



Ultrasonics.Steam.Ultraclean.

Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)

Printed 07.02.2017
revision 07.02.2017 (GB) Version 3.3
elma korrosionsschutzzusatz (elma-KS)

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

1.1. Product identifier

Name of product elma korrosionsschutzzusatz (elma-KS)

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

Identified uses

Sector of uses [SU]

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Recommended intended purpose(s)

Anticorrosion additive for aqueous neutral and alkaline cleaning and rinsing bathes. The product does not contain secondary amines according to the recipe. Recommended application: about 0.1%.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17, D-78224 Singen (Htwl.)
Phone +49 7731 882-0, Fax +49 7731 882-266
E-Mail info@elma-ultrasonic.com
Internet www.elma-ultrasonic.com

Advice

Chemie/Labor: Email: chemlab@elma-ultrasonic.com

1.4. Emergency telephone number

Emergency advice

Vergiftungs-Informations-Zentrale Freiburg
(Sprache/Language: D, GB)
Phone +49 761 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Eye Dam. 1	H318	On basis of test data.
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Hazard Statements

H318 Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05

Signal word

Danger

Hazard Statements

H318 Causes serious eye damage.



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Precautionary Statements

P102 Keep out of reach of children.
P280 Wear eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a doctor.
P311 Call a POISON CENTER/doctor.

Hazardous ingredients for labeling

2-(2-aminoethoxy)ethanol

2.3. Other hazards

Acute Tox. 5 (oral + dermal) H303 + H313: May be harmful if swallowed or in contact with skin.

Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

Aqueous alkaline mixture from aminocompounds and fatty acids.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
929-06-6	213-195-4	2-(2-aminoethoxy)ethanol	10 - 25	Skin Corr. 1B, H314 / Eye Dam. 1, H318

REACH

CAS No	Name	REACH registration number
929-06-6	2-(2-aminoethoxy)ethanol	01-2119520701-52

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
In the event of persistent symptoms receive medical treatment.

In case of skin contact

In case of contact with skin wash off with water.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Give activated charcoal.
Do not induce vomiting.
Refer to medical treatment.
If swallowed give water to drink.



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

Physician's information / possible symptoms

No further informations available.

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

Treatment (Advice to doctor)

Continue to monitor for pneumonia and pulmonary oedema.

If swallowed or in the event of vomiting, risk of entering the lungs.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

water

Foam

Carbon dioxide

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Do not inhale explosion and/or combustion gases.

! SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protection.

High risk of slipping due to leakage/spillage of product.

! For emergency responders

Use personal protective clothing.

Use personal protection.

Forms slippery surfaces with water.

High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder).

Flush away residues with water.

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

Informations for disposal see chapter 13.



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! SECTION 7: Handling and storage

7.1. Precautions for safe handling

! Advice on safe handling

Open and handle container with care!

General protective measures

Avoid contact with eyes and skin

Do not inhale aerosols

Hygiene measures

Provide washing facilities at place of work.

Keep away from food and drink.

Advice on protection against fire and explosion

The product is combustible.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Do not store with acids.

Do not store together with oxidizing agents.

Further information on storage conditions

Keep locked up, out of reach of children

Protect from heat and direct solar radiation.

Do not keep at temperatures below -5°C.

Information on storage stability

Storage time: 5 years.

At storage brownish discolouration.

7.3. Specific end use(s)

! Recommendation(s) for intended use

Care for thoroughly room ventilation for higher bath temperatures.

! SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
929-06-6	2-(2-aminoethoxy)ethanol	1,12 mg/m ³	DNEL long-term inhalative (systemic)	
		0,67 mg/m ³	DNEL long-term inhalative (local)	
		7,3 mg/kg bw/day	DNEL long-term dermal (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
929-06-6	2-(2-aminoethoxy)ethanol	0,202 mg/l	PNEC aquatic, freshwater	
		28 mg/l	PNEC sewage treatment plant (STP)	

! Additional advice

Occupational exposure limits: No relevant informations available.



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8.2. Exposure controls

Hand protection

chemical-resistant gloves

Glove material specification [make/type, thickness]: FKM, 0.4mm.

Glove material specification [make/type, thickness]: NBR, 0.35mm.

