

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

1.1 Product identifier

Trade name: Electrolyte AE 1

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

General use: Electrolytic/electro-chem metal marking for stainless steels

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
E-mail: info@schilling-marking.de
Telephone: +49 (0)7461 9472-0
Telefax: +49 (0)7461 9472-28
Dept. responsible for information:
Herr Andreas Schilling,
Telephone: +49 (0)7461 9472-0
Email: info@schilling-marking.de

1.4 Emergency telephone number

GIZ-Nord, Germany Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Eye Irrit. 2; H319 Causes serious eye irritation.

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

Xi; R36 Irritating to eyes.

2.2 Label elements

Labelling (CLP)



Signal word:

Warning

Hazard statements:

H319 Causes serious eye irritation.

Safety precautions:

P102 Keep out of reach of children.

P264 Wash hands and face thoroughly after handling.

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.

P337+P313

If eye irritation persists: Get medical advice/attention.

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

irritant

R phrase(s):	R 36	Irritating to eyes.
S phrase(s):	S 2	Keep out of the reach of children.
	S 25	Avoid contact with eyes.
	S 37/39	Wear suitable gloves and eye/face protection.

Special labelling

Text for labelling: Contains Sodium nitrate.

2.3 Other hazards

Electrolytic vapours may form during the electrochemical process.
May be harmful if inhaled.
A corrosive effect cannot be ruled out because of the pH value.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterization: Aqueous solution of anorganic salts and organic compounds.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119457026-42-xxxx EINECS 201-069-1 CAS 5949-29-1	Citric acid monohydrate	5 - 15 %	EU: Xi; R36. CLP: Eye Irrit. 2; H319.
EINECS 231-554-3 CAS 7631-99-4	Sodium nitrate	< 10 %	EU: O, Xn; R 8, 22 CLP: Ox. Sol. 3; H272. Acute Tox. 4; H302.
REACH 01-2119471330-49-xxxx EINECS 200-662-2 CAS 67-64-1	Acetone	< 5 %	EU: F; R11. Xi; R36. R66. R67. CLP: Flam. Liq. 2; H225. Eye Irrit. 2; H319. STOT SE 3; H336. (EUH066).
EINECS 204-812-8 CAS 126-92-1	Sodium etasulfate	< 2 %	EU: Xi; R41. Xi; R38. CLP: Skin Irrit. 2; H315. Eye Dam. 1; H318.

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

In case of 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. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Seek medical advice.

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4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation: May cause irritations.
After contact with skin: May cause irritations.
After eye contact: Causes serious eye irritation.
Reddening, pain. In case of longer contact, danger of serious eye damage.

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

In the event of a fire, the following may be produced when the water evaporates: Nitrogen oxides (NOx), sulphur oxides, sodium compounds, 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: -

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 eyes. Provide adequate ventilation.
Wear suitable protective clothing.

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.

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:

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.
Wear suitable protective clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and dry. Store at room temperature.

Storage class:

12 = Non-combustible liquids

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7.3 Specific end use(s)

No information available.

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

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
67-64-1	Acetone	Europe: IOELV: TWA	1210 mg/m ³ ; 500 ppm
		Great Britain: WEL-STEL	3620 mg/m ³ ; 1500 ppm
		Great Britain: WEL-TWA	1210 mg/m ³ ; 500 ppm
		Ireland: 8 hours	1210 mg/m ³ ; 500 ppm IOELV

8.2 Exposure controls

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

Personal protection equipment**Occupational exposure controls**

- Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.
If vapours form, use respiratory protection.
Combination filter/Use filter type A-P2 according to EN 14387.
- 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 goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:
Avoid contact with skin and eyes.
Do not breathe vapour/aerosol. Change contaminated clothing.
Wash hands before breaks and after work.
Eye wash facility must be provided.

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

- Appearance: Physical state: liquid
Colour: colourless, clear
- Odour: characteristic
- Odour threshold: no data available
- pH value: 1.5
- Melting point/freezing point: no data available
- Initial boiling point and boiling range: no data available
- Flash point/flash point range: no data available
- Evaporation rate: no data available
- Flammability: no data available
- Explosive properties: no data available
- Explosion limits: no data available
no data available
- Vapour pressure: no data available
- Vapour density: no data available
- Density: at 20 °C: approx. 1.12 g/mL

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Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Thermal decomposition:	no data available
Viscosity, dynamic:	no data available
Explosive properties:	no data available
Oxidizing characteristics:	no data available

9.2 Other information

Additional information: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

refer to 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

Do not mix with other chemicals.

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: Nitrogen oxides (NO_x), sulphur oxides, sodium compounds, carbon monoxide and carbon dioxide.

Thermal decomposition: no data available

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 = Causes serious eye irritation.
	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.

Other information: A corrosive effect cannot be ruled out because of the pH value.
The following applies to Sodium nitrate in general:
After ingestion: Mucous membrane irritation, nausea, diarrhoea, vomiting.
After absorption of large quantities: Methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms. Key symptom cyanosis (blue coloured blood).

Symptoms

In case of inhalation: May cause irritations.
After contact with skin: May cause irritations.
After eye contact: Causes serious eye irritation.
Reddening, pain. In case of longer contact, danger of serious eye damage.

SECTION 12: Ecological information

12.1 Toxicity

Further details: no data available

12.2. Persistence and degradability

Further details: no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
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.
The following applies to nitrates in general:
May contribute to the eutrophication of water supplies. Danger to drinking water.

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: 15 01 02 = Plastic packaging

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

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SECTION 14: Transport information**14.1 UN number**

ADR/RID, IMDG, IATA: not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA: not applicable

14.4 Packing group

ADR/RID, IMDG, IATA: not applicable

14.5 Environmental hazards

Marine pollutant: 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 - EC member statesVolatile organic compounds (VOC):
4 % by weight**Labelling of packaging with <= 125mL content**

Signal word:

Warning

Hazard statements:

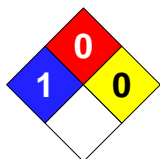
not applicable

Safety precautions:

P102 Keep out of reach of children.

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

For this mixture a chemical safety assessment is not required.

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SECTION 16: Other information

Further information

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

H225 = Highly flammable liquid and vapour.

H272 = May intensify fire; oxidiser.

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H318 = Causes serious eye damage.

H319 = Causes serious eye irritation.

H336 = May cause drowsiness or dizziness.

EUH066 = Repeated exposure may cause skin dryness or cracking.

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

R 8 = Contact with combustible material may cause fire.

R 11 = Highly flammable.

R 22 = Harmful if swallowed.

R 36 = Irritating to eyes.

R 38 = Irritating to skin.

R 41 = Risk of serious damage 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

Date of first version: 20.02.2009

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.