



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Lacklöser "C-AK S" / Ethylenglykolmonoethylether in Wasser - mit Natronlauge-Zusatz**

Revision date: 28.11.2024

Product code: 32490

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**Pictograms:**



**Hazard statements**

- H226 Flammable liquid and vapour.
- H290 May be corrosive to metals.
- H302+H332 Harmful if swallowed or if inhaled.
- H314 Causes severe skin burns and eye damage.
- H360FD May damage fertility. May damage the unborn child.

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- 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/doctor.

**2.3. Other hazards**

No data available

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

**3.2. Mixtures**

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
110-80-5	2-ethoxyethanol			20 - < 25 %
	203-804-1	603-012-00-X	01-2119560582-38	
	Flam. Liq. 3, Repr. 1B, Acute Tox. 3, Acute Tox. 4; H226 H360FD H331 H302			
10213-79-3	disodium silicate pentahydrate			5 - < 10 %
	229-912-9	014-010-00-8	01-2119449811-37	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1B, STOT SE 3; H290 H302 H314 H335			
1310-73-2	sodium hydroxide			1 - < 5 %
	215-185-5	011-002-00-6	01-2119457892-27	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			

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

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

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
110-80-5	203-804-1	2-ethoxyethanol	20 - < 25 %
		inhalation: LC50 = 4000 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: LD50 = 3000 mg/kg	
10213-79-3	229-912-9	disodium silicate pentahydrate	5 - < 10 %
		oral: ATE = 500 mg/kg	
1310-73-2	215-185-5	sodium hydroxide	1 - < 5 %
		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 mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:  
2-ethoxyethanol; ethylene glycol monoethyl ether

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

No data available

#### After inhalation

Provide fresh air.  
Call a physician immediately.

#### 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

Rinse immediately carefully and thoroughly with eye-bath or water.  
Call a physician immediately.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
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

Foam  
Carbon dioxide (CO<sub>2</sub>)  
Extinguishing powder  
Water

#### Unsuitable extinguishing media

no restriction

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

Combustible liquids  
Hazardous combustion products

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In case of warning:

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

#### **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

Consult an expert

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.

#### **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**

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**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**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

In case of warming:

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

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**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**

Store in a well-ventilated place.  
Keep container tightly closed.  
Store in a place accessible by authorized persons only.

**Hints on joint storage**

No data available

**Further information on storage conditions**

Keep cool. Protect from sunlight.  
Store in a place accessible by authorized persons only. Unsuitable container/equipment material: Metal

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

Laboratory chemicals

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

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
110-80-5	2-Ethoxyethanol	5	18		TWA (8 h)	
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	

**Biological limit values**

CAS No	Substance	Parameter	Value	Test material	Sampling time
110-80-5	2-Ethoxyethanol	2-Ethoxyacetic acid	50 mg/L	Urine	Measure at end of workweek

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**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
1310-73-2	sodium 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>

**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**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 897 Butoject®

Recommended material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 730 Camatril® Velours

Recommended material: NBR (Nitrile rubber) 0,4 mm

Wearing time with occasional contact (splashes): > 267min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**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.

**Respiratory protection**

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

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

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

Physical state:

Liquid

Colour:

colourless

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Odour:	characteristic	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		>35 °C
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		>23 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		alkaline
Viscosity / kinematic:		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 (at 20 °C):		1,06018 g/cm <sup>3</sup>
Bulk density:		No data available
Relative vapour density:		No data available

#### 9.2. Other information

##### Information with regard to physical hazard classes

###### Explosive properties

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

###### Sustaining combustion:

No data available

###### Self-ignition temperature

###### Solid:

No data available

###### Gas:

No data available

###### Oxidizing properties

No data available

##### Other safety characteristics

###### Evaporation rate:

No data available

###### Solvent separation test:

No data available

###### Solvent content:

No data available

###### Solid content:

No data available

###### Sublimation point:

No data available

###### Softening point:

No data available

###### Pour point:

No data available

###### Viscosity / dynamic:

(at 20 °C)

No data available

###### Flow time:

No data available

##### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

In case of warming:

Vapours may form explosive mixtures with air.

Corrosive to metals.

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**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No data available

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

No data available

**Further information**

No data available

**SECTION 11: Toxicological information**

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

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Harmful if swallowed.

Harmful if inhaled.

**ATEmix calculated**

ATE (oral) 1849 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 14,50 mg/l; ATE (inhalation dust/mist) 2,417 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
110-80-5	2-ethoxyethanol				
	oral	LD50 3000 mg/kg	rat, guinea pig	J Int Hyg Toxicol 23	Method: other: Acute
	inhalation (4 h) vapour	LC50 4000 mg/l	Rat	A.M.A. Arch. Ind. He	Method: other: Acute
	inhalation dust/mist	ATE 0,5 mg/l			
10213-79-3	disodium silicate pentahydrate				
	oral	ATE 500 mg/kg			

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

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

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

May damage fertility. May damage the unborn child. (2-ethoxyethanol)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

**STOT-single exposure**

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

Liver and kidney damage

**STOT-repeated exposure**

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



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**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards**

**Other information**

No data available

**Further information**

No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
110-80-5	2-ethoxyethanol					
	Acute fish toxicity	LC50 > 10000 mg/l	96 h	Lepomis macrochirus, and Menidia beryllina	Dawson, G.W. et al.,	Method: other: Acute
	Acute bacteria toxicity	EC50 4,79 mg/l ( )	0,5 h	Photobacterium phosphoreum	Water Poll. Res. J.	Method: other: Micro
1310-73-2	sodium hydroxide					
	Acute crustacea toxicity	EC50 40,4 mg/l	48 h	Ceriodaphnia sp.	Ecotoxicology and Environmental Safety,4	other: acute 48-h immobilization test ac

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
110-80-5	2-ethoxyethanol	0,32

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**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.

**Further information**

Avoid release to the environment.

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**SECTION 13: Disposal considerations**

**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. (2-ethoxyethanol, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	38
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. (2-ethoxyethanol, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

**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. (2-ethoxyethanol, sodium hydroxide)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3+8
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
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. (2-ethoxyethanol, sodium hydroxide)

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<b>14.3. Transport hazard class(es):</b>	3	
<b>14.4. Packing group:</b>	III	
Hazard label:	3+8	
Special Provisions:	A3 A803	
Limited quantity Passenger:	1 L	
Passenger LQ:	Y342	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		354
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		365
IATA-max. quantity - Cargo:		60 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**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):  
2-ethoxyethanol

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 1,9,12.

**Abbreviations and acronyms**

- Met. Corr: Substance or mixture corrosive to metals
- Flam. Liq: Flammable liquid
- Acute Tox: Acute toxicity
- Skin Corr: Skin corrosion
- Eye Dam: Eye damage
- Repr: Reproductive toxicity
- STOT SE: Specific target organ toxicity - single exposure

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**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. 3; H226	On basis of test data
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Repr. 1B; H360FD	Calculation method

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

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.

**Further Information**

Provide appropriate information, instructions and training to users

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