

Soda Ash

Safety data sheet in the 16-section GHS format · CAS 497-19-8

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1. Identification of the substance and of the supplier

Product name	Soda Ash
Synonyms	sodium carbonate, washing soda, soda ash light, soda ash dense
C.A.S. number	497-19-8
Molecular formula	Na ₂ CO ₃
Grade supplied	99.2% min / 99.2% min
Product group	Alkalis & Bases
Identified uses	Glass, Detergents, Textiles & dyeing, Water treatment, Chemicals, Pulp & paper
Supplier	Velora Chemicals Private Limited
Emergency contact	Medical, fire or spill emergency — call the emergency services first: 112 (all-India), 101 fire, 108 ambulance. Velora Chemicals Private Limited does not at present operate a 24-hour chemical emergency advice line, and this sheet does not pretend otherwise. Every consignment despatched by road carries an emergency information panel under rule 134 of the Central Motor Vehicles Rules 1989 bearing a number from which expert advice on this material can be obtained, and the producer's safety data sheet issued with the consignment carries the producer's own 24-hour number where one is operated. For product, grade and documentation queries in business hours: +91 99255 22674.

2. Hazards identification

GHS signal word	Warning
Hazard classification	Eye Irrit. 2 — H319 (EU harmonised, CLP Annex VI index 011-005-00-2). This is the only harmonised hazard class: sodium carbonate is NOT classified under Annex VI for skin corrosion or irritation, acute toxicity, flammability or environmental hazard. Some suppliers additionally self-classify STOT SE 3 — H335 for dust, and Sigma-Aldrich classifies it as Eye Irrit. 2A — H319

3. Composition / information on ingredients

Substance	Soda Ash
C.A.S. number	497-19-8
Molecular weight	105.99 g/mol
Composition	99.2% min / 99.2% min

4. First-aid measures

Eye contact	Immediately flush the eye with plenty of gently flowing water for at least 15 minutes, holding the eyelids apart; remove contact lenses if present and easy to do, and continue rinsing. Refer for medical attention. Soda ash dust and solutions cause serious eye irritation and prolonged contact can damage the cornea, so do not cut the irrigation short because the material looks harmless.
Skin contact	Brush the dry material off the skin first, then remove contaminated clothing and rinse the skin with plenty of water or shower. Wash with soap and water. Get medical attention if irritation persists. Wet soda ash is alkaline and prolonged or repeated contact, particularly under gloves, boots or a waistband, can cause irritation and alkaline burns.
Inhalation	Move the casualty to fresh air and keep at rest (ILO ICSC 1135). If coughing, sore throat or difficulty breathing persists, get medical attention. Soda ash dust is an upper-airway irritant.
Ingestion	Rinse the mouth with water. Do NOT induce vomiting (some SDSs, including Panreac, wrongly advise inducing vomiting for this alkaline material — Tata Chemicals correctly advises against it). If the casualty is conscious, give one or two glasses of water to drink. Give nothing by mouth to an unconscious person. Refer for medical attention.

5. Fire-fighting measures

Flash point	Not flammable (non-combustible)
Suitable extinguishing media	Water fog, foam, dry chemical powder or carbon dioxide, chosen to suit the surrounding fire. The substance itself does not contribute fuel.
Unsuitable extinguishing media	Do not use a high-pressure water jet: it will spread the material and the fire.
Special hazards arising from the substance	Hazardous gases and decomposition products may be formed in a fire, from this substance or from its packaging and the materials stored with it. Packaging and pallets are themselves a substantial fire load. That is true even though the contents do not contribute fuel.
Advice for fire-fighters	Fire-fighters must wear self-contained breathing apparatus and full protective clothing. Keep unnecessary personnel away and upwind. Prevent firefighting run-off from entering drains, surface water or groundwater.

6. Accidental release measures

Keep unnecessary personnel away and upwind, and ventilate. Wear the protective equipment in section 8, including respiratory protection, before approaching. Eliminate ignition sources and prohibit smoking before approaching. Avoid raising dust, and never blow a spilled powder down with compressed air. Dry-collect — vacuum with a HEPA-filtered unit, or sweep gently without raising dust — into labelled, closable containers for disposal under section 13. A spill inside a vessel, tank, silo, container or pit is a confined-space job: test the atmosphere and work under permit. A fine powder makes a floor slippery, especially once wet, so treat every wetted surface as slippery until it has been washed and dried. Prevent entry to drains, surface water and groundwater. Do not return spilled material to the original container; a damaged bag should be overpacked into a labelled outer rather than decanted into an unmarked one.

