

according to UK REACH Regulation

EM-100

Revision date: 27.06.2023

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

Use of the substance/mixture

Cleaning agent. Deoxidisation, ready for use. Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Company name:	EMAG AG
Street:	Gerauer Str. 34
Place:	D-64546 Mörfelden-Walldorf
Telephone:	+49 6105 4067 0
e-mail:	a.emekci@emag-germany.de
Internet:	wwww.emag-germany.dede
Responsible Department:	info@emag-germany.de, Tel.: +49 (0) 6105 40 67 94
1.4. Emergency telephone	24-hour emergency call, poison control Berlin: 030-30686700

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Carc. 2; H351 Repr. 2; H361d Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling thiocarbamide, thiourea

Signal word:

Pictograms:



Hazard statements

Suspected of causing cancer.
Suspected of damaging the unborn child.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
Store locked up.

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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (GB CLP Regulation				
7732-18-5	Water			70-80 %	
	231-791-2				
62-56-6	thiocarbamide, thiourea			<5,0 %	
	200-543-5	612-082-00-0	01-2119977062-37		
	Carc. 2, Repr. 2, Acute Tox. 4, Aquatic Chronic 2; H351 H361d H302 H411				
7664-38-2	Phosphoric acid %; orthophosphoric acid				
	231-633-2	015-011-00-6	01-2119485924-24		
	Skin Corr. 1B; H314				
5949-29-1	Citric acid				
	201-069-1		01-2119457026-42		
	Eye Irrit. 2, STOT SE 3; H319 H335				
68439-50-9	C12-C14 Fatty alcohol ethoxylate			<1,0 %	
	-		*		
	Acute Tox. 4, Eye Dam. 1, Aquatic	Chronic 3; H302 H318 H412			
12645-31-7	Phosphoric acid-2 ethylhexylester				
	235-741-0		01-2119896587-13		
	Skin Corr. 1B; H314				

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity				
	Specific Conc.	Specific Conc. Limits, M-factors and ATE					
62-56-6	200-543-5	thiocarbamide, thiourea	<5,0 %				
	dermal: LD50	= 2800 mg/kg; oral: LD50 = 1750 mg/kg					
7664-38-2	231-633-2	Phosphoric acid %; orthophosphoric acid	<5,0 %				
	Skin Corr. 1B; 25	H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - <					
5949-29-1	201-069-1	Citric acid	<1,0 %				
	dermal: LD50	rmal: LD50 = >2000 mg/kg; oral: LD50 = >3000 mg/kg					
68439-50-9	-	C12-C14 Fatty alcohol ethoxylate	<1,0 %				
	oral: LD50 = <2000 mg/kg						
12645-31-7	235-741-0	Phosphoric acid-2 ethylhexylester	<0,2 %				
	oral: LD50 = 2500 mg/kg						

Labelling for contents according to Regulation (EC) No 648/2004

< 5 % non-ionic surfactants.

Further Information

*Polymer

SECTION 4: First aid measures



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4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing.

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with plenty of Water and soap.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an opthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. Consult physician.

4.2. Most important symptoms and effects, both acute and delayed

No symptoms known up to now.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water. Foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Nitrogen oxides (NOx). Carbon dioxide (CO2). Sulfur oxides. Phosphorus oxides.

5.3. Advice for firefighters

Protective clothing.

Additional information

Material is not combustible. Extinguishing materials should be selected according to the surrounding area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Wear personal protection equipment.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling



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Advice on safe handling

No special technical protective measures are necessary.

Advice on protection against fire and explosion

Product is not: Oxidizing. Flammable. explosive.

Advice on general occupational hygiene

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store only in original container. Keep away from food, drink and animal feedingstuffs.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		_	2		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
62-56-6	thiocarbamide, thiourea					
Consumer DNE	L, long-term	oral	systemic	0,1 mg/kg bw/day		
Worker DNEL,	long-term	dermal	systemic	3,4 mg/kg bw/day		
Consumer DNE	EL, long-term	dermal	systemic	1,7 mg/kg bw/day		
Worker DNEL,	long-term	inhalation	systemic	1 mg/m³		
Consumer DNE	EL, long-term	inhalation	systemic	0,2 mg/m³		
7664-38-2	Phosphoric acid %; orthophosphoric acid					
Worker DNEL,	long-term	inhalation	systemic	10,7 mg/m³		
Worker DNEL,	long-term	inhalation	local	1 mg/m³		
Worker DNEL,	acute	inhalation	local	2 mg/m³		
12645-31-7	Phosphoric acid-2 ethylhexylester	-		-		
Consumer DNEL, long-term		oral	systemic	6,25 mg/kg bw/day		
Worker DNEL, long-term		dermal	systemic	10,42 mg/kg bw/day		
Consumer DNEL, long-term		dermal	systemic	6,25 mg/kg bw/day		
Worker DNEL,	long-term	inhalation	systemic	36,73 mg/m ³		
Consumer DNE	EL, acute	inhalation	systemic	10,87 mg/m³		



