



SAFETY DATA SHEET

Sodium Hydroxide Solution 50%

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

1.1. Product identifier

Product name	Sodium Hydroxide Solution 50%
Chemical name	(NaOH) Sodium Hydroxide Solution (10 – 60%)
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 soda hydroxides 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 pesticides, organic pigments, epoxy resins, textile industry, rubber industry, food industry, metal industry, aluminum industry. As a reactant for the Herstellung of Chemkalien, or to neutralize (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:</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>
Environmental release category	No relevant release
Application of the substance / the mixture	Chemical production, Chemicals for synthesis

1.3. Details of the supplier of the safety data sheet

Sodium Hydroxide Solution 50%

Manufacturer Jubail Chemical Industries Company (JANA)
P.O.BOX - 11919
Jubail Industrial City - 31961
Saudi Arabia
Tel. +966 13 3478888 ext 351
Fax. +966 13 3476705
safety@nama.com.sa

**Only Representative REACH
1907/2006/EC Article 8**

1.4. Emergency telephone number

Emergency telephone Tox Info Suisse
Freiestrasse 16 CH-8032 Zurich
Emergency phone number (from outside Switzerland): 00 41 44 251 51 51 (24 h)

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 Eye Dam. 1 - H318
Environmental hazards Not Classified

2.2. Label elements

EC number 215-185-5

Pictogram



Signal word Danger

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

Precautionary statements P260 Do not breathe vapour/ spray.
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.

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 Solution 50%
Chemical name (NaOH) Sodium Hydroxide Solution (10 – 60%)

Sodium Hydroxide Solution 50%

EU index number	011-002-00-6
CAS number	1310-73-2
EC number	215-185-5

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
Inhalation	IF INHALED: Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	IF SWALLOWED: Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Move affected person to fresh air at once. Get medical attention immediately.
Skin contact	IF ON SKIN: Wash skin thoroughly with soap and water or use an approved skin cleanser.
Eye contact	IF IN EYES: Get medical attention immediately. Rinse cautiously with water for several minutes. Remove any contact lenses and open eyelids wide apart.

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

General information	No information available.
----------------------------	---------------------------

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. Not-combustable. Ambient fire may liberate hazardous vapours.
-------------------------------------	---

5.2. Special hazards arising from the substance or mixture

Specific hazards	No information available.
-------------------------	---------------------------

5.3. Advice for firefighters

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 generation and spreading of dust. Wear protective clothing, gloves, eye and face protection. 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	Avoid contact with oxidising agents. For waste disposal, see Section 13. Provide adequate ventilation.
--------------------------------	--

6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.
------------------------------------	---

Sodium Hydroxide Solution 50%

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Absorb spillage to prevent material damage.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Unsuitable container materials: Aluminium. Do not mix with acid. Store at temperatures above 5 to +30°C. Keep container tightly closed and dry.

7.3. Specific end use(s)

Specific end use(s) No information available.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Personal protection

Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Avoid inhalation of vapours/spray and contact with skin and eyes. Use appropriate skin cream to prevent drying of skin.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Wear protective gloves. Thickness: ≥ 0.5 mm For users with sensitive skin, it is recommended that suitable protective gloves are worn. It is recommended that gloves are made of the following material: Rubber (natural, latex). Chloroprene rubber. Nitrile rubber. Viton rubber (fluoro rubber). Butyl rubber. Polyvinyl chloride (PVC). 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.

Other skin and body protection

Wear protective clothing.

Hygiene measures

Keep away from food, drink and animal feeding stuffs. Wash hands thoroughly after handling. Avoid contact with skin, eyes and clothing. Use appropriate skin cream to prevent drying of skin.

Respiratory protection

In case of possible exposure to degradation products, use suitable respiratory protection.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Odourless.
Odour threshold	No other information known.
pH	14 (10% 30% 50% solutions)
Melting point	12°C/53.6°F
Initial boiling point and range	140°C/284°F

Sodium Hydroxide Solution 50%

Flash point	Not applicable.
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	13 mm Hg @ 60°C/140°F
Density	1,53 g/cm ³ (50% solution)
Solubility(ies)	Not applicable.
Viscosity	Not applicable.
Solid content	10 - 60%

9.2. Other information

Other information No other information known.

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid No information available.

10.5. Incompatible materials

Materials to avoid In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Avoid contact with the following materials: Acids. Organic cyanides (nitriles). Alkaline earth metals. Cyanides. Magnesium. Organic nitro compounds. phenols and halogenated phenols 2. Ammonium compounds

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other health effects This product is corrosive. Swallowing concentrated chemical may cause severe internal injury. May cause burns in mucous membranes, throat, oesophagus and stomach.

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 2000 mg/kg, Oral, Rat

Skin corrosion/irritation

Skin corrosion/irritation Severe skin irritation., The product irritates mucous membranes and may cause abdominal discomfort if swallowed.

Serious eye damage/irritation

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

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Sodium Hydroxide Solution 50%

Skin sensitisation

Skin sensitisation Not sensitising.

Carcinogenicity

IARC carcinogenicity Not listed.

NTP carcinogenicity Not listed.

SECTION 12: Ecological Information

General Notes Avoid discharge into drains and the aquatic environment. Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

12.1. Toxicity

Acute toxicity - fish LC₅₀, 48 hours: 99 mg/l, *Lepomis macrochirus* (Bluegill)
45.4 mg/l (*Oncorhynchus mykiss*)

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: 76 mg/l, *Daphnia magna*

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential No information available.

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not release into the environment.

SECTION 14: Transport information

14.1. UN number

UN1824

UN No. (ADR/RID) UN1824

UN No. (IMDG) UN1824

UN No. (ICAO) UN1824

14.2. UN proper shipping name

Sodium Hydroxide Solution 50%

Proper shipping name (ADR/RID) UN1824 Sodium hydroxide, solution

Proper shipping name (IMDG) SODIUM HYDROXIDE, SOLUTION

Proper shipping name (ICAO) SODIUM HYDROXIDE, SOLUTION

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C5

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 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

IMDG Code segregation group Alkalis.

EmS F-A, S-B

ADR transport category 2

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

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

ADR and IMDG:

Excepted quantities (EQ): Code: E2

Limited quantities (LQ) 1 kg (as 100%)

Maximum net quantity per inner packaging: 30 g(as 100%)

Maximum net quantity per outer packaging: 500 g(as 100%)

Sodium Hydroxide Solution 50%

ADR and IMDG Remarks: Lösungen: 8,42b, KZ 80, UN 1824, Gz 8

UN "Model Regulation": UN1824, Sodium hydroxide, solution, 8, II

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

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-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 IMDG: International Maritime Dangerous Goods.
 DOT: US Department of Transportation
 IATA: International Air Transport Association.
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial and Chemical Substances
 CAS: Chemical Abstracts Service.
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 Met. Corr. 1: Corrosive to metals, Hazard Category 1
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Revision date 28/06/2018

Revision 00

SDS number 4584

Hazard statements in full

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious 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.