



SODIUM BICARBONATE

Safety Data Sheet

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1. IDENTIFICATION

Product name: Sodium bicarbonate

Synonyms: Baking soda; Bicarbonate of soda; Sodium acid carbonate; Carbonic acid, monosodium salt.

Manufacturer:

Natrium Products, Inc.
58 Pendleton Street
Cortland, NY 13045
USA

Telephone numbers:

General inquiries: (607) 753-9829
Emergencies (US and Canada):
CHEMTREC (Customer Number 724993)
(800) 424-9300 or 703-527-3887 (collect)

Recommended uses:

Food additive; pharmaceutical ingredient; water treatment; raw material for paper and chemical manufacturing; animal feed additive; pH control.

2. HAZARD IDENTIFICATION

There are no appreciable health or environmental effects associated with this material.

Hazard classification: Not classified

Label elements: No applicable labeling

Other potential health effects:

Eyes: Direct contact may cause irritation due to abrasion.

Skin: Not a skin irritant.

Inhalation: No known effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Sodium hydrogen carbonate

Chemical formula: NaHCO₃

Synonyms: Baking soda; Bicarbonate of soda; Sodium acid carbonate; Carbonic acid, monosodium salt.

CAS Number: 144-55-8

Concentration (% by Weight): 100%

4. FIRST AID MEASURES

Eye contact: Irrigate with flowing water immediately and continuously for 15 minutes. Consult a physician if necessary.

Skin contact: Wash off in flowing water or shower. If necessary, consult physician.

Ingestion: Do not induce vomiting. Seek medical attention immediately if overdose is taken.

Note to physician: Large doses, particularly in patients with renal insufficiency, have produced systemic alkalosis and/or expansion in the extra-cellular fluid volume with edema.

Inhalation: Remove to fresh air. Seek medical attention if discomfort persists.

5. FIRE-FIGHTING MEASURES

Product is non-combustible. Thermal decomposition products are carbon dioxide and sodium carbonate (soda ash). Carbon dioxide is an asphyxiant, and soda ash is an irritant.

Protective equipment: Self-contained breathing apparatus is necessary if large quantities are involved.

Extinguishing media: Use extinguishing material that is appropriate for fire in the surrounding area.



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6. ACCIDENTAL RELEASE MEASURES

Sweep up into clean, dry containers for salvage or disposal. Wash away uncontaminated residue with water.

7. HANDLING AND STORAGE

Avoid contact with eyes and skin. Keep separated from acids. Store in a cool, dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not established.

Engineering controls: Provide general and/or local exhaust ventilation to control airborne dust.

Personal Protection:

Eyes & Face: Safety glasses for dusty conditions.

Respiratory: NIOSH approved dust mask.

Miscellaneous: Full cover clothing, general purpose gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White crystalline powder or granules.

Flammability: None.

Upper/lower flammability/explosive limits: Not applicable.

Odor: None.

Odor threshold: Not applicable.

Vapor pressure: Not applicable.

Vapor density: Not applicable.

pH of 0.1 M solution (0.84% w/v): 8.3 @ 25°C

Density: 2.2 g/cm³.

Melting point: Not applicable (thermal decomposition occurs on heating).

Solubility in water: 86 g/L @ 20°C.

Boiling point: Not applicable.

Flash point: Not applicable.

Evaporation rate: Not applicable.

Partition coefficient, n-octanol/water: No data available.

Auto-ignition temperature: Not applicable.

Decomposition temperature: Starts to decompose when heated above 50°C (122°F).

Viscosity: Not applicable.

10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions or polymerization will not occur under normal conditions.

Chemical stability: Stable under recommended handling and storage conditions. (See Section 7.)

Conditions to avoid: Temperatures above 50°C (122°F).

Incompatible materials: Reacts with acids, releasing carbon dioxide.

Hazardous decomposition products: Carbon dioxide and sodium carbonate (soda ash).



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11. TOXICOLOGICAL INFORMATION

Acute Oral: LD₅₀ (rat) > 4000 mg/kg.

Acute Inhalation: LC₅₀ (rat) > 4.74 mg/L.

Eyes: Minimally irritating (rabbit, EPA TSCA 40 CFR 798.4500); Irritating (rabbit, Draize test, dose of 220 mg).

Skin: Slightly irritating (rabbit).

Carcinogenicity: Not listed as a carcinogen or potential carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the U.S. Occupational Safety and Health Administration (OSHA).

12. ECOLOGICAL INFORMATION

Aquatic toxicity:

Fish: LC₅₀ = 7700 mg/L (Rainbow trout, 96-hr. exposure).

Fish: LC₅₀ = 7100 mg/L (Bluegill sunfish, 96-hr. exposure).

Invertebrates: EC₅₀ > 1000 mg/L (*Daphnia magna*, 48-hr. exposure).

Persistence/Bioaccumulation potential: Not expected to persist or bioaccumulate in the environment.

Biodegradation: Not applicable.

Mobility: High potential for movement from soil to groundwater is expected based on aqueous solubility.

13. DISPOSAL CONSIDERATIONS

Not a hazardous material. Dispose in a landfill in accordance with pertinent federal, state and local regulations. Empty containers may be incinerated or discarded as ordinary waste.

14. TRANSPORT INFORMATION

Not regulated by the U.S. Department of Transportation.

15. REGULATORY INFORMATION

CERCLA (40 CFR 302.4): Not a hazardous substance.

RCRA (40 CFR 261): Not a hazardous waste.

TSCA (40 CFR 710): Listed.

OSHA (29 CFR 1910.1200): Not hazardous.

SARA. Title III Sections 302 (40 CFR 355), 313 (40 CFR 372): Not a hazardous or toxic chemical.

European Inventory (EINECS): 205-633-8.

Japanese Inventory (MITI): 1-164.

U.S. Food and Drug Administration: Generally recognized as safe (GRAS) direct food additive (21 CFR 184.1736).

16. OTHER INFORMATION

Maximum use level for drinking water corrosion and scale control: 100mg/L per NSF/ANSI 60 – 2014a.

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