

Safety data sheet

according to Regulation (EC) No 1907/2006 (REACH)

Printing date 02.02.2017

Version number 1

Revision: 31.01.2017

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

• 1.1 Product identifier

- Trade name: Electrolyte CO2
- Article number: 105175

- Description: Electrolyte solution

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

- Product category: PC21 Laboratory chemicals
- Process category: PROC15 Use as laboratory reagent
- Application of the substance / the preparation: Laboratory chemicals

• 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Xylem Analytics Germany GmbH
Dr.-Karl-Slevogt-Str. 1
82362 Weilheim
Germany

Contact: SI Analytics, Mainz
Tel. +49.(0)6131.66.5111

- Further information obtainable from: E-Mail: msds.si@xyleminc.com

- **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

SECTION 2: Hazards identification

• 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008:



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

• 2.2 Label elements:

- 2.2.1 Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms: GHS07

- Signal word: Warning

- Hazard-determining components of labelling:

ethylene glycol

- Hazard statements:

H302 Harmful if swallowed.

- Precautionary statements:

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

- **2.3 Other hazards** No further relevant information available.

SECTION 3: Composition/information on ingredients

• 3.2 Mixture

- Description:

Mixture, consisting of the following components:

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Ethylene glycol, water, potassium chloride, sodium hydrogen carbonate

• **Dangerous components:**

CAS: 107-21-1 EINECS: 203-473-3 Index number: 603-027-00-1	ethylene glycol	⚠ Acute Tox. 4, H302	50-100%
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• **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• **4.1 Description of first aid measures**

- **After inhalation:**
Supply fresh air.
Call a doctor immediately.
- **After skin contact:**
Wash with plenty of water.
Take off contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Make victim drink water immediately (2 glasses at most).
Seek immediate medical advice.

• **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

• **5.1 Extinguishing media**

• Suitable extinguishing agents: Water, carbon dioxide (CO₂), foam, extinguishing powder

• **5.2 Special hazards arising from the substance or mixture**

Development of flammable vapors in the event of fire.
Formation of toxic gases is possible during heating or in case of fire.

• **5.3 Advice for firefighters**

- **Protective equipment:**
Wear self-contained respiratory protective device.
No special measures required.
- **Additional information**
Suppress gases/fumes/haze with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

• **6.1 Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment (see section 8).
Ensure adequate ventilation
Do not inhale vapors.

• **6.2 Environmental precautions:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

• **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

• **6.4 Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

• 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Wear personal protective equipment (see section 8)

- Information about fire - and explosion protection: No special measures required.

• 7.2 Conditions for safe storage, including any incompatibilities

- Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

- Information about storage in one common storage facility: Not required.

- Further information about storage conditions: Keep container tightly sealed.

- 7.3 Specific end use(s) No further relevant information available.

* SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

• 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethylene glycol

IOELV	Short-term value: 104 mg/m ³ , 40 ppm
	Long-term value: 52 mg/m ³ , 20 ppm
	Skin

- Additional information: The lists valid during the making were used as basis.

• 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

- Respiratory protection:

Only required when fog or aerosols are generated or when the workplace is not sufficiently ventilated.

Filter: A

- Protection of hands: Protective gloves

- Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: $\geq 0,11$ mm

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses

- Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Not determined.

- Odour:

- Odour threshold:

- pH-value:

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• Change in condition Melting point/freezing point: Undetermined. Initial boiling point and boiling range: Undetermined.	
• Flash point:	Not applicable.
• Flammability (solid, gas):	Not applicable.
• Ignition temperature:	
Decomposition temperature:	Not determined.
• Auto-ignition temperature:	Product is not selfigniting.
• Explosive properties:	Product does not present an explosion hazard.
• Explosion limits: Lower: Upper:	Not determined. Not determined.
• Vapour pressure at 20 °C:	23 hPa
• Density at 20 °C: • Relative density • Vapour density • Evaporation rate	1,09 g/cm ³ Not determined. Not determined. Not determined.
• Solubility in / Miscibility with water:	Not miscible or difficult to mix.
• Partition coefficient: n-octanol/water:	Not determined.
• Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
• 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Do not heat.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

• 11.1 Information on toxicological effects

- Acute toxicity
Harmful if swallowed.

• LD/LC50 values relevant for classification:

107-21-1 ethylene glycol

Oral	LD50	4700 mg/kg (Rat)
Dermal	LD50	10600 mg/kg (Rabbit)

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

* SECTION 12: Ecological information

- **12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation
Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.
- Uncleaned packaging:
- Recommendation:
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

• 14.1 UN-Number	
• ADR/RID, ADN, IMDG, IATA	Void
• 14.2 UN proper shipping name	
• ADR/RID, ADN, IMDG, IATA	Void
• 14.3 Transport hazard class(es)	
• ADR/RID, ADN, IMDG, IATA	
• Class	Void
• 14.4 Packing group	
• ADR/RID, IMDG, IATA	Void
• 14.5 Environmental hazards:	Not applicable.
• 14.6 Special precautions for user	Not applicable.
• 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
• Transport/Additional information:	Not dangerous according to the above specifications.
• UN "Model Regulation":	Void

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* SECTION 15: Regulatory information

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

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

• Relevant phrases

H302 Harmful if swallowed.

• Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

- * Data compared to the previous version altered.