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SODA



SAFETY DATA SHEET  
Sodium Hydroxide Anhydrous \_(USA)  
According to 1907/2006/EC, Article 31

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

1.1. Product identifier

Product name	Sodium Hydroxide Anhydrous _(USA)
REACH registration number	01-2119457892-27-0055
CAS number	1310-73-2
EU index number	011-002-00-6
EC number	215-185-5

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

Identified uses	<p>Production of solid sodium hydroxide including the production of aqueous sodium hydroxide solution.</p> <p>Industrial and professional use of sodium hydroxide: In the pulp and paper industry, production of crop protection, organic pigments, epoxy resins, textile industry, rubber industry, food industry, metal industry, aluminum industry. As a reactant for the manufacturing of chemicals or for neutralization (steel industry, electroplating industry, (waste water), rubber industry, cleaning and water treatment (food industry) or extraction (aluminum industry)</p> <p>Consumers: Use of sodium hydroxide: Neutralisation, cleaning products, cosmetics, personal care products, batteries.</p>
Sector of Use	<p>SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites</p> <p>SU8 Manufacture of bulk, large scale chemicals (including petroleum products)</p>
Process category	<p>PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities.</p> <p>PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities</p> <p>PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)</p> <p>PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.</p> <p>PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions</p> <p>PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4 Chemical production where opportunity for exposure arises</p>
Application of the substance / the mixture	Chemicals for synthesis Chemical production,

1.3. Details of the supplier of the safety data sheet

## Sodium Hydroxide Anhydrous \_(USA)

Manufacturer ARABIAN ALKALI COMPANY (SODA)  
 P.O.Box-121010, Jubail Industrial City - 31961  
 Kingdom of Saudi Arabia  
 Tel +966 13 3583400  
 Fax + 966 13 3585536  
 safety@nama.com.sa

Only Representative REACH NAMA Germany  
 1907/2006/EC Article 8 Teichstrasse 38  
 D-79539 Lörrach  
 Tel. + 49 762 1940 5410  
 Fax. + 49 762 1940 5420

### 1.4. Emergency telephone number

Emergency telephone Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Met. Corr. 1 - H290  
 Health hazards Skin Corr. 1A - H314  
 Environmental hazards Not Classified

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation.

EC number 215-185-5

Pictogram



Signal word Danger

Hazard-determining components of labelling Sodium hydroxide

Hazard statements H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.

Precautionary statements P260 Do not breathe dust.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ 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.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

## Sodium Hydroxide Anhydrous \_(USA)

### NFPA Ratings (scale 0 - 4)



### HMIS-Ratings (scale 0 - 4)



### 2.3. Other hazards

Results of PBT and vPvB assessment: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Product name	Sodium Hydroxide Anhydrous _(USA)
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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General information	Promptly remove any clothing that becomes wet or contaminated.
Inhalation	IF INHALED: Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately.
Ingestion	IF SWALLOWED: Remove person to fresh air and keep comfortable for breathing. Give plenty of water to drink. Get medical attention immediately.
Skin contact	IF ON SKIN: Wash promptly with soap and water if skin becomes contaminated.
Eye contact	IF IN EYES: Get medical attention immediately. Remove any contact lenses and open eyelids wide apart. Rinse cautiously with water for several minutes.

### 4.2. Most important symptoms and effects, both acute and delayed

### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor: No information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: Use fire-extinguishing media suitable for the surrounding fire. The product is not combustible but in a fire may release oxygen, which can increase the burning rate of flammable materials. In case of fire and/or explosion do not breathe fumes.

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

Specific hazards: No information available.

### 5.3. Advice for firefighters

## Sodium Hydroxide Anhydrous \_(USA)

Special protective equipment for firefighters      Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### SECTION 6: Accidental release measures

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

Personal precautions      Avoid handling which leads to dust formation. Use protective equipment appropriate for surrounding materials. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

For non-emergency personnel      Keep unnecessary and unprotected personnel away from the spillage.

#### 6.2. Environmental precautions

Environmental precautions      Avoid the spillage or runoff entering drains, sewers or watercourses.

