

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 2015/830

Revision date: 2/7/2015

Version: 5

Language: en-GB,IE

Date of print: 31/7/2017

Electrolyte Aluminium

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

1.1 Product identifier

Trade name: Electrolyte Aluminium

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

General use: Electrolytic/electrochemical metal inscription
For industrial purposes only

1.3 Details of the supplier of the safety data sheet

Company name: Reuter GmbH & Co. KG

Street/POB-No.: Schimmelbuschstraße 9e
Postal Code, city: 40699 Erkrath
Deutschland

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1.4 Emergency Number:

Daniel González, Telefon: +49 (0)211 730604-30

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.

2.2 Label elements

Labelling (CLP)



Signal word: **Warning**

Hazard statements: H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash hands and face thoroughly after handling.

P280 Wear protective gloves and eye 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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2.3 Other hazards

Electrolytic vapours may form during signature processes under direct current voltage.
May be harmful if inhaled.
A corrosive effect cannot be ruled out because of the pH value.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

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

Hazardous ingredients:

Ingredient	Designation	Content	Classification
REACH 01-2119457026-42-xxxx EC No. 201-069-1 CAS 77-92-9	Citric acid, anhydrous	1 - 10 %	Eye Irrit. 2; H319.
REACH 01-2119487950-27-xxxx EC No. 235-186-4 CAS 12125-02-9	Ammonium chloride	1 - 10 %	Acute Tox. 4; H302. Eye Irrit. 2; H319.

Full text of H- and EUH-statements: see section 16.

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.
Following 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 consult an ophthalmologist.
After swallowing: Rinse mouth immediately and drink plenty of water.
Never give anything by mouth to an unconscious person.
If you feel unwell, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

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.

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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: Chlorine decomposition products, nitrogen oxides (NO_x), ammonia, 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. 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 section 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 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 and dry.

Storage temperature: 10 - 30 °C

7.3 Specific end use(s)

No information available.

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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

8.2 Exposure controls

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

Personal protection equipment

Occupational exposure controls

Respiratory protection: If vapours form, use respiratory protection.
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:

Change 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: liquid Colour: colourless
Odour:	characteristic
Odour threshold:	No data available
pH value:	1.5 - 2.5
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 100 °C
Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.03 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
Decomposition temperature:	No data available
Viscosity, kinematic:	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 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 products

In the event of a fire, the following may be produced when the water evaporates: Chlorine decomposition products, nitrogen oxides (NO_x), ammonia, carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

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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: Based on available data, the classification criteria are not met. A corrosive effect cannot be ruled out because of the pH value.
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.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: In case of spills of large quantities: 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 undiluted resp. in large quantities into surface water or into drains.

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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-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

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 and the IBC Code

No data available

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SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -
No data available

National regulations - EC member states

Labelling of packaging with <= 125mL content



Signal word: **Warning**

Hazard statements: not applicable

Precautionary statements: not applicable

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:

H302 = Harmful if swallowed.

H319 = Causes serious eye irritation.

Reason of change: General revision (Regulation (EU) No 2015/830)

Date of first version: 4/4/2008

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.