

HEALTH AND SAFETY DATA SHEET

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1. **PRODUCT:** Solid Caustic Soda
Chemical name: Sodium Hydroxide
1.1 **REACH registration number:** 01-2119457892-27
1.2 **USE:** Heavy Duty Cleaner
1.3 **EMERGENCY TELEPHONE NUMBER:** 0402 32370

2. **HAZARD IDENTIFICATION**
2.1 **GHS Classification**

- 2.1.1 Classified as hazardous according to the European regulation (EC) 1272/2008, as amended

Hazard Class	Hazard Category	Route of exposure	H Phrases
Skin corrosion	Category 1A		H314
Corrosive to metals	Category 1		H290

- 2.1.2 Classified as hazardous according to the European Directive 67/548/EEC or 1999/45/EC, as amended

Hazard Class/Hazard Category	R-Phrase(s)
C	R35

2.2 **EC Label- According to Regulation (EC) 1272/2008, as amended**

- 2.2.1 Names on label
Hazardous Components Sodium Hydroxide

- 2.2.2 Signal Word
Danger

- 2.2.3 Hazard Symbols



2.2.4 Hazard Statements

- H314 - Causes severe skin burns and eye damage
H290 - may be corrosive to metals

2.2.5 Precautionary statements

Prevention:	P260	- Do not breathe dust/fume/gas/mist/vapours/spray.
	P280	- wear protective gloves/protective clothing/eye protection/face protection
Response	P303+P361+P353	- IF ON SKIN(or hair): Remove/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 CENTRE or doctor/physician.

3. COMPOSITION/INFORMATION ON INGREDIENTS
Concentration

Name	Conc.Range	CAS No.	EC No.
Sodium Hydroxide	>= 99%	1310-73-2	215-185-5

4. FIRST AID MEASURES**4.1** **Speed is essential. Always obtain immediate medical attention.**

Inhalation: Remove patient from exposure, keep warm and at rest. Administer Oxygen if necessary.

Ingestion: Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300ml (half a pint) of water to drink.

Skin Contact: Remove contaminated clothing. Drench with large quantities of water. Continue to wash the affected area for at least 20 minutes.

Eye Contact: Immediately irrigate with eyewash solution or fresh water, holding the eyelids apart, for at least 20 minutes. Continue irrigation until medical attention can be obtained.

4.2 **Most Important symptoms/effects**

- Inhalation:**
- Corrosive to respiratory system
 - Symptoms: Breathing difficulties. Cough, exchemical pneumonitis, pulmonary oedema
 - Repeated or prolonged exposure: Risk of sore throat, nose bleeds, chronic bronchitis
- Skin contact:**
- Causes severe burns.
 - Symptoms: Redness, swelling of tissue, burn.
- Eye contact:**
- Causes severe burns.
 - Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
 - May cause permanent eye injury.
 - Symptoms: Redness, lachrymation, swelling of tissue, burn.
- Ingestion**
- Severe burns of the mouth and throat, as well as danger of perforation of the Oesophagus and the stomach.
 - Symptoms: Nausea, abdominal pain, bloody vomiting, diarrhea, suffocation, cough, Severe shortness of breath.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Non combustible. For adjacent fires use foam, powder or carbon dioxide. **Do not use water.**

Hazardous decomposition products: Can react with some metals generating hydrogen gas with its associated hazard.

Special protective equipment: Wear protective clothing, goggles and gloves.

Other information: Reaction with moisture may generate sufficient heat to ignite with combustible material.

6. ACCIDENTAL RELEASE MEASURES**Evacuate all unnecessary personnel from the area.****Personal precautions:** Ensure suitable personal protection (including respiratory protection) during the removal of spillage. Protect against dust. See sections 7 and 8.**Environmental precautions:** See section 12**Methods for cleaning:** Contain spillage

Transfer to container for disposal or recovery.

Wash the spillage with copious amounts of water.

Spillage or uncontrolled discharges into watercourses, drain or sewers must be immediately alerted to the National Rivers Authority or other appropriate regulatory body.

7. HANDLING AND STORAGE**Usage precautions:** Avoid contact with skin and eyes.

Avoid inhalation of high concentrations of dust.

Keep away from aluminium, zinc, lead, tin, acids and chlorinated hydrocarbons.

Care should be taken when dissolving.

Atmospheric levels should be controlled in compliance with the occupational exposure limit.

Storage precautions: Keep containers tightly closed. Keep container dry.**Suitable materials for storage containers:** Stainless steel, Polyethylene.**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering measures:** Ensure adequate ventilation**Exposure Limits:**

Substance	Occupational Exposure Limits				Notations
	8 hr LTEL (1)		15 min STEL(2)		
	ppm	mgm ⁻³	ppm	mgm ⁻³	
Sodium Hydroxide	-	-	-	2(S)	

(1) Long-term exposure limit - 8 hour time weighted average.

(2) Short-term exposure limit - 15 mins time weighted average.

(S) Occupational Exposure Standard (OES)

(M) Maximum Exposure Limit (MEL)

(R) Recommended by suppliers

(A) Allocated limits by analogy with similar materials

(SK) Risk of absorption through unbroken skin

(Sen) Capable of causing sensitisation by inhalation

OEL's are taken from the current version of EH40, except those marked (R) or (A) which are assigned by the supplier of the substance.

