	<b>SAFETY DATA SHEET (SDS)</b>	
	<b>CAUSTIC SODA LIQUID 30 - 50%</b>	
	Document #: <b>SCIL-SDS-01</b>	Issue Date: <b>01-Jan-2023</b>
	Revision: 1	1 <sup>st</sup> Rev: <b>02-Jan-2025</b> Next Rev: <b>01-Jan-2027</b>

## SAFETY DATA SHEET

### 1. IDENTIFICATION

- 1.1 Product identifier:** Sodium Hydroxide, 30-50% Solution  
**Synonym(s):** Caustic soda solution, Lye solution, Sodium hydroxide liquid, Sodium hydrate solution  
**Recommended use:** For Laboratory, Research or Manufacturing Use.  
**Restrictions on use:** Not determined.  
**Reach No.** This product is a mixture. A registration number is not available for this substance as the substance or its uses are exempted from registration
- 1.2 Details of the supplier of the Safety data sheet Manufacturer**  
**Company Name** Sitara Chemical Industries Ltd.  
**Address:** 32-K.M, Sheikhpura Road, Faisalabad  
**Telephone Number:** (+92)041-4689141-5  
**Emergency Number** (+92)041-4689141-5 (Ext.1161)  
**Website** <http://www.sitara.com.pk>

### 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or Mixture.**  
**Classification according to Regulation (EC) No 1272/2008**  
Corrosive to metals Category 1  
Skin corrosion Sub-category 1A  
Serious eye damage Category 1  
For the full text of the H-Statements mentioned in this Section, see Section 16.
- 2.2 Label Elements**  
**Labeling according Regulation (EC) No 1272/2008**



**Signal Word:** Danger


**Hazard Statement(s):**

May be corrosive to metals  
Causes severe skin burns and eye damage.

**Precautionary Statements**

Keep only in original packaging  
Do not breathe dusts or mists  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**IF ON SKIN / hair:**  
Take off immediately all contaminated clothing. Rinse skin with water.  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.



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

The most important known symptoms and effects are described in the labeling (see section (2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed:** No data available

## 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media**

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Sodium oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection see section 8.

**6.2 Environmental precautions.** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (See sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**6.4 Reference to other sections:** For disposal see section 13.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling**


**Advice on safe handling:** Observe label precautions.

**Hygiene measures:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage conditions**

No aluminium, tin, or zinc containers.

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Tightly closed. No metal containers.

**Storage class**

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

Ingredients with workplace control parameters derived

No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Workers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
Consumers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>

**8.2 Exposure controls**

**Personal protective equipment**

**Eye/face protection:**

Tightly fitting safety goggles

**Skin protection**

Chemical resistant gloves

**Body Protection:**

protective clothing

**Respiratory protection:**

Required when dusts are generated.

**Other:**

Wear suitable protective clothing.

**Control of environmental exposure:** Do not let product enter drains.

**9. PHYSICAL & CHEMICAL PROPERTIES**

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

**Appearance**

Physical state:

Form: Liquid

Color: Colorless

**Odor:** Odorless

**Odor threshold:** Not applicable

**pH:** ca.14 at 20 °C

**Melting point/freezing point:** No data available

**Initial boiling point and boiling range:** No data available


**Flash Point:** Not applicable

**Evaporation rate:** No data available.

**Flammability (solid, gas):** The product is not flammable.

**Upper/lower limit on flammability or explosive limits**

**Vapor pressure:** No data available

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<b>Vapor density:</b>	No data available
<b>Density:</b>	1.33g/ cm <sup>3</sup> - 1.52g/ cm <sup>3</sup> at 20 °C
<b>Relative density:</b>	No data available
<b>Solubility in water:</b>	Soluble at 20 °C
<b>Partition coefficient (n-octanol/water):</b>	Not applicable for inorganic substances
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	none
<b>9.2 Other safety information:</b>	No data available

