

SAFETY DATA SHEET (SDS)

Compliant with OSHA 29 CFR 1910.1200, Regulation (EC) No 1272/2008 (CLP), and GHS Standards.

Product: Caustic Soda Flakes | Revision Date: 2026-02-02 | Version: 1.0

1. IDENTIFICATION

Product Name	Caustic Soda Flakes (Sodium Hydroxide)
CAS Number	1310-73-2
Recommended Use	Industrial chemical, pH adjustment, Cleaner, Degreaser, Soap Making. <i>Industrial/Technical Grade.</i>
Supplier Details	Alkemist Pakistan Middle East RAIL BAZAR NEAR CHEMA MEDICAL STORE CITY HAFIZABAD - PAKISTAN WhatsApp: +923152372222 Email: admin@alkemist.org
Emergency Phone	CHEMTREC (USA): 1-800-424-9300 International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

- Skin Corrosion/Irritation: Category 1A
- Serious Eye Damage: Category 1
- Corrosive to Metals: Category 1

LABEL ELEMENTS



DANGER

Hazard Statements:

- H290:** May be corrosive to metals.
H314: Causes severe skin burns and eye damage.

Precautionary Statements:

- P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P280: Wear protective gloves/clothing/eye protection.
P303+P361+P353: IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water. Remove contact lenses.
P310: Immediately call a POISON CENTER/doctor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Formula	Weight %
Sodium Hydroxide	1310-73-2	NaOH	> 98.0%
Sodium Carbonate (Impurity)	497-19-8	Na ₂ CO ₃	< 1.0%



4. FIRST AID MEASURES

- **General Advice:** Immediate medical attention is required. Show this SDS to the doctor.
- **Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Do not use mouth-to-mouth if victim ingested or inhaled the substance.
- **Skin Contact:** Brush off loose particles from skin. Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. Immediate medical attention is required.
- **Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician immediately. Risk of blindness.
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

5. FIREFIGHTING MEASURES

- **Suitable Extinguishing Media:** Substance is non-flammable. Use extinguishing agent suitable for surrounding fire. ****Do not use water jet directly on the material**** as it generates heat.
- **Specific Hazards:** Exothermic reaction with water. Contact with metals may evolve flammable hydrogen gas.
- **Firefighting Gear:** Wear self-contained breathing apparatus (SCBA) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Avoid formation of dust. Avoid contact with skin, eyes and clothing. Wear appropriate PPE. Ensure adequate ventilation.
- **Environmental Precautions:** Prevent product from entering drains. High pH can harm aquatic life.
- **Methods for Cleaning Up:** Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Do not flush with water until bulk material is removed (heat generation).

7. HANDLING AND STORAGE

- **Handling:** Avoid formation of dust. Do not breathe dust. Avoid contact with skin and eyes. **WARNING:** Considerable heat is generated when dissolved in water. Always add caustic to water, never water to caustic.
- **Storage:** Keep containers tightly closed in a dry, cool, and well-ventilated place. Hygroscopic (absorbs moisture from air). Store away from acids, metals (Aluminum, Zinc, Tin), and organic materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Agency	Limit
Sodium Hydroxide	OSHA PEL	TWA 2 mg/m ³
Sodium Hydroxide	ACGIH TLV	Ceiling 2 mg/m ³

Engineering Controls: Use local exhaust ventilation to keep airborne concentrations below exposure limits. Safety shower and eye bath are mandatory.

Personal Protective Equipment (PPE):

- **Eyes:** Face shield and safety goggles.
- **Skin:** Wear impervious, chemical-resistant gloves (Nitrile, Neoprene, PVC) and complete protective suit.
- **Respiratory:** Use NIOSH-approved particulate respirator (N95/P100) if dust is generated.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, solid flakes	Odor: Odorless
pH: ~14 (5% Solution)	Molecular Weight: 39.997 g/mol
Boiling Point: 1390°C	Melting Point: 318°C
Solubility: Highly soluble in water (Exothermic)	Flammability: Non-flammable
Specific Gravity: 2.13 g/cm ³	Vapor Pressure: Negligible

10. STABILITY AND REACTIVITY

- **Reactivity:** Reacts violently with acids. Corrosive to metals (Aluminum, Zinc, Tin) releasing flammable Hydrogen gas.
- **Chemical Stability:** Stable under normal conditions. Rapidly absorbs moisture and carbon dioxide from the air (deliquescent).
- **Conditions to Avoid:** Moisture, dust formation, heat.
- **Incompatible Materials:** Acids, Organic materials, Chlorinated solvents, Aluminum, Magnesium, Zinc.
- **Hazardous Decomposition:** Sodium oxides. Hydrogen gas (reaction with metals).

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Skin, Eyes, Ingestion.

- **Acute Toxicity:** Corrosive. Not classified for acute toxicity but causes severe tissue damage.
- **Skin Corrosion:** Causes severe burns (Category 1A). Deep tissue destruction.
- **Eye Damage:** Causes serious eye damage. Irreversible corneal damage, blindness.
- **Inhalation:** Dusts cause severe irritation to the respiratory tract, burning of nose and throat.
- **Carcinogenicity:** Not listed by IARC, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** Harmful to aquatic life due to high pH. LC50 (Fish, 96h): 45.4 mg/L (Oncorhynchus mykiss).
- **Persistence:** Inorganic substance. Does not biodegrade. Dissociates into Na⁺ and OH⁻ ions.
- **Bioaccumulation:** Not expected to bioaccumulate.
- **Mobility:** Highly mobile in water.

13. DISPOSAL CONSIDERATIONS

Dispose of as hazardous waste (Corrosive, D002). Neutralize slowly and carefully with dilute acid before disposal if permitted. Do not put acidic products in containers previously holding caustic soda.



14. TRANSPORT INFORMATION

Parameter	Description
UN Number	UN1823
Proper Shipping Name	SODIUM HYDROXIDE, SOLID
Hazard Class	8 (Corrosive)
Packing Group	II
Labels Required	Corrosive (Class 8) 

15. REGULATORY INFORMATION

- **TSCA (USA):** Listed.
- **SARA 311/312:** Acute Health Hazard (Corrosive).
- **CERCLA RQ:** 1000 lbs.
- **California Prop 65:** Not listed.
- **DEA List:** Not listed as a controlled substance.

16. OTHER INFORMATION

HMIS: Health: 3 | Flammability: 0 | Reactivity: 1

NFPA: Health: 3 | Fire: 0 | Instability: 1 (W)

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of its publication. It is intended only as guidance for safe handling and is not a warranty. Alkemist Pakistan | Middle East assumes no liability for the use of this product.

