

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 1 of 10

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

**1.1. Product identifier**

Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

Company name:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.de	
Responsible Department:	Abteilung Produktsicherheit	

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Met. Corr. 1; H290  
Flam. Liq. 2; H225  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 2 of 10

**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P390 Absorb spillage to prevent material damage.
- P403+P235 Store in a well-ventilated place. Keep cool.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Mixtures

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-17-5	ethanol			85 - < 90 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
1310-58-3	potassium hydroxide			< 1 %
	215-181-3	019-002-00-8	01-2119487136-33	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A; H290 H302 H314			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-17-5	200-578-6	ethanol	85 - < 90 %
	inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100		
1310-58-3	215-181-3	potassium hydroxide	< 1 %
	oral: LD50 = 333 mg/kg Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**After inhalation**

- Provide fresh air.
- Call a doctor if you feel unwell.

**After contact with skin**

- Wash immediately with: Water
- Take off immediately all contaminated clothing and wash it before reuse.
- Call a physician immediately.

**After contact with eyes**

- In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 3 of 10

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
Observe risk of aspiration if vomiting occurs.  
Call a physician immediately.

**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**

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

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

Combustible liquids  
Hazardous combustion products  
In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide  
Vapours are heavier than air, spread along floors and form explosive mixtures with air.  
Heating causes rise in pressure with risk of bursting.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures**

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

**General advice**

Keep away from sources of ignition - No smoking.  
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).  
Take action to prevent static discharges.  
Corrosive to metals.

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.  
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 4 of 10

basements in higher concentration.

Danger of explosion

**6.3. Methods and material for containment and cleaning up**

**For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

**Advice on protection against fire and explosion**

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep in a cool, well-ventilated place.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Further information on storage conditions**

Keep cool. Protect from sunlight.

Unsuitable container/equipment material: Metal

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 5 of 10

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
64-17-5	Ethyl alcohol	1000	-		STEL (15 min)	
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	DNEL type	Exposure route	Effect	Value
64-17-5	ethanol	Worker DNEL, long-term	inhalation	systemic	950 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	114 mg/m <sup>3</sup>
		Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
1310-58-3	potassium hydroxide	Worker DNEL, long-term	inhalation	local	1 mg/m <sup>3</sup>
		Consumer DNEL, long-term	inhalation	local	1 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	Environmental compartment	Value
64-17-5	ethanol	Freshwater	0,96 mg/l
		Freshwater (intermittent releases)	2,75 mg/l
		Marine water	0,79 mg/l
		Freshwater sediment	3,6 mg/kg
		Marine sediment	2,9 mg/kg
		Secondary poisoning	380 mg/kg
		Micro-organisms in sewage treatment plants (STP)	580 mg/l
		Soil	0,63 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles  
Face protection umbrella

**Hand protection**

Wear suitable gloves.

**Skin protection**

Take off immediately all contaminated clothing and wash it before reuse.  
Wear fire resistant or flame retardant clothing.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Draw up and observe skin protection programme.

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 6 of 10

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	clear
Odour:	characteristic

**Changes in the physical state**

Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	>35 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
:	No data available
Flash point:	<21 °C

**Flammability**

Solid/liquid:	No data available
Gas:	No data available

**Explosive properties**

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Auto-ignition temperature:	No data available

**Self-ignition temperature**

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Water solubility:	No data available

**Solubility in other solvents**

No data available

Partition coefficient n-octanol/water:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	0,828 g/cm <sup>3</sup>
Bulk density:	No data available
Relative vapour density:	No data available

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 7 of 10

**9.2. Other information**

**Information with regard to physical hazard classes**

Oxidizing properties  
No data available

**Other safety characteristics**

Solvent separation test: No data available  
Solid content: No data available  
Evaporation rate: No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Vapours may form explosive mixtures with air.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Oxidising agent

**10.4. Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**10.5. Incompatible materials**

Metal

**10.6. Hazardous decomposition products**

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol				
	oral	LD50 mg/kg	10470	Rat	Study report (1976) OECD Guideline 401
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	Study report (1980) OECD Guideline 403
1310-58-3	potassium hydroxide				
	oral	LD50 mg/kg	333	Rat	Fund. Appl. Toxicol., 8, 97-100 (1987) OECD Guideline 425

**Irritation and corrosivity**

Causes skin irritation.  
Causes serious eye irritation.

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 8 of 10

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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**

CAS No	Chemical name		Dose	[h]   [d]	Species	Source	Method
64-17-5	ethanol						
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-009, 1975
	Acute algae toxicity	ErC50 mg/l	ca. 22000	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11
	Algae toxicity	NOEC mg/l	5400	5 d	Skeletonema costatum	Environ Toxicol Chem 8(5):451-455. (1989)	Study to determine the sensitivity of a
	Crustacea toxicity	NOEC	2 mg/l	10 d	Ceriodaphnia dubia	Arch Environ Contam Toxicol 20(2):211-21	Follows the basic methodology for the th

**12.3. Bioaccumulative potential**

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-17-5	ethanol	-0,77

**BCF**

CAS No	Chemical name	BCF	Species	Source
64-17-5	ethanol	1	Cyprinus carpio	Comparative Biochemi

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.  
Avoid release to the environment.

**SECTION 13: Disposal considerations**



**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 9 of 10

**13.1. Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 2924
<b>14.2. UN proper shipping name:</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, potassium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	338
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 2924
<b>14.2. UN proper shipping name:</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, potassium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 2924
<b>14.2. UN proper shipping name:</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, potassium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3+8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-C

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 2924
<b>14.2. UN proper shipping name:</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol, potassium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Kaliumhydroxid-Lösung 0,1 mol/l - 0,1 N Lösung ethanolisch, Reag. Ph. Eur., Kapitel 4.2.2**

Revision date: 16.05.2022

Product code: 31788

Page 10 of 10

Hazard label:	3+8	
Special Provisions:	A3	
Limited quantity Passenger:	0.5 L	
Passenger LQ:	Y340	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		352
IATA-max. quantity - Passenger:		1 L
IATA-packing instructions - Cargo:		363
IATA-max. quantity - Cargo:		5 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 1.

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method

**Relevant H and EUH statements (number and full text)**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*