

**Elektrolyt AE 12**

Material number 22.012

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

**1.1 Product identifier**

Trade name: Elektrolyt AE 12

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

General use Electrolytic marking technology

**1.3 Details of the supplier of the safety data sheet**

Company name: Schilling Marking Systems GmbH

Street/POB-No.: In Grubenäcker 1

State/city/postal code: D-78532 Tuttlingen

World Wide Web: www.schilling-marking.de

Email: info@schilling-marking.de

Telephone: +49 (0)7461 9472-17

Telefax: +49 (0)7461 9472-29

Dept. responsible for information:

Herr Andreas Schilling,

Telephone: +49 (0)7461 9472-15, Email: info@schilling-marking.de

**1.4 Emergency telephone number**

**Beratungsstelle für Vergiftungserscheinungen, Berlin,**

**Telephone: +49 (0)30 19240**

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

This preparation is classified as not hazardous.

**2.2 Label elements**

**Labelling (67/548/EEC or 1999/45/EC)**

R phrase(s): not applicable

S phrase(s): S 24/25 Avoid contact with skin and eyes.

**2.3 Other hazards**

Electrolytic vapours may form during the electrochemical process.

Harmful by inhalation.

Liquid splashes can lead to irritations of the eyes.

A corrosive effect cannot be ruled out because of the pH value.

**SECTION 3: Composition/ information on ingredients**

**3.2 Mixtures**

Chemical characterization (preparation)

mixture of water/mineral salt and complexing agent

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Hazardous ingredients:

Ingredient	Chemical name	Content	classification
EINECS 201-069-1 CAS 5949-29-1	Citric acid monohydrate	< 6 %	EU: Xi; R36. CLP: Eye Irrit. 2; H319.
REACH 01-2119471330-49-xxxx EINECS 200-662-2 CAS 67-64-1	Acetone	< 2 %	EU: F; R11. R66. R67. Xi; R36. CLP: (EUH066). Eye Irrit. 2; H319. Flam. Liq. 2; H225. STOT SE 3; H336.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- After inhalation: Provide fresh air. In case of respiratory difficulties seek medical attention.
- In case of skin contact: Change contaminated clothing. Remove residues with water.  
In case of skin reactions, consult a physician.
- After eye contact: 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 ophthalmologist.
- After swallowing: Rinse mouth immediately and drink plenty of water. Consult doctor afterwards.

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

No data available

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

No special measures are required.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

**5.2 Special hazards arising from the substance or mixture**

In the event of a fire, the following may be produced when the water evaporates: hydrochloric, sulphur oxides, phosphorus oxides, carbon monoxide and carbon dioxide.

**5.3 Advice for firefighters**

Special protective equipment for firefighters:

Wear self-contained breathing apparatus.

Additional information:

Hazchem-Code: -

Do not allow fire water to penetrate into surface or ground water.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes. Provide adequate ventilation.

**6.2 Environmental precautions**

Do not allow to penetrate into soil, waterbodies or drains.

**6.3 Methods and material for containment and cleaning up**

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Final cleaning.

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**6.4 Reference to other sections**

not required

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advices on safe handling Provide adequate ventilation, and local exhaust as needed.  
Avoid contact with skin and eyes. Do not breathe vapour/aerosol.  
Do not mix with other chemicals.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storerooms and containers:  
Keep container tightly closed. Store at room temperature.

Storage class: 12 = Non-combustible liquids

**7.3 Specific end use(s)**

No data available

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

CAS No.	Chemical name	Type	Limit value
67-64-1	Acetone	Great Britain: WEL-TWA	1210 mg/m <sup>3</sup> ; 500 ppm
		Great Britain: WEL-STEL	3620 mg/m <sup>3</sup> ; 1500 ppm
		Europe, IOELV: TWA	1210 mg/m <sup>3</sup> ; 500 ppm

**8.2 Exposure controls**

Provide good ventilation and/or an exhaust system in the work area.

**Occupational exposure controls**

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.  
filter AX according to EN 371.  
In the event of irritation from processing vapours: combination filter according to EN 141.

Hand protection: Protective gloves according to EN 374.  
Glove material: Nitrile rubber-Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:  
Change contaminated clothing. Avoid contact with skin and eyes.  
Wash hands before breaks and after work.  
Provide a conveniently located eye rinse station.

**SECTION 9: Physical and chemical properties****9.1 information on basic physical and chemical properties**

Physical state: liquid  
Colour: clear  
Odour: characteristic

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Boiling temperature / boiling range 100 °C  
Melting point / melting range 0 °C  
Density: approx. 1,2 g/ml  
pH value: 1,5-2,0  
Water solubility: at 20 °C: fully miscible

### 9.2 Other information

Relative vapour density (air=1): > 1

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Product is stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

Will not occur.

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

strong acids and alkalis

### 10.6 Hazardous decomposition products

In the event of a fire, the following may be produced when the water evaporates: hydrochloric, sulphur oxides, phosphorus oxides, carbon monoxide and carbon dioxide.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

After inhalation: Electrolytic vapours may form during the electrochemical process.  
Harmful by inhalation.  
After swallowing: May cause irritations.  
In case of skin contact: May cause irritations.  
After eye contact: May cause irritations.

## SECTION 12: Ecological information

### 12.1 Toxicity

Water Hazard Class: 1 = slightly hazardous to water

### 12.2. Persistence and degradability

Further details: No data available

### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

No data available

#### 12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Waste key number 11 01 98\* = Wastes from chemical surface treatment and coating of metals and other materials (eg. galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)  
\* = Evidence for disposal must be provided.

Recommendation: Special waste. Dispose of waste according to applicable legislation.

##### Contaminated packaging

Waste key number: Dispose of waste according to applicable legislation.  
Recommendation: Non-contaminated packages may be recycled.

### SECTION 14: Transport information

#### 14.1 UN number

not applicable

#### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

#### 14.3 Transport hazard class(es)

not applicable

#### 14.4 Packing group

not applicable

#### 14.5 Environmental hazards

Marine Pollutant unknown

#### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

### SECTION 15: Regulatory information

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

##### National regulations - Great Britain

Hazchem-Code: -

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**National regulations - Germany**

Storage class: 12 = Non-combustible liquids

Water Hazard Class: 1 = slightly hazardous to water

Informations on working limitations:

Observe employment restrictions concerning young persons.

**National regulations - USA**

Hazard rating systems



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

**15.2 Chemical Safety Assessment**

No data available

**SECTION 16: Other information****Further remarks**

R phrase(s):

R 11 = Highly flammable.

R 36 = Irritating to eyes.

R 66 = Repeated exposure may cause skin dryness or cracking.

R 67 = Vapours may cause drowsiness and dizziness.

Reason of change:

General revision

**Group that issues data sheet**

Contact person:

see chapter 1, department responsible for information.

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.