

1744300

Printing date: 02.11.2016

Reviewed on: 02.11.2016

**01 Identification of substance**

- **1.1 Product details:**
- **Trade name:**  
ALKALINE BASE ALK
- **Article number:**  
000898
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
See the following or attachments.
- **Sector of Use**  
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the preparation**  
Cleaning material/ Detergent
- **1.3 Supplier details:**
- **Manufacturer/Supplier:**  
WIGOL W Stache GmbH  
chemische Fabrik  
Textorstraße 2  
D-67547 Worms  
Fax : +49-(0)6241-414141  
Tel.: +49-(0)6241-4141-0
- **Informing department:**  
Laboratory Department  
TEL:+49(0)6241 4141 0; FAX:+49(0)6241 4141 41; mail: kontakt@wigol.de
- **1.4 Emergency information:**  
TEL: +49 (0) 6131 19240  
Poison Information Center Mainz, Germany  
<http://www.giftinfo.uni-mainz.de/>

**02 Hazard identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05

Met. Corr.1 - H290 May be corrosive to metals.  
Skin Corr. 1A - H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 - H302 Harmful if swallowed.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**

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



GHS05 GHS07

- **Signal word**  
Danger

- **Hazard-determining components of labelling:**  
Potassium Hydroxide / Sodium Hydroxide
- **Hazard statements**  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

(continued on page 2)

**PRODUCT : ALKALINE BASE ALK**

(continued of page 1)

- H302 Harmful if swallowed.
- **Precautionary statements**
    - P260 Do not breathe dust/fume/gas/mist/vapours/spray.
    - 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 shower.
    - P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
    - 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.
    - P406 Store in corrosive resistant container with a resistant inner liner.
    - P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.
  - **2.3 Additional information:**
  - **Results of PBT and vPvB assessment**  
According to Annex XIII, XIV of Regulation (EC) No.1907/2006 concerning REACH Not fulfilling PBT (persistent bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent/very bioaccumulative) criteria. Self classification
  - **PBT:**  
Not applicable.
  - **vPvB:**  
Not applicable.

**03 Composition/Data on components**

- **3.2 Chemical characterization**
- **Description:**  
Solution of substances listed below with non declarable additions.

• **Dangerous components:**

CAS NO.	Description Index R-phrases	%
1310-58-3	<b>Potassium Hydroxide</b> EC Number: 215-181-3 Record number 01-2119487136-33 ☞ Met. Corr.1 - H290, Skin Corr. 1A - H314; ⚠ Acute Tox. 4 - H302	>15,0-<30,0
1310-73-2	<b>Sodium Hydroxide</b> EC Number: 215-185-5 Record number 01-2119457892-27 ☞ Met. Corr.1 - H290, Skin Corr. 1A - H314	>5,0-<15,0
	• Regulation (EC) No 648/2004 on detergents / Labelling for contents <i>phosphonates, non-ionic surfactants, amphoteric surfactants</i>	< 5%

**04 First aid measures**

- **4.1 Description of first aid measures**
- **General information**  
Instantly remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
Personal protection for the First Aider.
- **After inhalation**  
Supply fresh air or oxygen; call for doctor.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. Then consult doctor.

(continued on page 3)

**PRODUCT : ALKALINE BASE ALK***(continued of page 2)*

- Use eye protection.
- **After swallowing**  
Rinse out mouth.  
Drink copious amounts of water and provide fresh air. Instantly call for doctor.  
Do not induce vomiting; instantly call for medical help.  
During spontaneous vomiting hold the head of the casualty onto low with the body in a prone position in order to avoid the penetration of vomit into the air tube.
- **Information for doctor**  
Typical caustic burns. Symptoms of acute poisoning: The local damage proceeds very quickly, initially without any or little (inadequate!) sensation of pain. Eyes: in particular damage to the conjunctives, cornea, sclera (edema, ulceration/perforation, opacity of the cornea), more seldom even to the retina and choroidea; there is a danger of blindness! Skin: erythema -> erosion with swelling of the tissue showing soft, gelatinous surface (colliquative necrosis), -> deficient skin function (rule of nines!) Inhalation: tussive irritation, following massive inhalation possible dyspnoea, stridor, danger of laryngospasm/glottic edema, pulmonary edema, bronchopneumonia Ingestion: painful reddening/glassy swelling of the mucous membranes of the mouth/tongue (however, signs of corrosion can also be absent!); pain behind the sternum and in the epigastrium, dysphagia, under certain circumstances emesis (danger of aspiration); in serious cases rapid entry of collapse/shock (sometimes fatal); Information see: GESTIS-database on hazardous substances [www.dguv.de/ifa/gestis/gestis-stoffdatenbank/](http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/)
- **4.2 The following symptoms may occur:**  
No further relevant information available.
- **Danger**  
No further relevant information available.
- **Treatment**  
No further relevant information available.

