

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.03.2020

Version number 2

Revision: 18.03.2020

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

· 1.1 Product identifier

- Trade name: **Elektrolyt: Kalilauge 1 mol/l**

· 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:** Water analysis

· 1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH
Sensortechnik Meinsberg
Meinsberg, Kurt-Schwabe-Straße 6
D-04736 Waldheim
Germany
Tel. +49 34327 623-0

- **Further information obtainable from:** Email: info@meinsberg.de

· 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:**



GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

· 2.2 Label elements:

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

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

- **Hazard pictograms:** GHS05

- **Signal word:** Danger

- **Hazard-determining components of labelling:**

potassium hydroxide

- **Hazard statements:**

H314 Causes severe skin burns and eye damage.

- **Precautionary statements:**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER.

P309 IF exposed or if you feel unwell:

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- **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:
Water, potassium hydroxide

· Dangerous components:

CAS: 1310-58-3	potassium hydroxide	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	5 – < 10%
EINECS: 215-181-3			
Index number: 019-002-00-8			

- **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 or oxygen; call for doctor.
- **After skin contact:**
Wash with plenty of water.
Take off contaminated clothing.
Call a doctor immediately.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
Call a doctor immediately.
- **After swallowing:**
Make victim drink water immediately (2 glasses at most).
Do not induce vomiting (risk of perforation)
Call a doctor immediately.
- **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:** The product is not flammable. Extinguishing agent to suit environment.

· 5.2 Special hazards arising from the substance or mixture

Formation of hazardous gases or vapors is possible.

· 5.3 Advice for firefighters

· Protective equipment:

Wear self-contained respiratory protective device.
Wear chemical protective clothing in the case of heavy toxic load.

- **Additional information** 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).

· 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.

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Wash off residuals with water.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 13 for disposal information.

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.

Do not use light alloy receptacles.

- **Information about storage in one common storage facility:** Do not store together with acids.

- **Further information about storage conditions:** Store tightly sealed at temperatures between 15 °C and 25 °C.

· 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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **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:

Use suitable respiratory protective device only when aerosol or mist is formed.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Recommended Filter type:** Filter P2

· Protection of hands: Protective gloves

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

· Eye protection: Safety glasses

· Body protection: Protective work clothing

· Limitation and supervision of exposure into the environment

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.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
· Form:	Fluid
· Colour:	Colourless
· Odour:	Odourless
· pH-value at 20 °C:	14
· Change in condition	
· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	110 °C
· Flash point:	Not applicable.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Density at 20 °C:	1.06 g/cm ³
· Solubility in / Miscibility with water:	
	Fully miscible.
· 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**
 - Exothermic reaction with acids.
 - Formation of hydrogen possible with metals and alloys (risk of explosion).
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
 - Acids
 - Metals

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:		
1310-58-3 potassium hydroxide		
Oral	LD50	273 mg/kg (Rat)

- **Primary irritant effect:**
 - **Skin corrosion/irritation**
 - Causes severe skin burns and eye damage.
 - **Serious eye damage/irritation**
 - Severe irritations, risk of cornea cloudiness, risk of blindness.
 - Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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- **Acute effects (acute toxicity, irritation and corrosivity):**
If ingested, severe burns of the mouth and throat, as well as a danger of the perforation of the oesophagus and the stomach.
- **CMR effects (carcinogenity, 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:** Detrimental effect due to shift of pH value.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.
 - **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.

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.
 - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---------------------------------------|------------------------------|
| · 14.1 UN-Number | |
| · ADR/RID, IMDG, IATA | UN1814 |
| · 14.2 UN proper shipping name | |
| · ADR/RID, IMDG, IATA | POTASSIUM HYDROXIDE SOLUTION |

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· 14.3 Transport hazard class(es)	
· ADR/RID, IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR/RID, IMDG, IATA	II
· 14.5 Environmental hazards:	
Not applicable.	
· 14.6 Special precautions for user	
Warning: Corrosive substances.	
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	
Not applicable.	
· ADR/RID	
· Limited quantities (LQ)	1L
· UN "Model Regulation":	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

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.
- H314 Causes severe skin burns and eye damage.

· 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 - oral – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1