7. Handling and storage

- Soda ash picks up moisture and will cake in a humid godown. Keep bags sealed, off the floor and under cover, and rotate stock rather than letting bags sit through a monsoon.
- It is not classified as a dangerous good for transport, which makes it simpler to move than the acids and caustic — but the dust is an irritant, so dust masks and goggles at the tipping point.
- Choose the grade for how you handle it, not just what the process needs. Dense flows far better through hoppers and screw conveyors; light dissolves faster in a make-up tank.

Storage: Store in a cool, dry, well-ventilated area in tightly closed, moisture-proof HDPE-lined bags, big bags or sealed silos, away from acids, moisture and aluminium. Sodium carbonate is hygroscopic and cakes into hard lumps if it absorbs water or carbon dioxide, so protect against damp floors and rain ingress. Control dust generation during handling and transfer; use

local exhaust ventilation and eye protection. Keep away from food and feedstuffs unless the grade is food grade and stored accordingly.

8. Exposure controls / personal protection

Engineering controls. Enclose every transfer, tipping, bag-slitting and sampling point and fit local exhaust extraction at each, and keep airborne concentrations below the limit in force at the place of use. Provide an eyewash within reach of the working position, and a safety shower wherever the material is classified corrosive or irritant or is handled in quantity. Do not eat, drink or smoke in the handling area; wash before breaks. Where no limit is stated above, occupational exposure limits vary by jurisdiction: check the limit in force at the place of use and the producer's sheet for the grade supplied, and record which value your assessment adopted. Select eye, skin and respiratory protection on the strength of a measured or modelled exposure assessment, not on this sheet alone.

9. Physical and chemical properties

Appearance	White, odourless, hygroscopic solid — free-flowing granules in the dense grade, fine powder in the light grade
Physical state	Solid (granular or powder)
Melting / freezing point	851 C (ILO ICSC 1135); 854 C (Panreac SDS)
Boiling point	Not applicable — sodium carbonate decomposes on strong heating rather than boiling; ILO ICSC 1135 and Panreac give no boiling point. Sigma-Aldrich quotes 1600 C
Relative density	2.53 g/cm ³ true density at 20 C (Sigma-Aldrich 2.532; Panreac 2.533). Bulk density of dense grade 1.00-1.10 g/cm ³ (62.4-68.6 lb/ft ³ , Tata Chemicals dense ash datasheet); bulk density of the light grade is lower and grade-specific — Not available, take it from the producer datasheet
Solubility in water	217-220 g/L at 20 C (Sigma-Aldrich 217 g/L; Panreac 220 g/L) — freely soluble; dissolution is exothermic. ILO ICSC 1135 quotes a higher figure of 30 g/100 mL at 20 C
pH	12 at 106 g/L (approximately a 10% w/v solution) at 25 C (Sigma-Aldrich SDS). Tata Chemicals quotes 11.6 without stating the concentration
Flash point	Not flammable (non-combustible)
Auto-ignition / ignition temperature	Not available
Explosive / dust-explosion properties	Not available
Vapour pressure	Not available
Vapour density	Not available
Partition coefficient (log Pow)	Not available
Particle characteristics	Not available
Molecular weight	105.99 g/mol

10. Stability and reactivity

Incompatible materials	Acids of all kinds (vigorous effervescence, carbon dioxide evolution and heat — violent with concentrated sulphuric acid); water and moisture (caking and heat of solution); aluminium, especially finely divided aluminium and in the presence of moisture; magnesium; alkali and alkaline-earth metals including lithium and calcium; phosphorus pentoxide; calcium hypochlorite; fluorine
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Conditions to avoid	Store in a cool, dry, well-ventilated area in tightly closed, moisture-proof HDPE-lined bags, big bags or sealed silos, away from acids, moisture and aluminium. Sodium carbonate is hygroscopic and cakes into hard lumps if it absorbs water or carbon dioxide, so protect against damp floors and rain ingress. Control dust generation during handling and transfer; use local exhaust ventilation and eye protection. Keep away from food and feedstuffs unless the grade is food grade and stored accordingly.
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11. Toxicological information

The health hazards classified for this substance are listed in section 2, and the corresponding first-aid measures in section 4. Numerical toxicological endpoints are not reproduced here: refer to the producer's safety data sheet for the grade supplied, and to the ECHA and PubChem entries for the substance.

