

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
10213-79-3	Disodium metasilicate pentahydrat			
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	1,49 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,55 mg/m³
Worker DNEL, long-term		inhalation	systemic	6,22 mg/m³
1310-73-2	Sodium hydroxide; caustic soda			
Worker DNEL, long-term		inhalation	local	1 mg/m³
Consumer DNEL, long-term		inhalation	local	1 mg/m³
22042-96-2	Phosphonate			
Consumer DNEL, long-term		oral	systemic	1,9 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	1,9 mg/kg bw/day

PNEC values

CAS No	Substance	Value
10213-79-3	Disodium metasilicate pentahydrat	
Freshwater		7,5 mg/l
Marine water		1 mg/l
Micro-organisms in sewage treatment plants (STP)		1000 mg/l
22042-96-2	Phosphonate	
Freshwater		0,52 mg/l
Marine water		0,052 mg/l
Freshwater sediment		108 mg/kg
Marine sediment		10,8 mg/kg
Micro-organisms in sewage treatment plants (STP)		20 mg/l
Soil		174 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Refer to chapter 7. No further action is necessary.

Protective and hygiene measures

Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work.

Eye/face protection

Wear eye/face protection.

Hand protection

Suitable material: PE (polyethylene). CR (polychloroprenes, Chloroprene rubber). NBR (Nitrile rubber). Butyl rubber. FKM (Fluoroelastomer (Viton)).

Tested protective gloves are to be worn: EN 374

Skin protection

Skin protection: not required.

Respiratory protection

Respiratory protection not required.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: clear, yellow
Odour: like: Ammonia

Test method

pH-Value (at 20 °C): 12,5 (conc.) 10,7 (1 %) DGF H-III 1

Changes in the physical state

Melting point: -6 °C
Initial boiling point and boiling range: >100 °C
Flash point: ---

Explosive properties

not Explosive.

Oxidizing properties

not oxidizing.

Density (at 20 °C): 1,08 g/cm³ DIN 12791

Water solubility: complete miscible

SECTION 10: Stability and reactivity

10.1. Reactivity

Exothermic reactions with: acid, concentrated.

10.2. Chemical stability

The product is chemically stable under normal ambient conditions.

10.3. Possibility of hazardous reactions

None, in case of proper use.

10.4. Conditions to avoid

Thermal decomposition can lead to the escape of irritating gases and vapors.

10.5. Incompatible materials

acid, concentrated.

10.6. Hazardous decomposition products

None, in case of proper use.

Further information

Do not mix with other products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
497-19-8	sodium carbonate				
	oral	LD50 mg/kg	4090	Rat	IUCLID
10213-79-3	Disodium metasilicate pentahydrat				
	oral	LD50 mg/kg	1349	rat	
	dermal	LD50 mg/kg	5000	rat	
1310-73-2	Sodium hydroxide; caustic soda				
	oral	LD50 mg/kg	2000	rat	
22042-96-2	Phosphonate				
	oral	LD50 mg/kg	>5000	Ratte	
	dermal	LD50 mg/kg	>5000	Kaninchen	

Irritation and corrosivity

Causes skin irritation.
 Causes serious eye damage.
 Risk of serious damage to eyes.
 Irritant effect on the skin: irritant.

Sensitising effects

Based on available data, the classification criteria are not met.
 no danger of sensitization.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge. due to the alkaline character of the product, usually, it has to be neutralized before contaminated effluents are introduced into the waste water treatment system.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50 300 mg/l	96 h	Lepomis macrochirus		
	Acute crustacea toxicity	EC50 265 mg/l	48 h	Daphnia magna	IUCLID	
10213-79-3	Disodium metasilicate pentahydrat					
	Acute fish toxicity	LC50 3185 mg/l	96 h			
	Acute crustacea toxicity	EC50 1700 mg/l	48 h	Daphnia magna		
1310-73-2	Sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 125 mg/l	96 h	Gambusia affinis	SDB Lieferant	
	Acute crustacea toxicity	EC50 40,4 mg/l	48 h	Ceriodaphnia	ECHA	

12.2. Persistence and degradability

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

On the basis of existing data about disposal/decomposition and bio-accumulation potential, long term environmental damage is unlikely.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

not applicable

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste disposal number of waste from residues/unused products

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

Waste disposal number of used product

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

Contaminated packaging

Completely emptied packings can be re-cycled.

SECTION 14: Transport information

Other applicable information

Not a hazardous material with respect to transportation regulations.

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): 0 % (0 g/l)

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Data changed from previous versions: 2.1., 3.2., 8.1., 9.1., 11.1., 12.1., 12.2., 13.1., 15.1., 16.

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

Further Information

Training instructions: Notice the directions for use on the label.

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	EM-303	IS, PW	0	35	8a, 9, 13	8a	0	26	

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)