

Address Im Hackacker 15, CH-8902 Urdorf, Switzerland
Mail address P.O. Box, CH-8902 Urdorf, Switzerland
Phone +41-44-729 62 11
Fax +41-44-729 66 36
Bank Credit Suisse, 8070 Zurich, Clearing 4835
Account No. 370501-21-90 CHF/BAN CH71 0483 5037 0501 2109 0

www.mtpro.com

Safety Data Sheet

Electrolyte LiCl 1 mol/l in ethanol (9830)

1. Identification of the substance / preparation and the company / undertaking

Use of the substance / preparation	Electrolyte for pH electrodes.
Chemical characterization	Alcoholic solution.
Product code	51 319 051
Supplier	Mettler-Toledo AG Process Analytics Im Hackacker 15 CH-8902 Urdorf Switzerland Tel: +41-44-729 62 11 Fax: +41-44-729 66 36
Emergency telephone number	+41-44-251 51 51 (Tox Center)
Revision date	09.05.2007
Number	3

2. Composition / information on ingredients

Hazardous components	Ethanol, (>90 %), [F, R-11], CAS No. 64-17-5, EU No. 603-002-00-5, EINECS No. 200-578-6 Lithium chloride, (5 %), [Xn, R-22-36/38], CAS No. 7447-41-8, EINECS No. 231-212-3
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3. Hazards identification

Highly flammable.

4. First aid measures

Inhalation	Move to fresh air.
Skin contact	Wash off with soap and water.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Ingestion	Immediately give large quantities of water to drink. Consult a physician for severe cases.

5. Fire-fighting measures

Suitable extinguishing media	Use dry chemical, CO ₂ , water spray or alcohol foam.
Extinguishing media which must not be used for safety reasons	None.
Specific hazards	Solvents may produce excessive pressure under fire-conditions. Sealed containers may rupture and ignite.
Special protective equipment for firefighters	Standard procedure for chemical fires.

6. Accidental release measures

Personal precautions	Remove all sources of ignition. Ensure adequate ventilation.
Environmental precautions	Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Flush with water.

7. Handling and storage

Handling	Keep away from open flames, hot surfaces and sources of ignition. Vapours may form explosive mixtures with air.
Storage	Keep containers tightly closed in a cool, well-ventilated place.

8. Exposure control / personal protection

Exposure limit(s)	OEL value: 500 ppm (Ethanol) [Embryotoxic substance (group C): there is no reason to fear poisoning of the fetus as long as the exposure is below the OEL value]
Engineering measures to reduce exposure	Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.
Personal protection equipment: Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection	Gloves.
Eye protection	Safety glasses.
Skin and body protection	Long sleeved clothing.

9. Physical and chemical properties

Form	Liquid.
Colour	Colourless. Clear.
Odour	Alcoholic.
Physical and chemical properties	pH: 7 Boiling point/range: ~80 °C Relative density: <1 g/ml Flash point: <23 °C Water solubility: completely miscible

10. Stability and reactivity

Stability	Stable under recommended storage conditions.
Conditions to avoid	Vapours may form explosive mixture with air.
Materials to avoid	Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.

11. Toxicological information

Acute toxicity	Ethanol: LC50/inhalation/1h/rat = 20000 ppm. LD50/oral/rat = 7060 mg/kg. LD50/oral/mouse = 3450 mg/kg.
Local effects	Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Long term toxicity	Chronic intensive skin contact may cause dermatitis.
Sensitization	None.

12. Ecological information

Ecotoxicity	Wastewater from subsequent processing should be given appropriate treatment in line with local regulations. EC50/24h/daphnia = >10000 mg/l. LC50/48h/golden orfe = >10000 mg/l.
Mobility	No data is available on the product itself.
Bioaccumulation	Does not bioaccumulate.

13. Disposal considerations

Waste from residues / unused products	Can be incinerated, when in compliance with local regulations. European Waste catalogue code (EWC-code): 14 06 03.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities. Dispose of as unused product.

14. Transport information

ADR/RID	Proper shipping name:	Ethanol solution
	UN No.:	1170
	Kemler code:	33
	Class:	3
	Packing group:	II
	ADR/RID-Labels:	3
IMO	Proper shipping name:	Ethanol solution
	UN No.:	1170
	Class:	3
	Packing group:	II
	IMO-Labels:	3
	EMS:	F-E, S-D
IATA	Proper shipping name:	Ethanol solution
	UN No.:	1170
	Class:	3
	Packing group:	II
	IATA-Labels:	3

15. Regulatory information

Regulatory information	The product is classified and labelled in accordance with EC directives or respective national laws.
Symbol(s)	F - Highly flammable.
R-phrase(s)	R11: Highly flammable.
S-phrase(s)	S9: Keep container in a well-ventilated place.
	S16: Keep away from sources of ignition – No smoking.
	S33: Take precautionary measures against static discharges.

16. Other information

Recommended use

For industrial application only.

**Text of R phrases mentioned
in section 2**

R11: Highly flammable.

R22: Harmful if swallowed.

R36/38: Irritating to eyes and skin.

End use

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. It is not to be considered a warranty or quality specification.
