

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, amended by 2015/830/EU

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the product

Product Description	Sodium Hydroxide
Synonym	Caustic Soda
Pure Substance/preparation	Substance
CAS Number	1310-73-2
EC Number	215-185-5

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses	Laboratory chemical, Manufacture of substances
Uses advised against	No uses advised against has been identified

1.3 Details of the Supplier of the Safety Data Sheet

Gujrat Fluorochemicals Ltd.

12/A Dahej Industrial Estate, Taluka Vagra,
Distt. Bharuch-392130, Gujrat, India

Website	www.gfl.co.in
Telephone	+91-2641-618031(Admin)/618041-50(Purchase)/618086-87(Security)
Fax	+91-2641-618012
E-mail address	contact@gfl.co.in

1.4 Emergency Telephone Number

Emergency telephone number	+91-2641-618086-87 (Security)
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2. Hazard Identification

2.1 Classification of the substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification acc. to GHS

Corrosive To Metals
Skin Corrosive/Irritation
Eye Damage/Irritation

Category 1 - (H290)
Category 1 - (H314)
Category 1 - (H318)

2.2 Label elements

Pictogram



Signal Word

Danger

Hazard Statements

H290 May be corrosive to metals

H314 Causes severe skin burns and eye damage

Precautionary Statements

Prevention

P260 Do not breathe dusts or mists.

P264 Wash hands, skin and face thoroughly after handling.

P234 Keep only in original container

P290 Absorb spillage to prevent material-damage

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

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 [or shower]

P363 Wash contaminated clothing before reuse.

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 so. Continue rinsing.

P310 Immediately call a POISON CENTRE/doctor or physician.

Storage

P406 Store in a corrosive resistant container with a resistant inner liner.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards

The substance does not meet the criteria for a PBT or vPvB substance

3. Composition/information on Ingredients

3.1. Substance

Chemical name	CAS-No	EC No	Weight %	EU - GHS Substance Classification (REGULATION (EC) No 1272/2008)	REACH No.
Sodium Hydroxide	1310-73-2	215-185-5	<=100	Corrosive to metal; Skin corr/Irrit ; Eye dam/Irrit; H290, H314, H318	No data available

For the full text of the H-Statements mentioned in this Section, see Section 16

4. First aid measures

4.1 Description of first-aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
Eye contact	IF IN EYES: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine). Call a physician or poison control center immediately. Get immediate medical attention.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. Seek immediate medical attention/advice.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Artificial respiration and/or oxygen may be necessary.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Seek immediate medical attention.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

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

Indication of immediate medical attention and special treatment needed

Treat symptomatically and supportively.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing agents appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Water may be ineffective.

5.2 Special hazards arising from the substance or mixture

Special Hazard	Non-combustible. Reacts violently with water. Gives off hydrogen by reactions with metals. Thermal decomposition can lead to release of irritating gases and vapours.
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Hazardous Combustion Products Hazardous decomposition products formed under fire conditions:
Sodium oxides, Hydrogen

5.3 Advice for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Prevent further leakage or spillage if safe to do so. Keep away from Incompatible products. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ventilate the area. Wear suitable protective clothing. Wear respiratory protection. For personal protection see section 8.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Keep in properly labelled containers. Keep in suitable, closed containers for disposal. Treat recovered material as described in the section "Disposable considerations".

6.4 Reference to other sections

Hazardous combustion products: see section 10. Personal Protective equipment: See section 8. Incompatible materials: see section 8. Incompatible Material: see section 10. Disposal Consideration: see section 13

7. Handling and Storage

7.1 Precautions for Safe Handling

7.1.1 Handling

Used in closed system. When diluting, always add the product to water. Never add water to the product. Use only equipment and materials which are compatible with the product. Keep away from Incompatible products. To avoid thermal decomposition, do not overheat. Preferably transfer by pump or gravity.

7.1.2 Hygiene measures

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container. Keep in a well-ventilated place. Keep in a dry place. Keep in properly labelled containers. Keep container closed. Avoid dust formation. Keep away from incompatible products.

7.3 Specific end uses

Laboratory chemical, Manufacture of substances.

8. Exposure Controls/ Personal Protection

8.1 Control Parameters

Exposure Limits Apply technical measures to comply with the occupational exposure

Component	ACGIH TLV	OSHA PEL
Sodium Hydroxide (CAS: 1310-73-2)	TWA 2 mg/m ³	TWA 2 mg/m ³

Derived No Effect level (DNEL) No information available

Predicted No Effect Concentration No information available

8.2 Exposure Controls

Appropriate Engineering Control Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to work station. If applicable, use process enclosure, local exhaust ventilation, or other engineering controls to maintain airborne level below recommended exposure limits. If exposure limits have not been established maintain airborne levels to acceptable level.

