SUPREME PETRO CHEMICALS
IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS · SINCE 1997

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SAFETY DATA SHEET (SDS)

Caustic Soda *SDS*

REV 3.1
29 JULY 2026
GHS REV.11 (2025)

CAS **1310-73-2** EC **215-185-5** SIGNAL WORD **DANGER**

GHS05
Corrosive

GHS07
Harmful / Irritant

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Name	Caustic Soda
Product Type	Sodium Hydroxide — corrosive / irritant chemical
Chemical Family	Inorganic Base / Alkali Metal Hydroxide
CAS No.	1310-73-2
EC No.	215-185-5
Intended Use	Industrial / professional use as described on the SPC product page.
Restrictions on Use	Industrial / professional use only. Confirm suitability for final application before use.
Supplier	Supreme Petro Chemicals
Address	No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India
Emergency Contact	Sanketh — +91 86087 80096 · Sudarshan — +91 81979 47045
Email	admin@supremepetrochemicals.com
Product Page	https://www.supremepetrochemicals.com/products/caustic-soda
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

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Met. Corr. 1; Skin Corr. 1; Eye Dam. 1; STOT SE 3
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GHS Classification	Met. Corr. 1; Skin Corr. 1; Eye Dam. 1; STOT SE 3
Signal Word	DANGER

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GHS Pictograms	GHS05 (Corrosive) | GHS07 (Harmful / Irritant)

HAZARD STATEMENTS

- H290 — May be corrosive to metals
- H314 — Causes severe skin burns and eye damage
- H318 — Causes serious eye damage
- H335 — May cause respiratory irritation

PRECAUTIONARY – PREVENTION

- P234 — Keep only in original packaging.
- P260 — Do not breathe dust / fume / gas / mist / vapours / spray.
- P264 — Wash hands thoroughly after handling.
- P270 — Do not eat, drink or smoke when using this product.
- P271 — Use only outdoors or in a well-ventilated area.
- P273 — Avoid release to the environment.
- P280 — Wear protective gloves / protective clothing / eye protection / face protection.

PRECAUTIONARY – RESPONSE / STORAGE / DISPOSAL

- P301+P330+P331 — IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 — IF ON SKIN OR HAIR: Remove / take off immediately all contaminated clothing. Rinse skin with water / shower.
- 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. Continue rinsing.
- P310 — Immediately call a POISON CENTER or doctor.
- P312 — Call a POISON CENTER or doctor if you feel unwell.
- P363 — Wash contaminated clothing before reuse.
- P390 — Absorb spillage to prevent material damage.
- P405 — Store locked up.
- P501 — Dispose of contents / container in accordance with local regulations.

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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	EC NO.	% W/W	GHS CLASSIFICATION
Sodium Hydroxide (Caustic Soda)	1310-73-2	215-185-5	≥98 (anhydrous basis)	Met. Corr. 1; Skin Corr. 1; Eye Dam. 1; STOT SE 3 — H290, H314, H318, H335

Full text of H-statements listed in Section 16.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person to fresh air immediately. Keep comfortable for breathing. If symptoms persist (coughing, irritation, difficulty breathing), seek medical attention.
Skin Contact	Remove contaminated clothing immediately. Flush affected skin with large amounts of water for at least 15–20 minutes. Seek medical attention if burns, blistering or persistent irritation occur.
Eye Contact	Rinse cautiously with water for at least 15–20 minutes. Remove contact lenses if present and easy to do; continue rinsing. Seek immediate medical attention — caustic soda can cause permanent eye damage.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Immediately call a POISON CENTER or physician.
Note to Physician	Treat symptomatically. Caustic alkali burns may be deceptive — consider endoscopy if ingested. Calcium gluconate gel not required (unlike HF); copious water irrigation is the primary treatment.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Product is non-combustible. Use media appropriate for surrounding fire: water spray, dry powder, CO_2 or foam.
Unsuitable Media	High-pressure water jet directed at product — may spread alkali solution. Avoid directing water onto reactive adjacent materials.
Specific Hazards	Caustic soda itself does not burn. However, on contact with water or moisture it generates heat (exothermic dissolution). Contact with

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	aluminium, zinc or tin can liberate hydrogen gas, creating a flammable / explosive atmosphere.
Protective Equipment	Wear self-contained breathing apparatus (SCBA) and full chemical-protective clothing. Do not breathe combustion or decomposition fumes.
Special Procedures	Evacuate non-essential personnel. Cool containers exposed to heat with water spray. Prevent contaminated fire-water run-off from entering drains, sewers or watercourses.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate the area. Keep unauthorised personnel away. Use full PPE as described in Section 8 (gloves, eye protection, respiratory protection). Avoid generating dust. Do not touch or walk through spilled material.
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. Caustic soda raises pH and is harmful to aquatic life. Notify authorities if large quantities enter waterways.
Containment / Clean-up	For solid spills: sweep or vacuum carefully into compatible, labelled containers; avoid generating dust. For solution spills: absorb with inert dry material (sand, vermiculite). Neutralise cautiously with dilute acid if required before disposal. Collect all waste in labelled, compatible containers.
Reference to Sections	See Section 8 for PPE; Section 13 for disposal; Section 15 for regulatory requirements.