12. Ecological information

Where section 2 or section 14 classifies this substance as hazardous to the aquatic environment, prevent any release to drains, surface water or groundwater and treat aqueous effluent before discharge. Otherwise, refer to the producer's sheet.

13. Disposal considerations

Dispose of the substance and its container through an authorised facility under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 where the waste is scheduled under those Rules, and otherwise as non-hazardous industrial waste, in each case under the conditions of the State Pollution Control Board consent in force at the site. Whether a particular waste stream is scheduled depends on the substance and on what it has been mixed with, so classify the waste before consigning it. Do not reuse empty containers for any other purpose.

14. Transport information

UN number	Not regulated for transport
Class	Not regulated for transport
Packing group	Not regulated for transport
Proper shipping name	Not regulated for transport

15. Regulatory information

Supply in India is subject to the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 where the substance is scheduled, and to any product-specific licensing named on the product page. Classification and labelling follow the GHS as adopted in the jurisdiction of use.

Note: Soda ash is NOT a dangerous good and has no UN number, hazard class or packing group under the UN Model Regulations, ADR, IMDG or IATA — but it IS a GHS-classified substance and must still carry the H319 hazard statement with the 'Warning' signal word and the exclamation-mark pictogram (GHS07) on the package and on the SDS. Do not confuse 'not regulated for transport' with 'not hazardous'. Dense and light soda ash are the same chemical substance with the same CAS number, the same formula and identical hazard, GHS and transport status; they differ only in bulk density, particle size and handling behaviour, so the two grades share one safety data sheet. Note that Tata Chemicals' published soda ash SDS contains errors — it names the chemical as 'Sodium Bicarbonate' and assigns the signal word 'Danger' with a GHS07 pictogram; the correct signal word for the harmonised Eye Irrit. 2 classification is 'Warning', and the correct chemical name is sodium carbonate. Soda ash is frequently confused with sodium bicarbonate (baking soda, CAS 144-55-8) and with caustic soda; soda ash is a much weaker alkali than caustic soda, which is why it is used as a spill neutraliser for acids. Anhydrous Na₂CO₃ is what is described here; the decahydrate 'washing soda' is a different substance with CAS 6132-04-3 and different assay and density figures. 99.2% min is a typical Indian commercial assay; the balance is mainly moisture, sodium chloride and sodium sulphate.

16. Other information

Version	1.0
Date of issue	07 October 2026
Supersedes	No previous version

Regulatory basis as at the date of issue

EU CLP Regulation 1272/2008 as amended, including Annex VI harmonised classifications; UN Model Regulations and the IMDG Code Amendment 42-24, mandatory from 1 January 2026; ADR 2025; and, in India, the Manufacture, Storage and Import of Hazardous Chemical Rules 1989 and the Central Motor Vehicles Rules 1989.

How this sheet was compiled and what governs. This sheet was prepared by Velora Chemicals Private Limited as the supplier, from PubChem, the ECHA CLP inventory including Annex VI harmonised classifications, ILO International Chemical Safety Cards and published producer safety data sheets. Values that could not be confirmed from those sources are shown as "Not available" rather than estimated. **The producer's safety data sheet for the specific grade and lot supplied is the governing document** and is issued with the consignment; where the two differ, the producer's sheet prevails. This sheet carries no warranty of the properties of any particular batch. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.

Sources consulted: https://chemicalsafety.ilo.org/dyn/icsc/showcard.display?p_card_id=1135&p_version=2&p_lang=en;
[https://deca.upc.edu/en/laboratories/latem/security/reactius-quimics/sodium-carbonate-panreac.pdf;](https://deca.upc.edu/en/laboratories/latem/security/reactius-quimics/sodium-carbonate-panreac.pdf)
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