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

1.1. Product identifier

EM-202

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

Use of the substance/mixture

Cleaning agent. Special acid cleaner for the ultrasonic bath, concentrate,

1.3. Details of the supplier of the safety data sheet

Company name:	EMAG AG
Street:	Gerauer Straße 34
Place:	64546 Mörfelden-Walldorf, GERMANY
Telephone:	+49 (0) 6105 406 80
e-mail:	info@emag-germany.de
Internet:	www.emag-germany.de

1.4. Emergency telephone number: 24-hours-emergency: Giftnotruf Berlin: +49 30 30686790 (german, english)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: C - Corrosive
R phrases:
Causes burns.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Skin corrosion/irritation: Skin Corr. 1B
Serious eye damage/eye irritation: Eye Dam. 1
Hazard Statements:
Causes severe skin burns and eye damage.

2.2. Label elements

Hazardous components which must be listed on the label

Phosphoric acid ... %; orthophosphoric acid
C12-C14 Fatty alcohol ethoxylate

Signal word: Danger

Pictograms: GHS05

Hazard statements

H314 Causes severe skin burns and 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

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
231-633-2	Phosphoric acid ... %; orthophosphoric acid	<60 %
7664-38-2	C - Corrosive R34	
015-011-00-6	Skin Corr. 1B; H314	
213-791-2	Water	30-40 %
7732-18-5		
	C12-C14 Fatty alcohol ethoxylate	<10,0 %
68439-50-9	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R22-41-50	
	Acute Tox. 4, Eye Dam. 1, Aquatic Acute 1 (M-Factor = 1); H302 H318 H400	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing.

After inhalation

In case of inhalation of aerosols/spray mist/splash spots: Consult physician. Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: Water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. 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). Phosphorus oxides.

5.3. Advice for firefighters

Special protective equipment for fire-fighters: Use appropriate respiratory protection. In case of fire and/or explosion do not breathe fumes.

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

Keep away from unprotected people. Keep upwind. Wear respiratory protection when in the presence of vapour, dust, and aerosols. Guide people to safety.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms).

6.3. Methods and material for containment and cleaning up

Clean contaminated articles and floor according to the environmental legislation. Treat the assimilated material according to the section on waste disposal. Suitable absorbing material: Sand Universal binding agent. earth. Sawdust.

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

It is recommended to organise all working processes in order to exclude the following: skin contact. Eye contact.

Advice on protection against fire and explosion

Product is not: Oxidizing. Flammable. Explosive.

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

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.
Take off immediately all contaminated clothing.
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)).
penetration time (maximum wearing period): >480 min. 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

Lab apron.

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 - light yellow	
Odour:	characteristic	
		Test method
pH-Value (at 20 °C):	0,5 (conc.) 1,9 (1 %)	DGF H-III 1
Changes in the physical state		
Melting point:	-20 °C	
Initial boiling point and boiling range:	100 °C	
Sublimation point:	n.a.	
Softening point:	n.a.	
Flash point:	non-flammable	

Explosive properties

not Explosive.

Oxidizing properties

not oxidizing.

Density (at 20 °C):	1,36 g/cm³	DIN 12791
Water solubility: (at 20 °C)	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

Acute toxicity, oral LD50: 1530 mg/kg, Rat.
Acute toxicity, dermal LC50: 1,69 mg/l 1h, Rat.
Data apply to the principal component.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
68439-50-9	C12-C14 Fatty alcohol ethoxylate				
	oral	ATE	500 mg/kg		

Irritation and corrosivity

Irritant effect on the skin: corrosive. Irritant effect on the eye: corrosive.

Sensitising effects

no danger of sensitization.

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.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
7664-38-2	Phosphoric acid ... %; orthophosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96 h	Gambusia affinis	

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.

Contaminated packaging

Contaminated packing must be completely emptied and can be re-used following appropriate cleaning.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1805

14.2. UN proper shipping name:	PHOSPHORIC ACID SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Classification code:	C1
Limited quantity:	5 L
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

Marine transport (IMDG)

14.1. UN number:	UN1805
14.2. UN proper shipping name:	PHOSPHORIC ACID SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Marine pollutant:	no
Special Provisions:	223
Limited quantity:	5 L
EmS:	F-A, S-B

Other applicable information (marine transport)

Excepted Quantity: E1

Air transport (ICAO)

14.1. UN number:	UN1805
14.2. UN proper shipping name:	PHOSPHORIC ACID SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

Other applicable information (air transport)

Excepted Quantity: E1
Passenger-LQ: Y841

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 % (0 g/l)

National regulatory information

Water contaminating class (D):	2 - 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, 8, 11, 12, 15

Relevant R-phrases (Number and full text)

22	Harmful if swallowed.
34	Causes burns.
41	Risk of serious damage to eyes.
50	Very toxic to aquatic organisms.

Relevant H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

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.

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