Eye protection

tightly fitting goggles

Limitation and surveillance of the environment

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

light yellow up to light brown

Odour

similar to amine

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	9 - 9,5	20 °C	10 g/l		
starts to boil	> 100 °C				
solidifying range	< -5 °C				
Flash point					No flash point below 100 °C.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	2 Vol-%				Value of 2-(2-aminoethoxy) ethanol.
Upper explosion limit	15,5 Vol-%				Value of 2-(2-aminoethoxy) ethanol.
Vapour pressure	0,014 hPa	20 °C			Value of 2-(2-aminoethoxy) ethanol.
Relative density	ca. 1,07 g/cm ³	20 °C			



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	Value	Temperature	at	Method	Remark
Vapour density	3,62				Value of 2-(2-aminoethoxy) ethanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	-1,89				Value of 2-(2-aminoethoxy) ethanol.
Decomposition temperature	> 100 °C				
Viscosity	not determined				
Solvent content	0 %				
Vapourisation rate Water: 0.36 (ASTM D3539).					
Oxidising properties no					
Explosive properties no					
9.2. Other information No further relevant informations available.					

! SECTION 10: Stability and reactivity

10.1. Reactivity

Evolution of heat under influence of acids.
No further hazardous reactions known if used as directed.

10.2. Chemical stability

Stable at ambient temperature.

10.3. Possibility of hazardous reactions

Reactions with acids.
Reactions with oxidising agents.

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

! Substances to avoid

Reactions with acids.
Reactions with oxidising agents.
Reaction with nitric acid
Reactions with inorganic acid chlorides.



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10.6. Hazardous decomposition products

No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	4890 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	4000 - 5000 mg/kg		ATE (acute toxicity estimate)	
Skin irritation	low irritant effect - not necessary to label	rabbit	OECD 404	
Eye irritation	risk of strong eye injuries		OECD 437	
Skin sensitization	The mixture is not classified as skin sensitiser.			

Specific target organ toxicity (single exposure)

The mixture is not classified as specific target organ toxicant (single exposure).

Specific target organ toxicity (repeated exposure)

The mixture is not classified as specific target organ toxicant (repeated exposure).

Aspiration hazard

The mixture is not classified as aspiration hazardous.

Toxicity test (Additional information)

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.

2-(2-aminoethoxy)ethanol : LD50(oral, rat): 2558 mg/kg, LD50(dermal, rabbit): >3000 mg/kg .

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 254 mg/l		calculated	
Daphnia	EC50 264 mg/l		calculated	
Algae	EC50 139 mg/l		calculated	

12.2. Persistence and degradability

Physico-chemical degradability	100 %		Neutralization, pH-measurement	
Biological degradability	> 80 %		OECD 301 B	readily degradable



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12.3. Bioaccumulative potential

2-(2-aminoethoxy)ethanol: Accumulation in organisms is not expected (log Pow: -1.89).

12.4. Mobility in soil

2-(2-aminoethoxy)ethanol: Adsorption on soil is not expected.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

12.6. Other adverse effects

No further relevant informations available.

Additional ecological information

	Value	Method	Remark
COD	2018 mgO2/g	calculated	
AOX	The product does not contain any organically bound halogens according to the recipe.		

General regulation

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.

The mixture is not classified as acute/chronic hazardous to the aquatic environment.

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.

20 01 29*

Name of waste

detergents containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Do not dispose with household waste.

Suitable for neutralization are acetic acid (60%, liquid) or citric acid (solid powder, crystallized) if a stainless steel bath is used.

Remove in accordance with local official regulations.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-



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	ADR/RID	IMDG	IATA-DGR
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-
14.6. Special precautions for user no			
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant			
Land and inland navigation transport ADR/RID No dangerous goods as defined by these transport regulations.			
Marine transport IMDG No hazardous material as defined by the prescriptions.			
Air transport ICAO/IATA-DGR No hazardous material as defined by the prescriptions.			

! SECTION 15: Regulatory information

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

Authorizations

not relevant

! Application restrictions

Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 - not relevant if used as directed.

Other regulations (EU)

Regulation (EC) No 648/2004 (Detergents regulation).

Directive 2012/18/EU, Annex I: not mentioned.

VOC standard

VOC content 0 %

15.2. Chemical Safety Assessment

For this mixture a chemical safety assessment were not carried out.

! SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 3.2

! Sources of key data used

Own measurements.

European Chemicals Agency, <http://echa.europa.eu/>.

Informations from our suppliers.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.