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

1.1 Product identifier

Trade name: Elektrolyt AE 38

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

General use: Electrolytic/electro-chem metal marking for Aluminium

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)

This mixture is classified as not hazardous.

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

This preparation is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Safety precautions: not applicable

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

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterization: mixture of water/mineral salt and complexing agent

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119457026-42-xxxx 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. Xi; R36. R66. R67. CLP: Flam. Liq. 2; H225. Eye Irrit. 2; H319. STOT SE 3; H336. (EUH066).

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. In case of troubles or persistent symptoms, consult an opthalmologist.

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

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: 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, siliceus 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.

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 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/m³; 500 ppm
		Great Britain: WEL-STEL	3620 mg/m³; 1500 ppm
		Great Britain: WEL-TWA	1210 mg/m³; 500 ppm
		Ireland: 8 hours	1210 mg/m³; 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.
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

Appearance:	Physical state: liquid Colour: clear
Odour:	characteristic
Odour threshold:	no data available
pH value:	1.5 - 2.0
Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C
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:	approx. 1.2 g/ml
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:	Relative vapour density (air=1): > 1

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 hazardous reactions known.

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.

Thermal decomposition: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.
May cause irritations.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
Electrolytic vapours may form during the electrochemical process.
Harmful by inhalation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
May cause irritations.

Eye damage/irritation: Based on available data, the classification criteria are not met.
May cause irritations.

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.

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.

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

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 - 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
JT Baker Storage Color Code: Green (General Storage)

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

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

H225 = Highly flammable liquid and vapour.
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 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
Date of first version: 03.04.2009

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.