	Readily			
degradability:						(Ready	biodegradable			
						Biodegradability -				
						Manometric				
						Respirometry				
						Test)				



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12.3. Bioaccumulative potential:	Log Pow		0,004- 1,01			OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method)	
12.3. Bioaccumulative potential:	BCF		<100				
12.4. Mobility in soil:	Koc		0,28				High
Toxicity to bacteria:	EC10	18h	4168	mg/l	Pseudomonas putida		

Potassium hydroxide								
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes	
12.1. Toxicity to fish:	LC50	96h	80	mg/l	Gambusia affinis			
12.1. Toxicity to fish:	LC50	24h	165	mg/l	Poecilia reticulata			
12.2. Persistence and							Not relevant for	
degradability:							inorganic	
							substances.	
12.3. Bioaccumulative							Not to be	
potential:							expected	
Toxicity to bacteria:	EC50	15min	22	mg/l	Photobacterium			
					phosphoreum			

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 06 01 aqueous washing liquids and mother liquors

20 01 29 detergents containing hazardous substances

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.

Recommended cleaner:

Water

15 01 02 plastic packaging

SECTION 14: Transport information

C5

General statements

14.1. UN number or ID number: 1814

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1814 POTASSIUM HYDROXIDE, SOLUTION, MIXTURE

14.3. Transport hazard class(es): 8 14.4. Packing group: Ш

Classification code:





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LQ: 5 L

14.5. Environmental hazards:

Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

POTASSIUM HYDROXIDE SOLUTION, MIXTURE

14.3. Transport hazard class(es):814.4. Packing group:IIIEmS:F-A, S-BMarine Pollutant:n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name: Potassium hydroxide, solution mixture

14.3. Transport hazard class(es):

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. Maritime transport in bulk according to IMO instruments

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 trade association/occupational health regulations.

Directive 2010/75/EU (VOC): ~ 2,5 %

National rules/regulation for the compliance with maximum quantities with regard to phosphates and or phosphorous compounds must be observed and complied with.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

1-16

Revised sections:

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 Dam. 1, H318	Classification based on the pH value.
Met. Corr. 1, H290	Classification based on test data.







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Torwol A

Skin Corr. 1, H314

Classification based on the pH value.

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).

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Eye Dam. — Serious eye damage

Met. Corr. — Substance or mixture corrosive to metals

Skin Corr. — Skin corrosion
Acute Tox. — Acute toxicity - oral

Key literature references and sources for data:

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

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

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

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

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

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

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

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

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

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

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

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

BCF Bioconcentration factor

BSEF The International Bromine Council

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

DOC Dissolved organic carbon

dw dry weight

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

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

EC European Community

ECHA European Chemicals Agency

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

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms



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Torwol A

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

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

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer

IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLIDInternational Uniform Chemical Information Database

IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

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

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil

Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data availableNLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

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

REACH Registration, 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

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

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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