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PNEC values

CAS No	Substance		
Environmental	compartment	Value	
62-56-6	thiocarbamide, thiourea		
Freshwater		0,01 mg/l	
Marine water		0,001 mg/l	
Freshwater sediment 0,072			
Micro-organism	Micro-organisms in sewage treatment plants (STP) 0,38 mg/l		
Soil 2,725 mg		2,725 mg/kg	
12645-31-7	Phosphoric acid-2 ethylhexylester		
Freshwater		0,049 mg/l	
Marine water 0,00 ⁻		0,0015 mg/l	
Marine sediment 0,35 mg/kg			
Micro-organism	Micro-organisms in sewage treatment plants (STP) 15 mg/l		

8.2. Exposure controls

Appropriate engineering controls

Refer to chapter 7. No further action is necessary.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

Suitable material:

PE (polyethylene).Layer thickness: 0,5 mm penetration time (maximum wearing period): >=8h CR (polychloroprenes, Chloroprene rubber). 0,5 mm penetration time (maximum wearing period): >=8h NBR (Nitrile rubber). 0,35 mm penetration time (maximum wearing period): >=8h Butyl rubber. FKM (Fluoroelastomer (Viton)). 0,5 mm penetration time (maximum wearing period): >=8h

Breakthrough times and swelling characteristics of the material must be taken into consideration. Recommended protective gloves brand: Camapren 722, Manufacturer: KCL, or comparable makes from other companies.

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: Colour: Odour:	liquid clear, light yellow characteristic		
			Test method
Melting point/freezing point:		-10 °C	
Boiling point or initial boiling point and		>100 °C	
boiling range:			
Flash point:			
pH-Value (at 20 °C):		1,3	DGF H-III 1
Water solubility:		complete miscible	
Density (at 20 °C):		1,039 g/cm ³	DIN 12791



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9.2. Other information

Information with regard to physical hazard classes

Explosive properties not Explosive. Oxidizing properties not oxidizing.

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 hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) 35714,3 mg/kg

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	>3000	rat	Gestis	OECD 401
	dermal	LD50 mg/kg	>2000	rat	ECHA	OECD 402
68439-50-9	C12-C14 Fatty alcohol ethoxylate					
	oral	LD50 mg/kg	<2000	rat		Cesio-Recommendati on
12645-31-7	Phosphoric acid-2 ethylhe	exylester				
	oral	LD50 mg/kg	2500	rat	MSDS	

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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 life with long lasting effects.

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 mg/l	0,25	21 d			
7664-38-2	Phosphoric acid %; orthophosphoric acid						
	Acute fish toxicity	LC50	138 mg/l	96 h	Gambusia affinis		
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	>100	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 mg/l	1535	48 h	Daphnia magna		
	Algae toxicity	NOEC	425 mg/l	8 d	Algae	ECHA	
12645-31-7	Phosphoric acid-2 ethylhe	xylester					
	Acute fish toxicity	LC50 mg/l	189-355	96 h	Danio rerio		OECD 203A

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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Chemical name CAS No Method Value d Source Evaluation 5949-29-1 Citric acid **OECD 301 B** 97 % 28 easily biodegradable 68439-50-9 C12-C14 Fatty alcohol ethoxylate OECD 301F >60 % 28 easily biodegradable 12645-31-7 Phosphoric acid-2 ethylhexylester >60 % **OECD 301 B** 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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH. not applicable

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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.

List of Wastes Code - 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

List of Wastes Code - 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.

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SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75 2004/42/EC (VOC):

0 % (0g/l)

National regulatory information

Water hazard class (D):

3 - highly hazardous to water

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: 1.1., 1.4., 2.1., 3.2., 7.1., 8.2., 9.1., 9.2., 11.1., 12.1., 12.2., 12.5., 12.6., 12.7., 15.1., 16.

Classification for mixtures and used evaluation method according to GB CLP Regulation

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.
H335	May cause respiratory 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 the present level of our knowledge. It does not, however, give assurance 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: L	ife cycle stages			SU: Sectors of use						
PC: Pr	oduct categories			F	PROC: Process categories					
ERC: E	Environmental release categorie	/	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.)

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