

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No 453/2010Revision date: 10/12/2014
Version: 5
Language: en-GB,IE
Date of print: 4/5/2015**Electrolyte ET**

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page: 1 of 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: Electrolyte ET

1.2 Relevant identified uses of the substance or mixture and uses advised againstGeneral use: Electrolytic/electrochemical metal inscription
For industrial purposes only**1.3 Details of the supplier of the safety data sheet**Company name: Bymat GmbH
Street/POB-No.: Neusser Straße 106
Postal Code, city: D - 41363 JüchenWWW: www.byhahn.de
E-mail: info@byhahn.de
Telephone: +49 (0) 21 65/87 28 -0Dept. responsible for information:
Telephone: +49 (0) 21 65/87 28 -0,
Email: info@byhahn.de**1.4 Emergency telephone number**

Telephone: +49 (0) 21 65/87 28 -0

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

Precautionary statements: not applicable

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

R phrase(s): not applicable

S phrase(s): not applicable

SAFETY DATA SHEET

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

Revision date: 10/12/2014
Version: 5
Language: en-GB,IE
Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 20105 ET / 2111 ET / 2115 ET

Page: 2 of 7

2.3 Other hazards

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

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
EC No. 233-826-7 CAS 10377-60-3	Magnesium nitrate	< 10 %	DSD/DPD: O, Xi; R 8, 36/38 CLP: Ox. Sol. 3; H272. Skin Irrit. 2; H315. Eye Irrit. 2; H319.

SECTION 4: First aid measures

4.1 Description of first aid measures

- In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles.
- Following skin contact: Change contaminated clothing.
After contact with skin, wash immediately with soap and 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. Subsequently 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:

Use extinguishing material as appropriate for the surrounding area.

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).

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No 453/2010

Revision date: 10/12/2014

Version: 5

Language: en-GB,IE

Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page:

3 of 7

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**

Do not breathe vapour/aerosol.

Avoid contact with skin and eyes.

Wear suitable protective clothing.

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, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

Do not allow to dry.

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.

Wear protective equipment.

Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed.

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**

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

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

SAFETY DATA SHEET

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

Revision date: 10/12/2014
Version: 5
Language: en-GB,IE
Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page: 4 of 7

Personal protection equipment

Occupational exposure controls

- Respiratory protection: Use a breathing protection against vapours/aerosol.
- 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. Do not breathe vapour/aerosol.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
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, clear
- Odour: odourless
- 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: no data available
- 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: 1.03 g/mL
- Water solubility: completely miscible
- Partition coefficient: n-octanol/water: no data available
- Auto-ignition temperature: not self-igniting
- Thermal decomposition: no data available
- Viscosity, dynamic: no data available
- Explosive properties: Product is not explosive.
- Oxidizing characteristics: no data available

9.2 Other information

- Additional information: no data available

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No 453/2010

Revision date: 10/12/2014

Version: 5

Language: en-GB,IE

Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page:

5 of 7

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

no data available

10.5 Incompatible materials

Strong acids and alkalis

10.6 Hazardous decomposition products

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).

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

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No 453/2010

Revision date: 10/12/2014

Version: 5

Language: en-GB,IE

Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page:

6 of 7

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 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.
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

SAFETY DATA SHEETaccording to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU)
No 453/2010

Revision date: 10/12/2014

Version: 5

Language: en-GB,IE

Date of print: 4/5/2015

Electrolyte ET

Material number 2101 ET / 2105 ET / 2111 ET / 2115 ET

Page: 7 of 7

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: -

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:

H272 = May intensify fire; oxidiser.

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

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

R 8 = Contact with combustible material may cause fire.

R 36/38 = Irritating to eyes and skin.

Reason of change: General revision

Date of first version: 10/11/2008

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.