MATERIAL SAFETY DATA SHEET

Sodium Hydroxide Flakes / Prills (Caustic Soda Flakes / Prills)

1. Chemical Product & Company Identification

Chemical Product	Sodium Hydroxide Flakes/Prills (Caustic Soda Flakes/Prills)
Company Name	Cosmo Chemistry India Pvt. Ltd.
Address	Office No. 713, 7th Floor, Millennium Business Hub, Sarthana Jakatnaka, Varachha Main Road, Surat, Gujarat, India – 395006
Email	info@cosmochemistryindia.com
Contact No.	+91 79845 84838

2. Composition & Information on Ingredients

Chemical Name	NaOH, Sodium Hydroxide Flakes/Prills

3. Hazards Identification

Emergency Overview

POISON! DANGER! CORROSIVE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES BURNS TO ANY AREA OF CONTACT. REACTS WITH WATER, ACIDS AND OTHER MATERIALS.

Potential Health Effects

Inhalation	Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.
Ingestion	Corrosive. Swallowing may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appear days after exposure.
Skin Contact	Corrosive. Contact with skin can cause irritation or severe burns and scarring with greater exposures.
Eye Contact	Corrosive. Causes irritation of eyes, and with greater exposures can cause burns that may result in permanent impairment of vision, even blindness.
Chronic Exposure	Prolonged contact with dilute solutions or dust has a destructive effect upon tissue.

Aggravation of Pre-existing Conditions	Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

4. First Aid Measures

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Ingestion	Do NOT induce vomiting. Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin Contact	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician immediately. Wash clothing before reuse.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire	Not considered to be a fire hazard. Hot or molten material can react violently with water. Can react with certain metals, such as aluminium, to generate flammable hydrogen gas.
Explosion	Not considered to be an explosion hazard.
Fire Extinguishing Media	Use any means suitable for extinguishing surrounding fire. Adding water to caustic solution generates large amounts of heat.

6. Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with dilute acid such as acetic, hydrochloric or sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal.

7. Handling and Storage

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities. Always add the caustic to water while stirring; never the reverse. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Do not store with aluminium or magnesium. Do not mix with acids or organic materials.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits	OSHA Permissible Exposure Limit (PEL): 2 mg/m³ Ceiling – ACGIH
Threshold Limit Value (TLV)	2 mg/m³ Ceiling
Ventilation System	A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion into the general work area. Refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Respirators	If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-facepiece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified, whichever is lowest. For emergencies or unknown exposure levels, use a full-facepiece positive-pressure, air-supplied respirator. Warning: air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection	Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance	White, deliquescent pellets
Odour	Odourless
Solubility	111 g/100 g of water
Specific Gravity	2.13
pH	13 – 14 (0.5% solution)
% Volatiles by Volume @ 21°C (70°F)	0
Boiling Point	1390°C (2534°F)
Melting Point	318°C (604°F)

Vapour Density (Air=1)	> 1.0
Vapour Pressure (mm Hg)	Negligible
Evaporation Rate (BuAc=1)	No information found

10. Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage. Very hygroscopic. Can slowly pick up moisture from air and react with carbon dioxide from air to form sodium carbonate.
Hazardous Decomposition Products	Sodium hydroxide. Decomposition by reaction with certain metals releases flammable and explosive hydrogen gas.
Hazardous Polymerization	Will not occur.
Incompatibilities	Contact with water, acids, flammable liquids, and organic halogen compounds, especially trichloroethylene, may cause fire or explosion. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as aluminium, tin, and zinc causes formation of flammable hydrogen gas.
Conditions to Avoid	Moisture, dusting and incompatibles.

11. Toxicological Information

Irritation data: skin, rabbit – 500 mg/24H, severe; eye, rabbit – 50 µg/24H, severe. Investigated as a mutagen.

12. Ecological Information

Environmental Fate	No information found
Environmental Toxicity	No information found

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA-approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name	Sodium Hydroxide, Solid

Hazard Class	8
UN/NA	UN1823
Packing Group	II
CAS No.	1310-73-2

15. Regulatory Information

EEC Labeling	Sodium Hydroxide
Symbol	C – Corrosive
Phrases	R35 – Causes severe burns

16. Information

NFPA Ratings	Health: 3, Flammability: 0, Reactivity: 1

Information contained in this material safety data sheet is believed to be reliable but no representation, guarantee or warranty of any kind is made as to its accuracy, suitability for a particular application, or results to be obtained from it. It is upto the manufacturer/seller to ensure that the information contained in the material safety data sheet is relevant to the product manufactured/handled or sold by them, as the case may be. The Government makes no warranties, expressed or implied, in respect of the adequacy of this document for any particular purpose.

This is a computer generated document. No stamp or signature is required.