

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

**Kalilaug 20%**Version 1.0  
Revision Date 01.06.2010

Print Date 29.11.2013

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : KALILAUGE 20%  
Use : Chemical intermediate  
Supplier : BCD Chemie GmbH  
Schellerdamm 16  
DE 21079 Hamburg  
Responsible Department : Umwelt / Sicherheit  
Telephone : +49 (0)69-40101-71  
Telefax : +49 (0)69-40101-34  
Emergency telephone : +49 (0)208-7828-0  
E-mail address : InfoSDB@bcd-chemie.de

**2. HAZARDS IDENTIFICATION****Risk advice to man and the environment**

C R35 Causes severe burns.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Aqueous solution

**Hazardous components**

potassium hydroxide Concentration: 20,00 %  
CAS-No.: 1310-58-3 EC-No.: 215-181-3 Index-No.: 019-002-00-8  
Classification: Xn; R22 C; R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

General advice : Take off all contaminated clothing immediately.  
Inhalation : In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.  
Skin contact : Wash off immediately with plenty of water. Call a physician immediately.  
Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.  
Ingestion : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.
- Specific hazards during fire fighting : Gives off hydrogen by reaction with base metals (zinc, aluminium). Risk of explosion.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Additional advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Use personal protective equipment. Keep away unprotected persons. Danger of slipping if spilled Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.
- Methods for cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal.
- Additional advice : Treat recovered material as described in the section "Disposal considerations".

**7. HANDLING AND STORAGE****Handling**

- Advice on safe handling : Keep container tightly closed. Use personal protective equipment. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol are released. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
- Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection. Gives off hydrogen by reaction with metals. Risk of explosion.

**Storage**

- Requirements for storage areas and containers : Keep in an area equipped with alkali resistant flooring. Store in original container.
- Advice on common storage : Keep away from food, drink and animal feedingstuffs. Do not store together with acids and ammonium salts.

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Further information on storage conditions : Keep container tightly closed. Keep in a well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters****potassium hydroxide** CAS-No.: 1310-58-3  
VLA-EC: 2 mg/m<sup>3</sup>, VLA (ES)**Personal protective equipment**

Respiratory protection : Required, if exposure limit is exceeded (e.g. OEL). Use respirator with appropriate filter if vapours or aerosol are released. Recommended Filter type: Particle filter:P2, Particle filter:P3

Hand protection : The glove material has to be impermeable and resistant to the product / the substance / the preparation.  
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).  
Protective gloves should be replaced at first signs of wear.

Material	strength of material	Break through time
butyl-rubber	0,5 mm	>= 8 h
Natural Rubber	0,5 mm	>= 8 h
polychloroprene	0,5 mm	>= 8 h
Nitrile rubber	0,35 mm	>= 8 h
Fluorinated rubber	0,4 mm	>= 8 h
Polyvinylchloride	0,5 mm	>= 8 h

Eye protection : Tightly fitting safety goggles  
Body Protection : alkali resistant protective clothing  
Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.**Engineering measures**

Refer to protective measures listed in sections 7 and 8.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**Form : liquid  
Colour : colourless

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Odour : odourless

**Safety data**Melting point/range : 0 °C  
Boiling point/boiling range : 100 °C  
Explosive properties : Product is not explosive.  
Density : 1,185 g/cm<sup>3</sup>; 20 °C  
pH : 14; 20 °C**10. STABILITY AND REACTIVITY**Materials to avoid : Acids  
Hazardous decomposition products : None known.  
Hazardous reactions : Gives off hydrogen by reaction with base metals (zinc, aluminium). Risk of explosion. Reacts exothermic with water  
Reacts exothermic with acids.  
General advice : No decomposition if stored and applied as directed.**11. TOXICOLOGICAL INFORMATION**Ingestion : LD50 rat 273 mg/kg  
Skin contact : rabbit corrosive effects  
Eye contact : rabbit corrosive effects, Risk of serious damage to eyes.  
Sensitisation : guinea pig: not sensitizing:  
Further information : All numerical values for acute toxicity are calculated on the pure substances. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

Biodegradability : The methods for determining biodegradability are not applicable to inorganic substances.

**Ecotoxicity effects**Toxicity to fish : LC50 Gambusia affinis 80 mg/l 96 h  
LC50 Poecilia reticulata 165 mg/l 24 h  
Toxicity to bacteria : EC50 Photobacterium phosphoreum 22 mg/l 15 min**Further information on ecology**

Additional ecological information : All numerical values for ecotoxicity effects are calculated on the pure substances. Do not flush into surface water or sanitary sewer system. Harmful effects to aquatic organisms due to pH-

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shift. Neutralization is normally necessary before waste water is discharged into water treatment plants.

**13. DISPOSAL CONSIDERATIONS**

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
- Packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

**14. TRANSPORT INFORMATION**

- ADR** : UN-Number **1814**  
Class 8  
Packaging group II  
Classification Code C5  
Labels 8  
Hazard identification No 80  
Labeling according to 5.2.1.8 no  
ADR  
Description of the goods POTASSIUM HYDROXIDE SOLUTION
- RID** : UN-Number **1814**  
Class 8  
Packaging group II  
Classification Code C5  
Labels 8  
Hazard identification No 80  
Labeling according to 5.2.1.8 no  
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<b>IMDG</b>	: UN-Number	<b>1814</b>
	Class	8
	Packaging group	II
	Labels	8
	EmS	F-A, S-B
	Labeling according to 5.2.1.6.3 IMDG	no
	- Classification as environmentally hazardous according to 2.9.3 IMDG	no
	- Classified as "P" according to 2.10 IMDG	no
	Description of the goods	POTASSIUM HYDROXIDE SOLUTION

**15. REGULATORY INFORMATION****Labelling according to EC Directives**

The product is classified and labelled in accordance with EC directives or respective national laws.



C Corrosive

R-phrase(s)	R35	Causes severe burns.
S-phrase(s)	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S37/39	Wear suitable gloves and eye/face protection.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazardous components which must be listed on the label:  
potassium hydroxide**National legislation****16. OTHER INFORMATION**

Full text of R-phrases referred to under sections 2 and 3

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R22 Harmful if swallowed.  
R35 Causes severe burns.**Further information**

Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

|| Indicates updated section.