

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

### 1.1 Product identifier

Trade name: Electrolyte AE 35

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

General use Electrolytic marking technology for steels and chromed decorative items, low-corrosive

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

Company name: Schilling Marking Systems GmbH

Street/POB-No.: In Grubenäcker 1

Postal Code, city: 78532 Tuttlingen

Germany

WWW: [www.schilling-marking.de](http://www.schilling-marking.de)

E-mail: [info@schilling-marking.de](mailto: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](mailto: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.

## SECTION 3: Composition/ information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterization (preparation):

mixture of water/mineral salt and complexing agent, nitrite-free

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Hazardous ingredients:

Ingredient	Chemical name	Content	Classification
EINECS 229-347-8 CAS 6484-52-2 REACH	Ammonium nitrate	< 10 %	EU: O; R9. CLP: Ox. Sol. 3; H272.
01-2119457026-42-xxxx EINECS 201-069-1 CAS 5949-29-1	Citric acid monohydrate	< 10 %	EU: Xi; R36. CLP: Eye Irrit. 2; H319.
EINECS 200-661-7 CAS 67-63-0	Isopropyl alcohol	< 10 %	EU: F; R11. Xi; R36. R67. CLP: Flam. Liq. 2; H225. Eye Irrit. 2; H319. STOT SE 3; H336.

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

- After inhalation: Provide fresh air. Seek medical attention if irritation persists.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- In case of skin contact: After contact with skin, wash immediately with soap and plenty of water.  
Remove contaminated clothing immediately and dispose of safely. Consult a doctor if skin irritation persists.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
- After swallowing: Do NOT induce vomiting.  
Rinse mouth and drink large quantities of water. Consult doctor afterwards.

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

After eye contact: Reddening, pain.

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

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

Fires in the immediate vicinity may cause the development of dangerous vapours.  
In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

**5.3 Advice for firefighters**

Special protective equipment for firefighters:  
In case of surrounding fires: Wear self-contained breathing apparatus.

Additional information: Hazchem-Code: -

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

Avoid contact with skin and eyes.

**6.2 Environmental precautions**

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

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

Take up mechanically, placing in appropriate containers for disposal.

Thoroughly clean surrounding area.

**6.4 Reference to other sections**

Refer additionally to chapter 8 and 13.

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

Advices on safe handling Open and handle container with care.

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

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not mix chemical with any other chemicals except water.

Keep away from food, drink and animal feeding stuffs.

Storage class:

12= Non-combustible liquids

**7.3 Specific end use(s)**

Electrolytic marking technology

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

CAS No.	Chemical name	Type	Limit value
67-63-0	Isopropyl alcohol	Great Britain: WEL-TWA	999 mg/m <sup>3</sup> ; 400 ppm
		Great Britain: WEL-STEL	1250 mg/m <sup>3</sup> ; 500 ppm

**8.2 Exposure controls****Occupational exposure controls**

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 14387.

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

Eye protection: Tightly sealed goggles according to EN 166.

General protection and hygiene measures:

Avoid contact with skin and eyes. Do not breathe vapours.

Work place should be equipped with a shower and an eye rinsing apparatus.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	clear
Odour:	weak
Melting point / melting range:	-7 - 0 °C
Density:	at 20 °C: approx. 1,2 g/mL
pH value:	at 20 °C: 6,5-7,0
Water solubility:	at 20 °C: complete soluble

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

see 10.3

### 10.2 Chemical stability

Product is stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Do not mix chemical with any other chemicals except water.

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Toxicological effects      Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Lack of data.  
Eye damage / irritation: Eye Irrit. 2; H319.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Lack of data.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

### Symptoms

After eye contact: Reddening, pain.

## SECTION 12: Ecological information

### 12.1 Toxicity

Water Hazard Class:      1 = slightly hazardous to water

### 12.2. Persistence and degradability

Further details:          Information about Isopropyl alcohol: Easily bio-degradable.

### 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

AOX reference:          Product does not contain organically bound halogen (AOX).

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

\* = Evidence for disposal must be provided.

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Recommendation: Dispose of waste according to applicable legislation.

**Contaminated packaging**

Waste key number 15 01 02 = Plastic packaging

Recommendation: Dispose of waste according to applicable legislation.  
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 - IMDG: No

**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: -

**National regulations - Germany**

Storage class: 12= Non-combustible liquids

Water Hazard Class: 1 = slightly hazardous to water

**National regulations - USA**

Hazard rating systems

NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

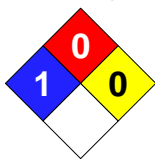
HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor



HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

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### 15.2 Chemical Safety Assessment

No data available

## SECTION 16: Other information

### Further remarks

Wording of the R-phrases under paragraph 2 and 3:

R 8 = Contact with combustible material may cause fire.

R 9 = Explosive when mixed with combustible material.

R 11 = Highly flammable.

R 36 = Irritating to eyes.

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.