

**Caustic soda flakes (sodium hydroxide flakes) are flakes
in white color which are hygroscopic and soluble in water
Caustic soda flakes are obtained by evaporating of
qualified liquid caustic soda which is produced by
membrane technology**

:Applications

- Acid neutralization -**
- Manufacturing of soaps and detergents -**
- Pulp and paper industry -**
- Oil and gas industry -**
- Pharmaceutical industry -**
- Aluminum processing -**

**)Caustic Soda Flakes (NaOH
99-98%
play PP Bag 2 25kg :Packing
125 in Jumbo bag (**



Row	Testing description	Unit	Range	Testing Result
1	Purity	%	98-99	99.13
2	Carbonate as Na ₂ CO ₃	%	1 max	0.11
3	Cl as NaCl	%	0.06 max	0.04
4	SO ₄ as Na ₂ SO ₄	%	0.01 max	<0.01
5	Si as SiO ₂	%	0.02 max	0.041
6	Al as Al ₂ O ₃	mg/kg	20 max	26
7	Heavy metals As Pb	mg/kg	20 max	28
8	Fe as Fe ₂ O ₃	mg/kg	30 max	10
9	Insoluble in Water	%	0.1 max	0.1
10	Cu	mg/kg	2 max	17
11	Mn	mg/kg	1 max	3



Material Safety Data Sheet (MSDS) - Caustic Soda


1-Material Specifications

Material Name	Caustic soda flakes (Sodium Hydroxide), NaOH
Chemical name	Sodium hydroxide
Common Name	Caustic soda flakes, Alkali Soda
Use of the substance/mixture	Industrial use •Laboratory chemicals •Not for food, drug or household use
CAS NO.	1310-73- 2
EU NO.	215-185- 5
Manufacturing origin	Pars chemia chlor

2- Physical and Chemical Properties

Chemical name	Structural Formula	Molar Mass	Purity	Melting Point	Boiling Point	Density
Sodium hydroxide	NaOH	39.9971(gmol ⁻¹)	%98	318°C	1388°C	2.13(g.cm ³)


3- Hazards of Contact

Damage organs		Eyes, respiratory system, skin
	Emergency	1-It causes severe respiratory irritation and breathing failure. 2- It causes severe eye irritation.
	Ways of exposure	Inhalation, skin contact, eye contact
	Eye	Causing severe eye burn and severe eye damage.
	Skin	Prolonged contact with skin causes skin burn.
	Inhalation	Severe respiratory irritation, resulting in wheezing, pulmonary edema, and respiratory failure.
	Swallow	If swallowed it causes lips, mouth and esophagus burning, diarrhea and vomiting.
	Chronic effects	Long-term exposure to the skin causes severe burns, burns and inflammation of the skin.



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4- First Aids

	measures after eye contact	While keeping eyes completely open, wash them for 15 minutes with water and meet a doctor immediately
	measures after skin contact	Remove any clothes and shoes then rinse the injured part(s) for 15 minutes with soap and water and meet a doctor immediately
	Inhalation	Go to an open space and breathe clean fresh air. In case of problem in breathing, use oxygen masks
	Swallow	Rinse the stricken person's mouth and give him plenty of water to drink. Do not induce vomiting. In case of vomiting, keep him bounding forward. If possible, give him milk and check his consciousness.
	measures general	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.



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5- Actions in case of Fire

	Extinguishing element	Use a suitable fire extinguisher to put out the fire. Never use water for putting out its fire because adding water to caustic soda flakes produce a large amount of heat.
	Protective equipment	Take the soda container to a safe place far from the fire carefully and wear protective clothes, mask and helmet.
	Other Details	If exposed to heat, caustic soda flakes would be decomposed and would release toxic vapor.

6- Action in Case of accidental dispersion

Methods for Discharge	Ventilate the closed space before entering.
Methods for containment	Avoid pouring caustic soda flakes into the water disposal channel or burying it under the ground. If possible, stop the leakage flow cautiously.
Methods for cleaning up	Prevent making any dust, while gathering the material by means of a spade or a trowel.


7- Shipment and Warehousin

	packing	It must be kept in two-ply polypropylene or polyethylene packages, which are properly sewed
	Shipment	Carry the container carefully and try to keep the inside of the container dry and cool. When carrying the substance be careful not to contact your skin, eyes and clothes with it. When your job finished, wash your hands and face with water.
	warehousin	Keep caustic soda flakes away from foods, drinks, reach of children and animal's foods.




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8- personal Protective equipments

	Materials for protective clothing	Give good resistance: natural rubber, neoprene, nitrile rubber. give less resistance: butyl rubber, polyethylene, PVA, give Poor resistance: natural fibres
	Eye protection	Face shield. In case of dust production: protective goggles
	Skin and body protection	Corrosion-proof clothing. In case of dust production: head/neck protection
	Hand protection	Gloves
	Respiratory protection	Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus

9- Environmental precautions

	Environmental Considerations	It can be neutralized by means of acids. It increases the alkaline property of water and soil.
	the environment	high concentrations cause the destruction of organisms. The carbon dioxide in the air combines the effect of the flake to some extent.
	Ability decomposed	In contact with heat and flame, it would be decomposed and produce toxic vapor.
	Aquatic environment	10 to 20 mg in water causes 50 percent of the fish to die.