## 10. Chemical Stability & Reactivity Information

- 10.1 Reactivity:** No data available
- 10.2 Chemical Stability:** No data available
- 10.3 Possibility of hazardous reactions:**  
Risk of ignition or formation of inflammable gases or vapors with:  
Light metals, possible formation of Hydrogen,  
Violent reactions possible with:  
Ammonium compounds, Cyanides, organic nitro compounds, organic combustible substances phenols, powdered alkaline earth metals, Acids, Nitriles, Magnesium
- 10.4 Conditions to avoid:** Avoid contact with oxidizing agents. It reacts violently with strong acids.
- 10.5 Incompatible Materials:**  
Aluminum, various plastics, Brass, Metals, metal alloys, Zinc, Tin, Light metals, glass, quartzes/silicate ceramics, animal/vegetable tissues Acids, Aluminum, brass, Metals, metal alloys, Zinc, Tin.
- 10.6 Hazardous Decomposition Products:** In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects**
- Mixture**
- Acute toxicity:**  
Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. mucosal irritations, Cough, Shortness of breath, Possible damage of respiratory tract
- Skin corrosion/irritation:** Necrosis Mixture causes severe burns.
- Serious eye damage/eye irritation:** Mixture causes serious eye damage. Risk of blindness! Necrosis
- Respiratory or skin sensitization:** No data available
- Germ cell mutagenicity:** No data available
- Carcinogenicity:** No data available
- Reproductive toxicity:** No data available
- Specific target organ toxicity - single exposure:** No data available
- Specific target organ toxicity - repeated exposure:** No data available
- Aspiration hazard:** No data available

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## 11.2 Additional Information

### Endocrine disrupting properties

#### Product:

#### Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Irritation and corrosion, Risk of blindness! Cough, Shortness of breath, Cough, collapse, death. Other dangerous properties cannot be excluded.

#### Components

##### Sodium hydroxide

**Acute toxicity:** Oral: No data available

**Symptoms:** If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

**Symptoms:** burns of mucous membranes, Cough, Shortness of breath, Possible, damages:, damage of respiratory tract

**Dermal** No data available

##### Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns.

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

##### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye damage.

(OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Causes serious eye damage.

##### Respiratory or skin sensitization

Patch test: - In vitro study

Result: negative

Remarks: (ECHA)

**Germ cell mutagenicity:** No data available

##### Carcinogenicity:

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** No data available

##### Specific target organ toxicity - single exposure:

Acute oral toxicity - If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.


Acute inhalation toxicity - burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

Handle in accordance with good industrial hygiene and safety practice.

## 12. ECOLOGICAL INFORMATION

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### 12.1 Toxicity

**Mixture:** No data available

### 12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.  
No data available

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

Harmful effect due to pH shift. Death of fish possible. Does not cause biological oxygen deficit.

Neutralisation possible in waste water treatment plants.

Discharge into the environment must be avoided.

No data available

#### Components

##### sodium hydroxide

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Ceriodaphnia (water flea) - 40,4 mg/l - 48 h. Remarks: (ECHA)

Toxicity to bacteria: EC50 - Photobacterium phosphoreum - 22 mg/l - 15 min Remarks: (External MSDS)

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: 1823

IMDG: 1823

IATA: 1823

### 14.2 UN proper shipping name

ADR/RID: Sodium Hydroxide Solution

IMDG: Sodium Hydroxide Solution

IATA: Sodium Hydroxide Solution


### 14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

### 14.4 Packaging group

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- ADR/RID: II                      IMDG: II                                      IATA: II
- 14.5 Environmental hazards**
- ADR/RID: no                      IMDG Marine pollutant: no                      IATA: no
- 14.6 Special precautions for user:**                      No data available

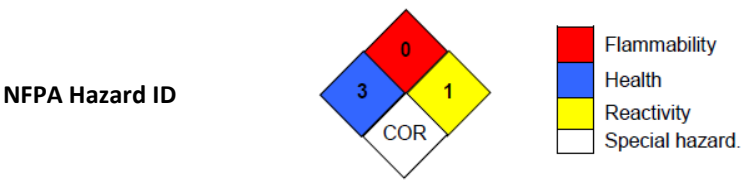
**15. REGULATORY INFORMATION**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
- 15.2 Chemical Safety Assessment:** A Chemical Safety Assessment has been carried out for this substance.

**16. LABELING INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3.**

- May be corrosive to metals                      H290
- Causes severe skin burns and eye damage                      H314
- Causes skin irritation                      H315
- Causes serious eye damage                      H318
- Causes serious eye irritation                      H319



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible COR: Corrosive

**Disclaimer:**  
All information given in this data sheet by the company's technical staff is compiled based on data available at this time. The company accepts no responsibility whatsoever for its accuracy or for any results which may be obtained by customers. Any customer who relies upon any advice or information given in this data sheet by the company or by its technical staff does so entirely at its own risk and the company will not be liable for any loss or damage thereby suffered notwithstanding any want of care on the part of the company or its staff in compiling or giving the advice or information.