**05 Fire fighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**  
Not known.
- **5.2 Special hazards caused by the material, its products of combustion or flue gases:**  
Carbon oxides (CO<sub>x</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Keep breathing equipment ready.  
Wear protective equipment. Keep unprotected persons away.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**06 Accidental release measures**

- **6.1 Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Measures for environmental protection:**  
Dilute with much water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- **6.3 Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose of the material collected according to regulations.  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Additional information:**  
Other regulations, limitations and prohibitive regulations see chapter 15

**PRODUCT : ALKALINE BASE ALK**

(continued of page 3)

**07 Handling and storage**

- **Handling**
- **7.1 Information for safe handling:**  
Prevent formation of aerosols.  
Ensure good ventilation/exhaustion at the workplace.  
Do not mix with acid products
- **Information about protection against explosions and fires:**  
No special measures required.
- **Technically and precautionary measures**  
Store in the original bundle.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Observe official regulations on storing packagings with dangerous goods
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from frost.  
Protect from heat and direct sunlight.
- **Storage class**  
8 B  
Storage classes according TRGS 510
- **7.3 Specific end use(s)**  
No further relevant information available.

**08 Exposure controls and personal protection**

- **Additional information about design of technical systems:**  
No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**  
**CAS No.**                      **Designation of material**  
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 that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Wash hands during breaks and at the end of the work.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Avoid contact with the eyes and skin.  
Other regulations, limitations and prohibitive regulations see chapter 15
- **Breathing equipment: Use breathing protection when aerosol or mist is formed (FFP2SL) Other regulations, limitations and prohibitive regulations see chapter 15**
- **Protection of hands: Alkaline resistant protection gloves - EN 374 (Butyl india rubber, Viton) Other regulations, limitations and prohibitive regulations see chapter 15 Preventive skin protection by use of skin-protecting agents is recommended.**
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(continued on page 5)

**PRODUCT : ALKALINE BASE ALK**

(continued of page 4)

- **Eye protection:** Tightly sealed goggles (EN 166) Other regulations, limitations and prohibitive regulations see chapter 15
- **Body protection:** Protective work clothing EN 340 - Protective clothing, general requirements  
Chemical protective clothing - EN 463 following Other regulations, limitations and prohibitive regulations see chapter 15

**09 Physical and chemical properties**

<b>9.1 Information on basic physical and chemical properties</b>	
<b>Appearance</b>	
<b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Colour:</b>	Yellow-brown
<b>Smell:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>ph-value:</b>	at 20 °C 12,8+-0,3 ( 10,000 g/l Wasser g/l water)
<b>CHANGE IN CONDITION range/value unit method</b>	
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	> 100 °C
<b>Flash point:</b>	Not applicable
<b>Inflammability (solid, gaseous)</b>	Not applicable.
<b>Ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	Not determined.
<b>Self-inflammability</b>	Not determined.
<b>Danger of explosion:</b>	Product is not explosive.
<b>Critical values for explosion:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Steam pressure:</b>	Not determined.
<b>Density</b>	1,3800 - 1,4100 g/cm <sup>3</sup> 20°C
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0,00 %
<b>9.2 Additional information</b>	No further relevant information available.

**10 Stability and reactivity**

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
No dangerous reactions known.
- **10.4 Conditions to avoid**  
No further relevant information available.
- **10.5 Materials to be avoided:**  
No further relevant information available.
- **Dangerous reactions**  
Reacts with base metals forming hydrogen.
- **10.6 Dangerous products of composition:**  
No dangerous decomposition products known

**PRODUCT : ALKALINE BASE ALK**

(continued of page 5)

**11 Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
  - 1310-58-3 Potassium Hydroxide**  
Oral, LD50: 333 mg/kg (rat)
  - 1310-73-2 Sodium Hydroxide**  
Oral, LD50: >2000 mg/kg (rat)  
Dermal, LD50: >2000 mg/kg (rat) (Extrapolierung)
- **Primary irritant effect:**
- **on the skin:**  
Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.
- **Sensitization:**  
No sensitizing effect known.
- **Other information (about experimental toxicology):**  
Note: If the toxicity data relate to the mixture, the calculation is made in accordance with Annex VI, Part 3 of Regulation (EC) 1272/2008. If toxicity data are listed for individual substances they do not refer to the proportions in the mixture, but only on the materials in their standard concentrations.
- **Additional toxicological information:**  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**12 Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:**
  - 1310-58-3 Potassium Hydroxide**  
Gambusia affinis, LC50 (96h) : 80 mg/l  
fish, LC50 (24h) : 80 mg/l  
Poecilia reticulata, LC50 (24h) : 165 mg/l
  - 1310-73-2 Sodium Hydroxide**  
Daphnia magna, EC50 (48h) : >100 mg/l  
Leuciscus idus, LC50 (48h) : 133 mg/l
- **12.2 Information about elimination (persistence and degradability):**  
No further relevant information available.
- **Behaviour in environmental systems:**  
No further relevant information available.
- **12.4 Mobility in soil**  
No further relevant information available.
- **Ecotoxicological effects:**
- **Behaviour in sewage processing plants:**  
If appropriate diluted product reaches the sewage processing plant, there will be no disturbance of the biodegradable activities.
- **Additional ecological information:**
- **CSB-value:**  
Not determined.
- **BSB5-value:**  
Not determined
- **AOX-indication:**  
Product contains no organic bounded halogen
- **General notes:**

