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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
62-56-6	thiocarbamide, thiourea			
Consumer DNEL, long-term		oral	systemic	0,1 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	3,4 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	1,7 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	1 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	0,2 mg/m ³
7664-38-2	Phosphoric acid ... %; orthophosphoric acid			
Worker DNEL, long-term		inhalation	systemic	10,7 mg/m ³
Worker DNEL, long-term		inhalation	local	1 mg/m ³
Worker DNEL, acute		inhalation	local	2 mg/m ³

PNEC values

CAS No	Substance	Value
62-56-6	thiocarbamide, thiourea	
Freshwater		0,01 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,0725 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,38 mg/l
Soil		2,725 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
 Colour: clear, light yellow
 Odour: characteristic

pH-Value (at 20 °C):

Changes in the physical state

Test method

1,3 DGF H-III 1

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Melting point: -10 °C
 Initial boiling point and boiling range: >100 °C
 Flash point: ---

Explosive properties
 not Explosive.

Oxidizing properties
 not oxidizing.

Density (at 20 °C): 1,038 g/cm³ DIN 12791
 Water solubility: complete miscible

SECTION 10: Stability and reactivity

10.1. Reactivity

None, in case of proper use.

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

Alkalis (alkalis), concentrated. Alkali metals.

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.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
62-56-6	thiocarbamide, thiourea				
	oral	LD50 mg/kg 1750	rat		
	dermal	LD50 mg/kg 2800	rabbit		
5949-29-1	Citric acid				
	oral	LD50 mg/kg 5400	mouse		OECD 401
	dermal	LD50 mg/kg >2000	rat		
68439-50-9	C12-C14 Fatty alcohol ethoxylate				
	oral	LD50 mg/kg >2000	rat		Cesio-Recommendation
12645-31-7	Phosphoric acid-2 ethylhexylester				
	oral	LD50 mg/kg >2000	Ratte		

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Irritation and corrosivity

Based on available data, the classification criteria are not met.
 Irritant effect on the eye: irritant. 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

Suspected of causing cancer. (thiocarbamide, thiourea)
 Suspected of damaging the unborn child. (thiocarbamide, thiourea)
 Germ cell mutagenicity: Based on available data, the classification criteria are not met.
 Limited evidence of a carcinogenic effect.

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

Harmful to aquatic organisms.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
62-56-6	thiocarbamide, thiourea					
	Acute fish toxicity	LC50 >10 mg/l	96 h	Leuciscus idus		
	Acute crustacea toxicity	EC50 1,8 mg/l	48 h	Daphnia magna		
	Crustacea toxicity	NOEC 0,25 mg/l	21 d			
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50 138 mg/l	96 h	Gambusia affinis		
	Acute algae toxicity	ErC50 >100 mg/l	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 >100 mg/l	48 h	Gambia magna		
5949-29-1	Citric acid					
	Acute fish toxicity	LC50 440 mg/l	96 h	Leuciscus idus		OECD 203
	Acute crustacea toxicity	EC50 1535 mg/l	48 h	Daphnia magna		
68439-50-9	C12-C14 Fatty alcohol ethoxylate					
	Algea toxicity	NOEC <1 mg/l				
12645-31-7	Phosphoric acid-2 ethylhexylester					
	Acute fish toxicity	LC50 189-355 mg/l	96 h	Danio rerio		

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.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
5949-29-1	Citric acid			
	OECD 302 B	>98 %	2	
	easily biodegradable			
68439-50-9	C12-C14 Fatty alcohol ethoxylate			
	OECD 301F	>60 %	28	
	easily biodegradable			
12645-31-7	Phosphoric acid-2 ethylhexylester			
	OECD 301 B	>60 %		
	easy biodegradable			
	OECD 302 B	74 %	28	
	OECD 301 D	82 %	21	

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 according to official state regulations.

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

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

EU regulatory information

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

National regulatory information

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Water contaminating class (D): 3 - highly 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
Carc. 2; H351	Calculation method
Repr. 2; H361d	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful 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-100	IS, PW	0	35	8a, 9, 13	8b	0	26	

LCS: Life cycle stages

PC: Product categories

ERC: Environmental release categories

TF: Technical functions

SU: Sectors of use

PROC: Process categories

AC: Article categories

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