Personal protective equipment

Eye protection Use tightly sealed safety glasses. Chemical resistant goggles must be worn.

Skin protection Impervious long-sleeved clothing. Preventative skin protection is recommended.

Hand protection Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance Solid
Physical state Colorless
Odor Odorless
Odor threshold No information available

Property VALUES Remarks/ Method

pH	14 (water: 100 g/l, 20 °C)
Melting point/freezing point	323 °C
Boiling Point/Range	1388°C at 101 325 Pa
Flash Point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability or explosive limits	
Upper	No information available
Lower	No information available
Density	2.13 g/cm ³
Vapor Density	No information available
Vapor pressure (air = 1)	No information available
Water solubility	Soluble in water
Solubility in Other Solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity Kinematics	Not Applicable
Viscosity Dynamics	Not Applicable
Oxidizing properties,	No information available
Explosive properties	No information available
Molecular Formula	NaOH
Molecular Weight	39.997 g/mol

9.2 OTHER INFORMATION

VOC Content	No information available
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10. Stability and Reactivity

10.1 Reactivity

Potential for exothermic hazard. May be corrosive to metals.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reaction

Gives off hydrogen by reaction with metals. Exothermic reaction with strong acids. Violent reaction with: Acetone, Chloroform, Maleic anhydride, Acids, Phosphorus, Nitrile, Peroxides, Bromine, Nitro compound, Nitrate, Magnesium, Calcium, Metal powder. Risk of explosion. Reacts violently with water.

10.4 Conditions to avoid

Keep away from direct sunlight. To avoid thermal decomposition, do not overheat. Exposure to moisture. Freezing

10.5 Incompatible Materials

Metals, Oxidizing agents, Water, Acids, Aluminium, Different metals - aluminium - zinc - tin - Brass

10.6 Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty containers away from heat and sources of ignition.

Hazardous decomposition products formed under fire conditions: Sodium oxides, Hydrogen

11. Toxicological Information

11.1 Information on Toxicological Effects

Acute toxicity

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide CAS: 1310-73-2	-	-	-

Source: ECHA

Local effect

Inhalation	Based on available information, the classification criteria are not met.
Eye contact	Causes serious eye damage
Skin contact	Causes severe skin burns
Ingestion	Based on available information, the classification criteria are not met.

Chronic toxicity

Skin Corrosion/Irritation	Causes severe skin burns
Eye damage/irritation	Causes serious eye damage
Sensitization	Based on available information, the classification criteria are not met.
Mutagenic effects	Based on available information, the classification criteria are not met.
Carcinogenic effects	Based on available information, the classification criteria are not met.
Reproductive effects	Based on available information, the classification criteria are not met.
STOT - Single Exposure	Based on available information, the classification criteria are not met.
STOT - repeated exposure	Based on available information, the classification criteria are not met.
Aspiration hazard	Based on available information, the classification criteria are not met.

12. Ecological Information

12.1 Ecotoxicity

Chemical Name	Toxicity to Fish	Toxicity to Daphnia and other aquatic invertebrate	Toxicity to Algae
Sodium Hydroxide CAS: 1310-73-2	LC50(96hr) = 35 to 189 mg/L	-	-

Source: ECHA

12.2 Persistence and Degradability

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.

Sodium hydroxide is an inorganic substance. According to Annex XIII of the REACH Regulation the PBT and vPvB assessment only applies to organic substances, including organo-metals. Therefore, the PBT and vPvB assessment does not apply to sodium hydroxide.

12.6 Other Adverse Effects

No other adverse effects identified.

13. Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues / Unused Products

Disposal should be in accordance with applicable local/regional/national and international laws and regulations.

Contaminated packaging

Do not reuse empty containers. Dispose of this container to hazardous or special waste collection point.

14. Transport Information

IMDG/IMO

UN-No	UN 1823
Proper Shipping name	Sodium hydroxide, solid
Hazard class	8
Packing group	II
Marine pollutant	No

IATA/ICAO

UN-No	UN 1823
Proper Shipping name	Sodium hydroxide, solid
Hazard class	8
Packing group	II

15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

International Inventories

TSCA	Complies
EINECS/ ELINCS	Complies
DSL/NDL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

16. Other Information

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

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

Preparation Date	23-July-2021
Revision Date	23-July-2021
Revision Note	Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

End of Safety Data Sheet