(continued on page 7)

**PRODUCT : ALKALINE BASE ALK***(continued of page 6)*

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/ 2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Before the waste is drained usually neutralization is necessary.

If product reaches untreated water systems, hazardous effects on fish and other water organism are possible.

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

- **PBT:**

Not applicable.

- **vPvB:**

Not applicable.

- **12.6 Other adverse effects**

No further relevant information available.

**13 Disposal considerations**

- **13.1 Product:**

- **Recommendation**

The allocation of the waste disposal key number is to be executed by the user according to the European waste disposal catalog (EAK) industry and product specific (origin-referred).

The waste keys are only referring to concentrated products.

- **European waste catalogue**

06

WASTES FROM INORGANIC CHEMICAL PROCESSES

06 02

wastes from the MFSU of bases

06 02 99

wastes not otherwise specified

- **Uncleaned packagings:**

- **Recommendation:**

Disposal must be made according to official regulations.

- **Recommended cleaning agent:**

Water, if necessary with cleaning agent.

**14 Transport information**

- **14.1 UN-Number**

**ADR**

UN3266

**IMDG**

UN3266

**IATA**

UN3266

- **14.2 UN proper shipping name**

**ADR**

3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE SOLUTION, SODIUM HYDROXIDE SOLUTION)

**IMDG**

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE SOLUTION, SODIUM HYDROXIDE SOLUTION)

**IATA**

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE SOLUTION, SODIUM HYDROXIDE SOLUTION)

- **14.3 Transport hazard class(es)**

**ADR**

**Class**

8 (C5) Corrosive substances.

**Label**

*(continued on page 8)*



1744300

Printing date: 02.11.2016

Reviewed on: 02.11.2016

**PRODUCT : ALKALINE BASE ALK**

(continued of page 7)

**IMDG****Class**

8 Corrosive substances.

**Label****IATA****Class**

8 Corrosive substances.

**Label**• **14.4 Packing group****ADR**

II

**IMDG**

II

**IATA**

II

• **14.5 Environmental hazards:****Marine pollutant:**

No

• **14.6 Special precautions for user**

Warning: Corrosive substances.

**Danger code (Kemler):**

80

**EMS Number:**

F-A,S-B

**Segregation groups**

Alkalis

• **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

• **Transport/Additional information:**

-

**Excepted quantities (EQ):**

E2

**Limited quantities (LQ)**

1L

**Transport category**

2

**Tunnel restriction code**

E

**IMDG****Limited quantities (LQ)**

1L

**Excepted quantities (EQ)**

E2

• **UN "Model Regulation":**

UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE SOLUTION, SODIUM HYDROXIDE SOLUTION), 8, II

**15 Regulatory information**• **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**• **National regulations**

Germany: Technical rules for dangerous materials (TRGS) in particular consider:

TRGS 500 Protection measures : minimum standards

TRGS 531 endangerment of the skin by work in the damp environment (damp work)

TRGS 201 Classification and marking from wastes to the removal while handling

Germany: Regard the principles of the professional organizations rules (BGR) in particular consider:

BGR 197: Use of skin protection

• **Classification after plant security regulation (BetrSichV):**

-

• **Technical instructions (air):**

No further details

(continued on page 9)



1744300

Printing date: 02.11.2016

Reviewed on: 02.11.2016

**PRODUCT : ALKALINE BASE ALK***(continued of page 8)*

- **Water hazard class:**  
In accordance with VwVwS appendix 4  
Water hazard class 1 (E) : slightly hazardous for water.Self-assessment
- **Other regulations, limitations and prohibitive regulations**
- **x**  
"Arbeitsmedizinische Vorsorge" (DGUV-V6)
- **15.2 Chemical safety assessment:**  
A Chemical Safety Assessment has not been carried out.

**16 Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H290            May be corrosive to metals.  
H302            Harmful if swallowed.  
H314            Causes severe skin burns and eye damage.
- **Training hints**  
Consider annual instruction and training of the coworkers  
Contents and time of the instruction are to be held in a written form and must be confirmed by the instructing people by signature. Consider storage time of the proof.
- **Recommended restriction of use**  
No public product - only for commercial applications.
- **Department issuing data specification sheet:**  
Laboratory department.
- **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)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
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
- **\* Data compared to the previous version altered.**  
\*