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

Methods for cleaning up      Clean contaminated objects and areas thoroughly, observing environmental regulations. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Provide adequate ventilation.

#### 6.4. Reference to other sections

Reference to other sections      Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Usage precautions      Thorough dedusting.

Information about fire - and explosion protection      No special treatment required.

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

Requirements to be met by storerooms and receptacles      Unsuitable container materials: Aluminium.

Storage precautions      Keep contents moist. Avoid contact with acids and alkalis. Keep container tightly closed and dry.

Storage class      8 B (TRGS 510) Non flammable, corrosive substances.

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

Specific end use(s)      No information available.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

MAK (Germany)/MAK (EU)      vgl. Abschn.IV

DNEL      Workers - Inhalation; Long term : 1 mg/m<sup>3</sup>

Additional information:      MAK (EU): Long-term value: 200 mg/m<sup>3</sup>, 300 ppm  
MAK (Switzerland): Short-term value: 2 e mg/m<sup>3</sup>; Long-term value: 2 e mg/m<sup>3</sup>; SSc The lists valid during the making were used as basis.

#### 8.2. Exposure controls

## Sodium Hydroxide Anhydrous \_(USA)

### Protective equipment



#### Personal protection

Keep away from food, drink and animal feeding stuffs. Promptly remove any clothing that becomes contaminated. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Avoid contact with skin and eyes.

#### Eye/face protection

Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated.

#### Hand protection

Wear protective gloves. It is recommended that chemical-resistant, impervious gloves are worn. It is recommended that gloves are made of the following material: Nitrile rubber. Chloroprene rubber. Butyl rubber. Thickness:  $\geq 0.5$  mm Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. The selected gloves should have a breakthrough time of at least 8 hours. To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Respiratory protection

Respiratory protection may be required if excessive airborne contamination occurs. Vapours/aerosol spray may irritate the respiratory system.

### SECTION 9: Physical and Chemical Properties

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

Appearance	Solid.
Colour	White.
Odour	Odourless.
pH	Not applicable.
Melting point	319°C
Initial boiling point and range	1,390°C (DIN 51751)
Flash point	Not applicable.
Flammability (solid, gas)	The product is not flammable.
Vapour pressure	3.5 hPa @ 800°C
Density	2.13 g/cm <sup>3</sup>
Solubility(ies)	Soluble in water. 420 g/l @ 20°C
Partition coefficient	Not determined.
Viscosity	Not applicable.
Explosive properties	Not considered to be explosive.
Organic solvents	0.0%
VOC (EC)	0.00%
Solid content	100.0%

#### 9.2. Other information

Other information	No information available.
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### SECTION 10: Stability and reactivity

## Sodium Hydroxide Anhydrous \_(USA)

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Thermal decomposition / conditions to be avoided Does not decompose when used and stored as recommended.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

### 10.4. Conditions to avoid

Conditions to avoid Product is hygroscopic. Avoid contact with moisture.

### 10.5. Incompatible materials

Materials to avoid Metal or metallic solid. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Acids. Organic cyanides (nitriles). Alkaline earth metals. Powdered metal. 2. Ammonium compounds Cyanides. Magnesium. Organic nitro compounds. Take any precaution to avoid mixing with combustibles, alkalis and organic materials. Phenols, cresols.

### 10.6. Hazardous decomposition products

Hazardous decomposition products None.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

#### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 2,000.0

Species Rat

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

Serious eye damage/irritation Causes severe skin burns and eye damage. Causes serious eye damage.

#### Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

#### Carcinogenicity

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

#### Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

## Sodium Hydroxide Anhydrous \_(USA)

### Specific target organ toxicity - repeated exposure

STOT - repeated exposure      Based on available data the classification criteria are not met.

### Aspiration hazard

Aspiration hazard                Based on available data the classification criteria are not met.

## SECTION 12: Ecological Information

**General Notes**                      Control run-off water by containing and keeping it out of sewers and watercourses. Avoid discharge into drains and the aquatic environment. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

### 12.1. Toxicity

**Acute toxicity - fish**                EC<sub>50</sub> , 24 hours: 76 mg/l, Daphnia magna  
 LC<sub>50</sub> , 48 hours: 99 mg/l, Lepomis macrochirus (Bluegill)  
 , : 45.4 mg/l, Onchorhynchus mykiss (Rainbow trout)

### 12.2. Persistence and degradability

**Persistence and degradability**    No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential**        No information available.

