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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

Use of the substance/mixture

Cleaning agent. Special cleaner for the ultrasonic bath, based on citric acid, concentrate.
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(0)6105-406750
e-mail: a.emekci@emag-germany.de
Internet: www.emag-germany.de
Responsible Department: info@emag-germany.de, Tel.: +49 (0) 6105 40 67 94
1.4. Emergency telephone number: 24-hours-emergency: Giftnotruf Berlin: +49 30 30686700 (german, english)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

C12-C14 Fatty alcohol ethoxylate
Fatty alcohol, ethoxylated, phosphated

Signal word: Danger

Pictograms:



Hazard statements

H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to UK REACH Regulation

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7732-18-5	Water			70-80 %
	231-791-2			
5949-29-1	Citric acid			<16,0 %
	201-069-1		01-2119457026-42	
	Eye Irrit. 2, STOT SE 3; H319 H335			
68439-50-9	C12-C14 Fatty alcohol ethoxylate			<8,5 %
	-		*	
	Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 3; H302 H318 H412			
95-14-7	1,2,3-Benzotriazole			<2,0 %
	202-394-1		01-2119979079-20	
	Acute Tox. 4, Eye Irrit. 2, Aquatic Chronic 2; H302 H319 H411			
73038-25-2	Fatty alcohol, ethoxylated, phosphated			<1,5 %
	-			
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411			

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. Limits, M-factors and ATE	
5949-29-1	201-069-1	Citric acid	<16,0 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = >3000 mg/kg	
68439-50-9	-	C12-C14 Fatty alcohol ethoxylate	<8,5 %
		oral: LD50 = <2000 mg/kg	
95-14-7	202-394-1	1,2,3-Benzotriazole	<2,0 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 500 mg/kg	
73038-25-2	-	Fatty alcohol, ethoxylated, phosphated	<1,5 %
		oral: LD50 = >2000 mg/kg	

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

5 % - < 15 % non-ionic surfactants, < 5 % anionic surfactants.

Further Information

*Polymer

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated clothing.

After inhalation

In case of inhaling spray mists, consult a doctor .

After contact with skin

After contact with skin, wash immediately with: 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

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troubles or persistent symptoms, consult an ophthalmologist.

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). 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

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

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

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. Take off immediately all contaminated clothing. 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

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: liquid
Colour: colourless, clear
Odour: characteristic

Test method

Melting point/freezing point: -12 °C
Boiling point or initial boiling point and boiling range: 100 °C
Flash point: ---
pH-Value (at 20 °C): 1,5 (conc.) 2,8 (1 %) DGF H-III 1
Water solubility: complete miscible
(at 20 °C)
Density (at 20 °C): 1,07 g/cm³ DIN 12791

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

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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) 5208,3 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5949-29-1	Citric acid				
	oral	LD50 >3000 mg/kg	rat	Gestis	OECD 401
	dermal	LD50 >2000 mg/kg	rat	ECHA	OECD 402
68439-50-9	C12-C14 Fatty alcohol ethoxylate				
	oral	LD50 <2000 mg/kg	rat		Cesio-Recommendation
95-14-7	1,2,3-Benzotriazole				
	oral	LD50 500 mg/kg	rat	ECHA	OECD 423
	dermal	LD50 >2000 mg/kg	rat	ECHA	OECD 402
73038-25-2	Fatty alcohol, ethoxylated, phosphated				
	oral	LD50 >2000 mg/kg	Ratte		

Irritation and corrosivity

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Risk of serious damage to eyes.

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.

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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. Product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
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		
	Algae toxicity	NOEC 425 mg/l	8 d	Algae	ECHA	
95-14-7	1,2,3-Benzotriazole					
	Acute fish toxicity	LC50 180 mg/l	96 h	Danio rerio		OECD 203
	Acute algae toxicity	ErC50 75 mg/l	72 h	Selenastrum capricornutum		OECD 201
	Acute crustacea toxicity	EC50 15,8 mg/l	48 h	Daphnia galeata		OECD 202

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.

CAS No	Chemical name			
	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			
95-14-7	1,2,3-Benzotriazole			
	OECD 3101D	0 %	28	
	Not easily biodegradable			

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.

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.

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

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

National regulatory information

Water hazard class (D): 2 - obviously 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
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
H315 Causes skin irritation.

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according to UK REACH Regulation

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H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
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-404	IS, PW, C	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.)