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Avoid generating dust. Use adequate local exhaust ventilation. Prevent contact with skin, eyes and clothing. Ground equipment when handling solutions to prevent static build-up. Do not mix with acids, oxidising agents or reactive metals.
Hygiene	Wash hands and exposed skin thoroughly after handling. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke during use.
Storage Conditions	Store in original, tightly closed compatible containers (polyethylene, polypropylene or steel — avoid aluminium, zinc, tin). Keep dry; caustic soda is hygroscopic and absorbs CO_2 from air.

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Storage Temperature	Ambient temperature (store in a cool, dry, well-ventilated area). Keep away from moisture.
Incompatible Materials	Strong acids (exothermic neutralisation), oxidising agents (chlorine, nitric acid, permanganates), reactive metals (aluminium, zinc, tin — hydrogen evolution), and organic materials in concentrated form.
Segregation	Segregate from food, drink, animal feed, acids, and incompatible chemicals. Store locked up and labelled.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	NaOH: OSHA PEL (ceiling) 2 mg/m³; ACGIH TLV-C 2 mg/m³ (ceiling); NIOSH REL-C 2 mg/m³ (ceiling). India: OSHA/ACGIH values referenced in absence of a notified national OEL. Verify current local OEL with regional authority before use.
Engineering Controls	Use closed handling systems or local exhaust ventilation (LEV) to control dust and aerosol levels below OEL. Provide general dilution ventilation for lower-concentration work. Provide emergency eyewash and safety shower accessible within 10 seconds.
Respiratory Protection	Where dust or aerosol exposure exceeds OEL: use a NIOSH/EN-approved respirator with P100 (particulate) filter or half-face respirator with combined P2/acid-gas cartridge. Use SCBA for emergencies or confined-space entry.
Hand / Eye / Skin	Gloves: chemical-resistant (butyl rubber, neoprene or PVC; minimum 0.4 mm); select breakthrough time appropriate to task. Eyes/Face: EN 166 / ANSI Z87.1 chemical splash goggles; add full face shield for pour or splash operations. Body: chemical-resistant apron or coverall; chemical-resistant safety boots.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White opaque solid — pellets, flakes, beads or powder (commercial grades). Aqueous solution is colourless.
Odour	Odourless
Odour Threshold	Not applicable (odourless)
pH	~13–14 (1% w/v aqueous solution at 25 °C); strongly alkaline
Melting / Freezing Point	318 °C (604 °F) — anhydrous NaOH [SOURCE CORRECTION: source listed this value (604 °F) under 'Boiling Point'; remapped to Melting

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	Point]
Boiling Point / Range	1388 °C (2530 °F) at 760 mmHg — anhydrous NaOH [SOURCE CORRECTION: source 'greater than 266 °F' under Flash Point was not the boiling point; correct literature value used]
Flash Point	Not applicable — non-flammable inorganic solid [SOURCE CORRECTION: source had meaningless text under Flash Point; NaOH does not have a flash point]
Auto-ignition Temperature	Not applicable — non-flammable
Flammability Limits	Not flammable — no LEL/UEL applicable
Vapour Pressure	~0 mmHg at 20 °C (negligible) [SOURCE CORRECTION: source showed '0 mmHg (approx)' under Relative Density; remapped here]
Vapour Density (air = 1)	Not applicable at ambient temperature (solid)
Relative Density	2.13 at 20 °C (anhydrous solid, USCG/NIOSH) [SOURCE CORRECTION: source had '2.13 at 68 °F — denser than water' under Solubility; remapped to Relative Density. Value '1.5 at 68 °F' in same line appears to be a 50% solution density — flagged for verification]
Solubility in Water	111 g / 100 mL at 20 °C (very soluble; exothermic dissolution) [SOURCE CORRECTION: source had '111 % (NIOSH, 2024)' under Evaporation Rate; remapped here]
Log Pow (Partition Coeff.)	-3.88 (negligible partition — highly water-soluble)
Evaporation Rate	Not applicable — non-volatile solid [SOURCE CORRECTION: source had solubility data here; evaporation rate is N/A for NaOH solid]
Viscosity	~4.0 cP at 350 °C (molten NaOH) — not meaningful at ambient temperature for solid form
VOC Content	0 % (no volatile organic compounds)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions. Hygroscopic — absorbs moisture and CO_2 from air; store sealed.
Conditions to Avoid	Avoid moisture ingress, heat, contact with incompatible materials, and dust generation.
Incompatible Materials	Strong acids (violent exothermic neutralisation); oxidising agents (chlorine, nitric acid, permanganates, peroxides); reactive metals (aluminium, zinc, tin — liberates hydrogen gas). Avoid contact with concentrated acids and halogens.

