Safety Data Sheet · OSHA HCS 2024

Sodium Bicarbonate Technical Grade

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-17	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Sodium Bicarbonate Technical Grade
CAS Number	144-55-8
Chemical Formula	NaHCO3
Molecular Weight	84.01 g/mol
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Sodium hydrogen carbonate; sodium hydrogencarbonate; bicarbonate of soda; baking soda
Recommended Use	Industrial and technical uses: pH and alkalinity adjustment, water treatment, cleaning and deodorizing formulations, buffering, and blasting media.
Restrictions on Use	Technical grade: not for food, feed, pharmaceutical or medical use.

2 Hazard Identification

Signal Word	Not applicable
Hazard Statements	Not classified as hazardous under GHS based on available data.
Precautionary Statements	No specific GHS precautionary statements required.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Sodium Bicarbonate	144-55-8	NaHCO3	99-100% (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes	Rinse with water. Get medical attention if irritation develops or persists.
Skin	Wash with soap and water. Get medical attention if irritation develops.
Inhalation	Move to fresh air if discomfort occurs.
Ingestion	Rinse mouth with water. Get medical attention if you feel unwell.
Most Important Symptoms and Effects	No specific symptoms are expected from the hazards identified in Section 2.
Immediate Medical Attention and Special Treatment	Treat symptomatically. Get medical attention if symptoms develop or persist.

5 Fire-Fighting Measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical, or CO2. Use measures appropriate to local circumstances.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Specific Hazards Arising from the Chemical	Containers may rupture when heated.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Hazardous Combustion Products	Carbon dioxide and water vapor on heating, leaving sodium carbonate. Not combustible.

6 Accidental Release Measures

Personal Precautions	Wear safety glasses and gloves for cleanup. Avoid creating dust.
Environmental Precautions	Avoid releasing large quantities to drains or waterways.
Containment & Cleanup	Sweep or vacuum up, avoiding dust. Collect in a suitable container. Dispose of according to local regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.
Specific Storage Precautions	Keep containers tightly closed in a cool, dry place away from acids. Protect from moisture.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
Other Limits	OSHA: no substance-specific PEL; particulates not otherwise regulated 15 mg/m^3 total dust, 5 mg/m^3 respirable

Engineering Controls	General ventilation is normally adequate.
Eye/Face Protection	Safety glasses are recommended.
Skin Protection	Gloves are recommended for prolonged or repeated contact.
Respiratory Protection	Not normally required.

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

9 Physical & Chemical Properties

Appearance	White crystalline powder
Odor	Odorless
Odor Threshold	No data available
pH	~8.3 (1% aqueous solution)

Melting Point / Freezing Point	Not applicable — decomposes before melting
Boiling Point	Not applicable — decomposes
Flash Point	Not applicable
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Vapor Pressure	Negligible
Vapor Density	No data available
Relative Density	2.20 (water = 1)
Solubility	Soluble in water (about 96 g/L at 20 °C)
Partition Coefficient (n-octanol/water)	Not applicable (inorganic salt)
Auto-ignition Temperature	No data available
Decomposition Temperature	From about 50 °C, releasing carbon dioxide and water and leaving sodium carbonate
Viscosity	No data available
Particle Characteristics	No data available
Form	Solid
Density	2.20 g/cm^3

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat above about 50 °C (releases carbon dioxide and water); moisture; contact with acids.
Incompatible Materials	Acids (react to release carbon dioxide gas, which can build pressure in closed containers); strong oxidizing agents.
Hazardous Decomposition Products	Carbon dioxide and water vapor on heating, leaving sodium carbonate. Not combustible.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	No specific symptoms are expected from the hazards identified in Section 2.
Delayed and Chronic Effects	No delayed or chronic effects identified beyond the classification in Section 2.

Route	Value
LD50 Oral (rat)	4,220 mg/kg (rat)

Carcinogen Classification

Agency	Status
IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12 Ecological Information

Ecotoxicity	Data not available. Avoid release to the environment.
Persistence & Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

EPA RCRA Waste Codes	Not a P- or U-listed waste and not expected to be a characteristic hazardous waste; the generator makes the final determination.

14 Transport Information

Not regulated for transport under US DOT 49 CFR Subchapter C, IMDG, or IATA DGR.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Not listed
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed
CERCLA Reportable Quantity (RQ)	Not a CERCLA hazardous substance (no RQ). Not an EPCRA Section 313 chemical.

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-17
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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