

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

1.1 Product identifier

Trade name: Electrolyte AE 30

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

General use: Electrolytic/electro-chem metal marking

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

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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)

Skin Corr. 1B; H314 Causes severe skin burns and eye damage.

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

C; R34 Causes burns.

Xn; R22 Harmful if swallowed.

2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements:

H314

Causes severe skin burns and eye damage.

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Safety precautions:	P102	Keep out of reach of children.
	P260	Do not breathe vapours.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
	P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	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 POISON CENTER/doctor.
	P405	Store locked up.
	P501	Dispose of contents/container to hazardous or special waste collection point.

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



C

corrosive

R phrase(s):	R 22	Harmful if swallowed.
	R 34	Causes burns.
S phrase(s):	S 2	Keep out of the reach of children.
	S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S 36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Special labelling

Text for labelling: Contains Ammonium hydrogendifluoride and Alcohol C9-11, ethoxylated.

2.3 Other hazards

Electrolytic vapours may form during the electrochemical process.
May be harmful if inhaled.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EINECS 235-186-4 CAS 12125-02-9	Ammonium chloride	< 15 %	EU: Xn; R22. Xi; R36. CLP: Acute Tox. 4; H302. Eye Irrit. 2; H319.
EINECS 215-676-4 CAS 1341-49-7	Ammonium hydrogendifluoride	< 5 %	EU: T, C; R 25, 34 CLP: Acute Tox. 3; H301. Skin Corr. 1B; H314.
EINECS - CAS 68439-46-3	Alcohol C9-11, ethoxylated	< 2.5 %	EU: Xn; R22. Xi; R41. CLP: Acute Tox. 4; H302. Eye Dam. 1; H318.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:	First aider: Pay attention to self-protection!
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 irritation, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently seek the immediate attention of an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Seek medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and 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

Fires in the immediate vicinity may cause the development of dangerous vapours. In the event of a fire, the following may be produced when the water evaporates: Chlorine decomposition products, ammonia, nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Hazchem-Code: 2X

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. Do not breathe vapour/aerosol. Wear protective equipment. Keep away from unprotected people.

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, eyes, and clothing. Do not breathe vapour/aerosol.
 Do not mix with other chemicals.
 Wear protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and dry.

Hints on joint storage:

Do not store together with strong acids or alkalis.
 Keep away from food and drink.

Storage class:

8 B = Non-combustible corrosive substances

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
12125-02-9	Ammonium chloride	Great Britain: WEL-STEL	20 mg/m ³ Smoke
		Great Britain: WEL-TWA	10 mg/m ³ Smoke
		Ireland: 15 minutes	20 mg/m ³
		Ireland: 8 hours	10 mg/m ³
1341-49-7	Ammonium hydrogendifluoride	Europe: IOELV: TWA	2.5 mg/m ³ (Fluorides, inorganic)
		Great Britain: WEL-TWA	2.5 mg/m ³ (calculated as F)
		Ireland: 8 hours	2.5 mg/m ³

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.
 Use filter type A-P3 according to EN 14387.

Hand protection:

Protective gloves according to EN 374.
 Glove material: Nitrile rubber or butyl caoutchouc (butyl rubber)
 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:

Take off immediately all contaminated clothing.
 Wash hands before breaks and after work.
 Avoid contact with skin and eyes.
 When using do not eat, drink or smoke.
 Work place should be equipped with a shower and an eye rinsing apparatus.

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

Appearance:	Physical state: liquid
Odour:	characteristic
Odour threshold:	no data available
pH value:	2.5 - 4.5
Melting point/freezing point:	no data available
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	not combustible
Evaporation rate:	no data available
Flammability:	no data available
Explosive properties:	no data available
Explosion limits:	no data available
Vapour pressure:	no data available
Vapour density:	no data available
Density:	no data available
Water solubility:	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

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Do not mix with other chemicals.

10.5 Incompatible materials

Strong acids and alkalis

10.6 Hazardous decomposition productsIn the event of a fire, the following may be produced when the water evaporates: Chlorine decomposition products, ammonia, nitrogen oxides (NO_x), 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 be harmful if swallowed.
Acute toxicity (dermal): Based on available data, the classification criteria are not met.
Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
Skin corrosion/irritation, eye damage/irritation: Skin Corr. 1B; H314 = Causes severe skin burns and eye damage.
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

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.

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.

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Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.
Handle contaminated packages in the same way as the substance itself.

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

ADR/RID, IMDG, IATA: 3264

14.2 UN proper shipping nameADR/RID, IMDG, IATA: UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Ammonium hydrogendifluoride)**14.3 Transport hazard class(es)**ADR/RID: Class 8, Code: C1
IMDG: Class 8, Subrisk -
IATA: Class 8**14.4 Packing group**

ADR/RID, IMDG, IATA: II

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user**Land transport (ADR/RID)**

Warning board:	ADR/RID: Kemmler-number 80, UN number 3264
Hazard label:	8
Special provisions:	274
Limited quantities:	1 L
EQ:	E2
Contaminated packaging - Instructions:	P001 IBC02
Special provisions for packing together:	MP15
Portable tanks - Instructions:	T11
Portable tanks - Special provisions:	TP2 TP27
Tank coding:	L4BN
Tunnel restriction code:	E

**Sea transport (IMDG)**

EmS:	F-A, S-B
Special provisions:	274
Limited quantities:	1 L
EQ:	E2
Contaminated packaging - Instructions:	P001
Contaminated packaging - Provisions:	-
IBC - Instructions:	IBC02
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T11
Tank instructions - Provisions:	TP2, TP27
Stowage and segregation:	Category B. Clear of living quarters.
Properties and observations:	Causes burns to skin, eyes and mucous membranes.
Segregation group:	none

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Air transport (IATA)

Hazard: Corrosive
EQ: E2
Passenger Ltd.Qty.: Pack.Instr. Y840 - Max. Net Qty/Pkg. 0.5 L
Passenger: Pack.Instr. 851 - Max. Net Qty/Pkg. 1 L
Cargo: Pack.Instr. 855 - Max. Net Qty/Pkg. 30 L
Special Provisioning: A3 A803
ERG: 8L

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

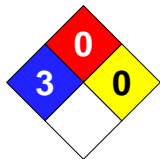
no data available

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations - Great Britain**

Hazchem-Code: 2X

National regulations - USA

Hazard rating systems:



NFPA Hazard Rating:

Health: 3 (Serious)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 3 (Serious)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

JT Baker Storage Color Code: Green (General Storage)

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Further information**

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

H301 = Toxic if swallowed.

H302 = Harmful if swallowed.

H314 = Causes severe skin burns and eye damage.

H318 = Causes serious eye damage.

H319 = Causes serious eye irritation.

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

R 22 = Harmful if swallowed.

R 25 = Toxic if swallowed.

R 34 = Causes burns.

R 36 = Irritating to eyes.

R 41 = Risk of serious damage to eyes.

Date of first version: 08.04.2014

Department issuing data sheet

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



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No 453/2010

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

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