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Hazardous Decomposition	At very high temperatures (>1000 °C): decomposes to sodium oxide and water. No toxic decomposition products under normal storage or handling.
Hazardous Reactions	Will not occur under normal storage conditions when handled correctly. Violent reaction with acids. Contact with aluminium or zinc generates flammable hydrogen gas.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD_{50} (rat, oral): 325 mg/kg (RTECS). Classified as acutely toxic by ingestion at high doses. Causes severe burns to mouth, throat, oesophagus and stomach.
Acute Dermal Toxicity	Causes severe skin burns (Skin Corr. 1, H314). Corrosive — saponifies tissue proteins. Immediate irrigation required.
Acute Inhalation Toxicity	LC_{50} data not available. Dust and aerosol are highly irritating to upper respiratory tract (STOT SE 3, H335). Inhalation of high concentrations may cause pulmonary oedema.
Skin Irritation	Causes severe skin burns (Skin Corr. 1) — irreversible corrosive damage at site of contact.
Eye Irritation	Causes serious eye damage (Eye Dam. 1, H318) — may cause permanent damage or blindness. Immediate irrigation for ≥15 minutes required.
Sensitisation	Not classified as a skin or respiratory sensitiser.
Carcinogenicity	Not classified as a carcinogen. Not listed by IARC, NTP or OSHA.
Mutagenicity	Not classified as mutagenic.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Caustic soda is harmful to aquatic organisms primarily through pH elevation. LC_{50} (fish, 96h): 35–196 mg/L (species-dependent). No aquatic environment classification under GHS based on reviewed data, but avoid environmental release due to pH effects.
Persistence / Degradability	Inorganic substance — not applicable for biodegradability assessment. In aqueous systems it dissociates to Na^+ and OH^-; OH^- is neutralised by CO_2 / ambient chemistry. No persistent organic pollutant concern.

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Bioaccumulation	Not expected to bioaccumulate (log Pow = -3.88; dissociates in water).
Mobility in Soil	Highly soluble; mobile in soil and groundwater. Can raise soil pH. Prevent release to soil and watercourses.
Other Adverse Effects	Avoid uncontrolled release to the environment. Manage releases under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of through an authorised hazardous-waste contractor in accordance with local regulations. Caustic soda solutions may be neutralised with dilute acid under controlled conditions before disposal to drain — verify local consent/permit requirements.
Contaminated Packaging	Empty containers may retain corrosive residues; handle as hazardous until thoroughly rinsed. Triple-rinse and crush where permitted, or return to supplier / licensed waste contractor.
Indian Regulations	Classified as hazardous waste under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Obtain authorisation from State Pollution Control Board (SPCB) for disposal. Follow MSIHC Rules, 1989 where applicable.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	UN 1823	UN 1823	UN 1823
Proper Shipping Name	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID
Class	8 (Corrosive)	8 (Corrosive)	8 (Corrosive)
Packing Group	II	II	II
Marine Pollutant	No	No	N/A

UN-certified packaging required for international transport. Containers must be labelled with Class 8 (Corrosive) placard, UN 1823, PG II and product name. ADR Tunnel Restriction Code: E. IMDG EmS: F-A, S-B. Verify current carrier and country-specific requirements before each shipment.

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SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	Sodium Hydroxide is listed in Annex VI of EU CLP Regulation (EC) No 1272/2008 with harmonised classification. Observe REACH registration, downstream user and notification requirements where applicable. Classified and labelled per Section 2.
OSHA (USA)	Subject to OSHA HCS/HazCom 2012 (29 CFR 1910.1200). TSCA inventory: listed (TSCA CAS 1310-73-2). NIOSH REL-C: 2 mg/m³ ceiling.
India	Observe applicable requirements under: MSIHC Rules, 1989; Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; The Environment Protection Act, 1986; Factories Act, 1948; Motor Vehicles Act (transport); and relevant SPCB conditions.
Other Jurisdictions	Canada WHMIS 2015 / HPR: classify / label under GHS-aligned classification in Section 2; bilingual SDS / label may be required for Canadian sale. Australia AICS: listed. China GB/T: use applicable GB SDS standard where marketed. Middle East / GCC: observe GHS-aligned local requirements. Final market placement requires confirmation of local inventory status, OELs, transport class and waste code.

SECTION 16 OTHER INFORMATION

Prepared By	**Supreme Petro Chemicals** — Technical Department
SDS Standard	UN GHS Rev.11 (2025); OSHA HCS/HazCom; EU CLP/REACH Annex II; Canada WHMIS/HPR — 16-section format
Revision Date	24 June 2026
Version	3.0 (supersedes prior issues)
Disclaimer	Information is given in good faith and believed accurate at issue. It does not constitute a specification or guarantee; the user is responsible for safe use, handling and compliance.

FULL TEXT OF H-STATEMENTS

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

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- H335 — May cause respiratory irritation