Technical Data Sheet

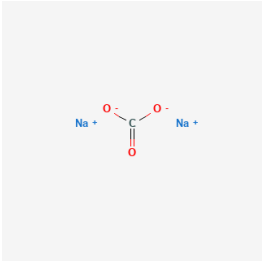
Soda Ash Technical Grade

Technical

Alliance Code	Revised	Revision
soda-ash	2026-10-13	1.4

CAS number

497-19-8



Structure · PubChem

Grade

Technical

Signal word

Warning

Hazards

Irritant / harmful H319

IDENTITY & COMPOSITION

PRODUCT NAME

Soda Ash Technical Grade

ALLIANCE CODE

soda-ash

GRADE

Technical

CONCENTRATION

—

CAS NUMBER

497-19-8 PubChem

FORMULA

Na2CO3 PubChem

MOLECULAR WEIGHT

105.988 PubChem

PRODUCT TYPE

Pure substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Sodium Chloride (NaCl)	1,000 ppm Maximum	—	—	Interpreted
Iron (Fe)	20 ppm Maximum	—	—	Interpreted

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Loss on ignition, 27 - 300 C	max. 0.4 %	—	—	Interpreted
Organic matter (as C)	0.01 % Max	—	—	Interpreted
Screen analysis, U.S. Standard sieves (dense soda ash)	On 30 mesh (>600 micron): 8.0% Maximum cumulative; On 100 mesh (>150 micron): 85.0% Minimum cumulative; Through 200 mesh (<75 micron): 3.0% Maximum through	—	—	Interpreted
Silica (SiO2)	0.03 % Max	—	—	Interpreted
Sodium Carbonate (as Na2CO3)	99.2% Minimum	—	—	Interpreted
Sodium Oxide (Na2O)	58.0% Minimum	—	—	Interpreted
Matter insoluble in water	Max. 0.15% (% Mass, dry basis)	—	ASTM E359	Interpreted
Sodium Sulfate (Na2SO4)	2,000 ppm Maximum	—	—	Interpreted
Volatiles	0.80% Maximum	—	—	Interpreted
+20screen	0.4 max	—	—	Interpreted
+40screen	50 max	—	—	Interpreted
bd lb/ft3	56 lb/ft3 min	—	—	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	White crystalline powder	Adjudicated
Form	Solid	Published reference
Odor	Odorless	Published reference
pH	11.2 - 11.6	Interpreted
Density	2.54 g/cu cm	Published reference
Boiling Point	Decomposes on heating by CO2 loss	Adjudicated
Melting Point	856 °C	Adjudicated
Flash Point	N/A	Published reference
Solubility (water)	Freely soluble in water. Insoluble in ethanol	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated Adjudicated

HAZARD CLASS

Not regulated Adjudicated

PACKING GROUP

Not regulated Adjudicated

PROPER SHIPPING NAME

Not regulated Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD

Warning Adjudicated

H-CODES (HAZARD STATEMENTS)

H319 Adjudicated

P-CODES (PRECAUTIONARY STATEMENTS)

P264, P280, P305+P351+P338, P337+P313

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— no canonical

ACGIH TLV

— no canonical

NIOSH REL

— no canonical

NIOSH IDLH

— no canonical

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Glass manufacturing tatachemicals.com

Chemical intermediate / feedstock for other chemicals tatachemicals.com

Soap and detergent formulations tatachemicals.com

Water treatment tatachemicals.com

Flue gas desulfurization tatachemicals.com

Pulp and paper tatachemicals.com

Water treatment in accordance with AWWA Standard B201 for soda ash (claim made by Tata Chemicals for its dense ash)

tatachemicals.com

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep containers tightly closed in a cool, dry, well-ventilated place away from direct sunlight, acids and metals; protect from moisture (hygroscopic). Avoid raising dust.

Adjudicated

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

Class-level guidance — not product-specific; the SDS controls.

INCOMPATIBILITIES

Acids (violent exothermic reaction releasing carbon dioxide); aluminum and powdered aluminum; zinc and other metals; strong oxidizing agents; fluorine; water and moisture.

Adjudicated

SHELF LIFE

18 months nuroil.com

Stored moisture-free; after the expiry date the product should be re-tested and may be used further if it still complies. (Note: the sentence appears on a Soda Ash Dense data sheet but reads "Soda Ash light" as printed.)

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

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Not regulated for transport.
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Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS

70

REVISION HISTORY

Last reviewed 2026-10-13 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.4	2026-10-13	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. • storage_precautions · canonical change (coa.data_provenance / adjudication) • incompatible_materials · canonical change (coa.data_provenance / adjudication) • conditions_to_avoid · canonical change (coa.data_provenance / adjudication) • hazardous_decomposition_products · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-09-30	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • boilingPoint · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication) • appearance · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-09-28	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. • ghsClassification · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-17	Canonical data re-verified: 7 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). • countryOfOrigin · canonical adjudication / reground (coa.data_provenance) • dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance) • ghsClassification · canonical adjudication / reground (coa.data_provenance) • hazard_h_codes · canonical adjudication / reground (coa.data_provenance) • hazard_p_codes · canonical adjudication / reground (coa.data_provenance) • hsCode · canonical adjudication / reground (coa.data_provenance) • signalWord · canonical adjudication / reground (coa.data_provenance)	canonical_change
1.0	2026-05-20	Initial URL-first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.