Personal Protection:

Wear close fitting goggles or face shield.

Wear suitable protective clothing and gloves.

Wear suitable respiratory protective equipment if exposure to levels above the occupational limit is likely.

9. PHYSICAL AND CHEMICAL PROPERTIES

physical state	Deliquescent white solid in form of small pellets
specific gravity	2.13
solubility in water	Soluble with evolution of heat
pH (in water)	>12
flammability	the product is not flammable

10. STABILITY AND REACTIVITY**Stability:** Stable when stored as recommended.**Conditions to avoid:**

Can react violently in contact with acids and chlorinated hydrocarbons.

Highly reactive with aluminium, zinc, lead, tin and alloys of these metals.

Can react violently in contact with water.

Hazardous decomposition products: Usually flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Inhalation: Dust is severely irritant to the respiratory tract. Effect may vary from irritation of the nasal mucous membrane to severe lung irritation.

Skin contact: Corrosive. May cause severe burns with permanent skin damage which are slow to heal.

Eye contact: Extremely severe irritant/corrosive. May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

Ingestion: Will immediately cause corrosion of and damage to the gastrointestinal tract.

Lethal dose for man is approximately 5g.

Long term exposure: The severity of acute effects is such that significant repeated or prolonged exposure is unlikely.

12. ECOLOGICAL INFORMATION

The product is soluble in water and does not bioaccumulate. It degrades readily by reaction with natural carbon dioxide in the air. Concentrations greater than 10 ppm or a value above pH 10.5 may be fatal to freshwater fish and other aquatic organisms. Can cause damage to aquatic plants and vegetation. Concentrations sufficient to render effluent alkaline may cause damage to effluent treatment organisms.

Toxicity: Fishes, various species, LC50, 96 h, 35 – 189 mg/l

Crustaceans, Ceriodaphnia sp., EC50, 48 h, 40.4mg/l

PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT)

This substance is not considered to be very persistent and very bioaccumulating (vPvB)

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local and national legislation.

Solutions must be neutralised with acid before discharge.

Do not allow to enter drains or water courses or dispose of where ground or surface waters may be affected. Waste material should be disposed of in accordance with the Control of Pollution (Special Waste) Regulations 1980.

14. TRANSPORT INFORMATION

Always transport in closed containers that are upright and secure. Ensure persons transporting the product know what to do in the event of an accident or spillage.

Transport mode**Road/Rail – ADR/RID/AND****Details**

UN Number	1823
Class	8
Packaging Group	II
ADR/RID labels	8-Corrosive
HI/UN No.	80/1823
Proper shipping name	SODIUM HYDROXIDE, SOLID

Sea - IMDG

UN Number	1823
Class	8
Packaging Group	II
IMDG labels	8-Corrosive
HI/UN No.	1823
EmS	F-A
	S-B
Proper shipping name	SODIUM HYDROXIDE, SOLID

Air – IATA-DGR

UN Number	1823
Class	8
Packaging Group	II
ICAO labels	8-Corrosive
Proper shipping name	SODIUM HYDROXIDE, SOLID

15. REGULATORY INFORMATION

This product is classified under the relevant EEC Regulations and Directives (REACH)



Names: Contains Sodium Hydroxide 99-100% w/w
EC Label EC No 215-185-5

DANGER Causes severe skin burns and eye damage

16. OTHER INFORMATION

Keep out of reach of children
Read label before use
Do not breathe dust
Wash exposed skin thoroughly after handling
Store locked up

REFERENCE DOCUMENTS**STATUTORY**

Air Navigation (Dangerous Substances) Regulations
Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations 1996
Control of Pollution (Amendment) Act 1989
Control of Substances Hazardous to Health Regulations 1999
Environmental Protection (Duty of Care) Regulations 1992
Environmental Protection Act 1990
Health and Safety at Work Act 1974
International Rail/Road Transport - RID and ADR (Current Editions)
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations
Personal Protective Equipment at Work Regulations 1992
Protection of Eyes Regulations 1974
Provision and use of Personal Protective Equipment Regulations 1992
Special Waste Regulations 1996
The Pharmacy and Poisons Act 1933
The Poisons Act 1972
The Poisons Act List Order 1982 and amendments
The Poisons Rules 1982 and amendments

HEALTH AND SAFETY EXECUTIVE**GUIDANCE NOTES**

EH40	Occupational Exposure Limits
EH44	Dust: General Principles of Protection
HS(G)53	Respiratory Protective Equipment - A Practical Guide for Users
HS(G)71	Storage of Packaged Dangerous Substances
HS(G)193	COSHH Essentials: easy steps to control chemicals

BRITISH STANDARDS PUBLICATIONS

BS2091:	Respirators for Protection Against Harmful Dusts and Gases
BS2092:	Eye Protection for Industrial and Non-Industrial Users
BS4275:	Recommendations for the Selection, Use and Maintenance of Respiratory Protective Equipment
BS7028:	Selection, use and Maintenance of Respiratory Protective Equipment

The information contained in the Health and Safety Data Sheet is provided in accordance with current regulations. The product should not be used for purposes other than those identified without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular application.