

# 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 Titanium

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

#### 1.1 Product identifier

Trade name: Electrolyte Titanium

#### 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

Firmenbezeichnung: Reuter GmbH & Co. KG  
  
Straße/Postfach: Schimmelbuschstraße 9e  
PLZ, Ort: 40699 Erkrath  
Deutschland  
WWW: www.oreuter.de  
E-Mail: mail@oreuter.de  
Telefon: +49 (0)211 730604-30  
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Auskunft gebender Bereich:  
Daniel González,  
Telefon: +49 (0)211 730604-30, Email: mail@oreuter.de

#### 1.4 Notrufnummer

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)  
This mixture is classified as not hazardous.

#### 2.2 Label elements

##### Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

#### 2.3 Other hazards

Electrolytic vapours may form during signature processes under direct current voltage.  
May be harmful if inhaled.

Results of PBT and vPvB assessment:  
No data available

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### 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 01-2119487950-27-xxxx EC No. 235-186-4 CAS 12125-02-9	Ammonium chloride	1 - 5 %	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.  
After contact with skin, wash immediately with plenty of 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. Consult an ophthalmologist.

After swallowing: Rinse mouth with water.  
Never give an unconscious person anything through the mouth.  
Do not induce vomiting.  
If you feel unwell, seek medical advice.

#### 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

Fires in the immediate vicinity may cause the development of dangerous vapours.  
In case of fire may be liberated: Chlorine decomposition products, nitrogen oxides (NOx).

#### 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.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance. Wear suitable protective clothing.  
Provide adequate ventilation. Do not breathe vapour/aerosol.

#### 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 the substance. 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.

#### 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 <sup>3</sup> Smoke
		Great Britain: WEL-TWA	10 mg/m <sup>3</sup> Smoke
		Ireland: 15 minutes	20 mg/m <sup>3</sup>
		Ireland: 8 hours	10 mg/m <sup>3</sup>

#### 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.

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Hand protection:	Protective gloves according to EN 374. Glove material: 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. When using do not eat, drink or smoke. Avoid contact with skin and eyes. Wash hands before breaks and after work.

## 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:	5.5 - 6.5
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
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.03 g/mL
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
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Refer to 10.3

### 10.2 Chemical stability

Product is stable under normal storage conditions.

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### 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<sub>x</sub>).

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: Lack of data.  
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

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### 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 99 = 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)

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.  
Handle contaminated packages in the same way as the substance itself.  
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.

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### 14.7 Transport in bulk according to Annex II of Marpol 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: -

No data available

### 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: 18/3/2008

### 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.