**Partition coefficient**                Not determined.

### 12.4. Mobility in soil

**Mobility**                                No information available.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment**    Not applicable.

### 12.6. Other adverse effects

**Other adverse effects**                No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods**                      Dispose of waste via a licensed waste disposal contractor. Dispose of this material and its container to hazardous or special waste collection point. Avoid the spillage or runoff entering drains, sewers or watercourses.

**European waste catalogue:**      06 02 04\* : sodium and potassium hydroxide

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)**                      UN 1823

**UN No. (IMDG)**                         UN 1823

**UN No. (ICAO)**                         UN 1823

### 14.2. UN proper shipping name

## Sodium Hydroxide Anhydrous \_(USA)

Proper shipping name (ADR/RID) UN1823 SODIUM HYDROXIDE, SOLID

Proper shipping name (IMDG) SODIUM HYDROXIDE, SOLID

Proper shipping name (ICAO) SODIUM HYDROXIDE, SOLID

### 14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C6

ADR/RID label 8

IMDG class 8

ICAO class/division 8

Transport labels



### 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

Warning Corrosive

Danger code(Kemler): 80

EmS F-A, S-B

Stowage Category A

ADR transport category 2

Emergency Action Code 2W

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

Segregation Code: SG35 Stow "separated from" acids.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

ADR and IMDG:

ADR and IMDG:

Excepted quantities (EQ): Code: E2



## Sodium Hydroxide Anhydrous \_(USA)

Limited quantities (LQ)	1 Kg
Maximum net quantity per inner packaging:	30 g
Maximum net quantity per outer packaging:	500 g
Transport Category:	2
Tunnel Restriction Code:	E
ADR and IMDG Remarks:	Lösungen: 8.42b, KZ 80, UN 1824, Gz 8
UN "Model Regulation":	UN 1823 SODIUM HYDROXIDE, SOLID, 8, II

### SECTION 15: Regulatory information

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

##### US Federal Regulations

Regulatory Exposure Limit(s): Listed below for the product components that have regulatory occupational exposure limits (OEL's).

Sodium Hydroxide 1310-73-2: OSHA Final PEL TWA: 2 mg/m<sup>3</sup>.

OSHA Final PEL STEL: ----- OSHA Final PEL Ceiling: -----

OEL: Occupational Exposure Limit;

OSHA: United States Occupational Safety and Health Administration;

PEL: Permissible Exposure Limit;

TWA: Time Weighted Average;

STEL: Short Term Exposure Limit

##### NON-REGULATORY EXPOSURE LIMIT(S):

Listed below for the product components that have non-regulatory occupational exposure limits (OEL's). –

The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993). –

The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States.

The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

Sodium Hydroxide 1310-73-2. ACGIH TWA: -----

ACGIH STEL: -----

ACGIH Ceiling: 2 mg/m<sup>3</sup>

OSHA TWA: -----

OSHA STEL: -----

OSHA Ceiling: 2 mg/m<sup>3</sup>

ENGINEERING CONTROLS: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

## Sodium Hydroxide Anhydrous \_(USA

### SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.  
ICAO: International Civil Aviation Organisation  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
IMDG: International Maritime Dangerous Goods.  
IATA: International Air Transport Association.  
GHS: Globally Harmonized System.  
EINECS: European Inventory of Existing Commercial and Chemical Substances  
CAS: Chemical Abstracts Service.  
VOC: Volatile Organic Compounds (USA,EU)  
DNEL: Derived No Effect Level.  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic substance.  
vPvB: Very Persistent and Very Bioaccumulative.  
Met. Corr. 1: Corrosive to metals, Hazard Category 1  
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
WGK: German Water Hazard Class.

Revision date 01/11/2018

Revision 01

Supersedes date 10/06/2018

SDS number 4610

Hazard statements in full  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

Disclaimer  
This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.