Safety Data Sheet

according to UK REACH Regulation

EM303

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

1.1. Product identifier

EM-303

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

Use of the substance/mixture

Cleaning agent. Flux remover, for the ultrasonic bath, without tensides, 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:	wwww.emag-germany.de
Responsible Department:	info@emag-germany.de, Tel.: +49 (0) 6105 40 67 94

1.4. Emergency telephone number:

24-hour emergency call, poison control Berlin: 030-30686700

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Skin Irrit. 2; H315
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Disodium metasilicate pentahydrat
Sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7732-18-5	Water			80-90 %
	231-791-2			
497-19-8	sodium carbonate			<5,0 %
	207-838-8	011-005-00-2	01-2119485498-19	
	Eye Irrit. 2; H319			
10213-79-3	Disodium metasilicate pentahydrat			<3,0 %
	600-279-4		01-2119449811-37	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335			
1310-73-2	Sodium hydroxide; caustic soda			<1,0 %
	215-185-5	011-002-00-6	01-2119457892-27	
	Skin Corr. 1A; H314			
1336-21-6	ammonia ... %			<2,5 %
	215-647-6		01-2119488876-14	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, Aquatic Acute 1; H290 H314 H318 H335 H400			
22042-96-2	Phosphonate			<2,0 %
	244-751-4		01-2119514449-36	

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		
497-19-8	207-838-8	sodium carbonate	<5,0 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = 2800 mg/kg		
10213-79-3	600-279-4	Disodium metasilicate pentahydrat	<3,0 %
	dermal: LD50 = >5000 mg/kg; oral: LD50 = 1349 mg/kg		
1310-73-2	215-185-5	Sodium hydroxide; caustic soda	<1,0 %
	oral: LD50 = 2000 mg/kg Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change 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 (CO_2).

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

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
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
497-19-8	sodium carbonate			
Worker DNEL, long-term		inhalation	systemic	10 mg/m³
Consumer DNEL, long-term		inhalation	systemic	10 mg/m³
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
1336-21-6	ammonia ... %			
Worker DNEL, acute		inhalation	local	47,6 mg/m³
Consumer DNEL, acute		inhalation	local	23,8 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
Environmental compartment	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
1336-21-6	ammonia ... %
Freshwater	0,0011 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.

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:	clear, yellow
Odour:	like: Ammonia

		Test method
Melting point/freezing point:	-6 °C	
Boiling point or initial boiling point and boiling range:	>100 °C	
Flash point:	---	
pH-Value (at 20 °C):	13,5 (conc.) 11,5 (1 %)	DGF H-III 1
Water solubility:	complete miscible	
Density (at 20 °C):	1,085 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

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 hazard classes as defined in GB CLP Regulation

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
497-19-8	sodium carbonate				
	oral	LD50 2800 mg/kg	rat		
	dermal	LD50 >2000 mg/kg			
10213-79-3	Disodium metasilicate pentahydrat				
	oral	LD50 1349 mg/kg	rat		
	dermal	LD50 >5000 mg/kg	rat		EPA OPPTS 870.1200
1310-73-2	Sodium hydroxide; caustic soda				
	oral	LD50 2000 mg/kg	rat		

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.

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	msds	
	Acute crustacea toxicity	EC50	200 mg/l	48 h	Daphnia magna	msds	
10213-79-3	Disodium metasilicate pentahydrat						
	Acute fish toxicity	LC50	210 mg/l	96 h	Danio rerio		ISO 7346/1
	Acute algae toxicity	ErC50 mg/l	>345,4	72 h	Scenedesmus subspicatus		DIN 38412
	Acute crustacea toxicity	EC50 mg/l	1700	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 mg/l	40,4	48 h	Ceriodaphnia	ECHA	
1336-21-6	ammonia ... %						
	Acute fish toxicity	LC50 mg/l	0,89	96 h		msds	
	Acute crustacea toxicity	EC50	48 mg/l	48 h		msds	
	Crustacea toxicity	NOEC mg/l	0,42	21 d	Daphnia magna	msds	

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

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, Entry 75

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

National regulatory information

Water hazard class (D): 1 - slightly 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
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.
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.

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-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.)