

PRODUCT IDENTIFICATION



Product Name: Soda Ash
CAS Number: 497-19-8
Molecular Formula: CNa_2O_3
Molecular Weight: 105.988 g/mol
Grade: Technical Grade
Purity / Concentration: 100%
Synonyms: Sodium Carbonate, Soda

PRODUCT OVERVIEW

Soda Ash, also known as sodium carbonate, is a high-purity technical grade white crystalline powder essential for industrial chemistry. With an assay of 100.0% and minimal impurities like iron at 3 ppm, this versatile compound serves as a critical raw material for manufacturing, water treatment, and cleaning formulations.

Grade Significance: Technical Grade signifies that this product is manufactured for industrial applications where performance and cost-effectiveness are prioritized over pharmaceutical or food-grade purity standards.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay	%	100.0	99.5	100.5	Titration/Gravimetric
pH	—	8.3	8	8.6	pH Meter
Moisture	%	0.11	0	0.4	Karl Fischer
Heavy Metals As Pb	ppm	1.5	—	5	ICP-MS (as Pb)
Iron	ppm	3	0	10	ICP
Chloride Cl	%	0.0049	0	0.1	ICP
Sulfate (SO_4^{2-})	%	0.021	0	0.2	ICP-MS
Insoluble Matter	%	0.0052	0	0.05	Gravimetric

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline powder	Odor	Odorless
Form	Solid	Boiling Point	Decomposes on heating by CO_2 loss
Melting / Freezing Point	856°C (1573°F)	Specific Gravity	2.532
Solubility	Soluble in water, insoluble in alcohol	Molecular Formula	CNa_2O_3
Molecular Weight	105.988 g/mol	Density (25°C)	2.53 g/mL

APPLICATIONS

1. **Glass Manufacturing** — Soda ash acts as a vital flux in glass production, significantly lowering the melting point of silica to improve energy efficiency and process control.
2. **Water Treatment** — It is utilized as an effective pH adjuster and buffering agent to neutralize acidity and maintain optimal chemical balance in water systems.
3. **Detergent Production** — Serving as a key builder, it enhances the cleaning efficiency of detergent formulations by softening water and removing stubborn stains.
4. **Food Processing** — This product functions as a precise pH regulator and stabilizer to ensure the quality and consistency of various food-grade manufacturing processes.

STORAGE & HANDLING

Soda ash should be stored in a cool, dry, and well-ventilated area to prevent clumping caused by moisture absorption. Because it is classified as a warning for serious eye irritation, proper containment is essential to prevent accidental exposure and ensure workplace safety.

- Store in a cool, dry place away from moisture.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles.
- Avoid contact with acids to prevent exothermic reactions.
- Ensure proper ventilation in storage areas to minimize dust accumulation.
- Compatible with HDPE containers for storage.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 50 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Warning**



Hazard Statements:

- H319: Causes serious eye irritation

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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