

Material Safety Data Sheet Sodium Bicarbonate

MSDS #: 144-55-8
Revision Date: 2010-09-29
Version 1



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Sodium Bicarbonate
Pure substance/preparation	Substance
Formula	NaHCO ₃
Synonyms	Baking Soda, Bicarbonate of Soda
Recommended use	Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive.
Manufacturer	Emergency telephone number
FMC Wyoming Corporation Alkali Chemicals Division 1735 Market Street Philadelphia, PA 19103	+1 307.872.2452 (Plant - Green River, WY) +1 303.595.9048 (Medical - Call Collect)
	For leak, fire, spill or accident emergencies, call: +1 800.424.9300 (CHEMTREC - U.S.A.) +1 703.527.3887 (CHEMTREC - Collect - All Other Countries)

2. Hazards identification

Emergency Overview

Not classified as hazardous
White crystalline powder

Potential health effects

Acute toxicity No significant health effects anticipated

Chronic Toxicity No known effect.

3. Composition/information on ingredients

Ingredients

Chemical Name	CAS-No	Weight %
Sodium Bicarbonate	144-55-8	100

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4. First aid measures

Eye contact	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Remove person to fresh air. If signs/symptoms continue, get medical attention.
Ingestion	Drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

5. Fire fighting measures

Flammable properties	Noncombustible.
Flash Point	Not combustible
Suitable extinguishing media	Water spray, dry chemical, carbon dioxide (CO ₂), or foam.
Hazardous combustion products	None.
Explosion Data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Specific hazards arising from the chemical	None in particular.

NFPA	Health Hazard 0	Flammability 0	Stability 0	Special Hazards -
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NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

6. Accidental release measures

Personal precautions	Avoid dust formation.
Methods for containment	Material may be recycled when contamination is not a problem.
Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with all applicable national environmental laws and regulations.

7. Handling and storage

Handling	Use air conveying/mechanical systems for bulk transfer to storage. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from heat. Keep away from incompatible products (acids).
Specific use(s)	None known

8. Exposure controls/personal protection

Exposure guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. Local nuisance dust standards apply.
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Occupational exposure controls

Engineering measures Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal protective equipment

General Information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers, These recommendations apply to the product as supplied

Respiratory protection Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH/MSHA, EU CEN or comparable organization to protect against airborne dust.

Eye/face protection Safety glasses with side-shields

Skin and body protection Wear suitable protective clothing. Protective shoes or boots.

Hand protection Protective gloves

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	crystalline powder
Color	white
Physical State	Solid
Odor	odorless
Odor Threshold	not applicable
pH	8.3 (1% solution) @ 25 °C
Melting Point/Range	Decomposes
Freezing point	No information available
Boiling Point/Range	not applicable
Flash Point	Not combustible
Evaporation rate	not applicable
Autoignition Temperature	not applicable
Flammable properties	Noncombustible
Vapor pressure	not applicable
Vapor density	No information available
Density	0.88 g/cm ³ (particle)
Specific Gravity	2.22
Relative density	No information available
Bulk density	66 lb/cu ft
Molecular Weight	84.01
Water solubility	9.0 % @ 20 °C
Percent volatile	No information available
Partition coefficient:	not applicable
Viscosity	No information available
Oxidizing properties	not applicable

10. Stability and reactivity

Stability Stable

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Conditions to avoid Excessive heat
Materials to avoid Except under controlled conditions: Acids
Hazardous decomposition products Reacts with acids to release carbon dioxide gas and heat
Hazardous polymerization Hazardous polymerization does not occur

11. Toxicological information

Acute effects

Remarks This product is approved for use as a food ingredient and is Generally Recognized as Safe (GRAS).

Eye irritation Non-irritating (rabbit)
Skin irritation Non-irritating (rabbit)
 May irritate abraded skin when moisture is present

LD50 Oral 20% slurry 4,300 mg/kg (rat)
 50% slurry: 6,000 mg/kg (rat)
LD50 Dermal No information available
LC50 Inhalation: No information available

Chronic Toxicity

Chronic Toxicity No known effect.

12. Ecological information

Ecotoxicity

Not expected to have significant environmental effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Sodium Bicarbonate	650 mg/L EC50 120 h (Nitzschia linearis)	LC50 8250-9000 mg/L Lepomis macrochirus 96 h		EC50 2350 mg/L 48 h

Persistence and degradability Biodegradability does not pertain to inorganic substances.
Bioaccumulation Does not bioaccumulate.
Mobility Dissociates into ions.

13. Disposal considerations

Waste disposal methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements
Contaminated packaging Dispose of in accordance with local regulations

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14. Transport information

<u>DOT</u>	not regulated
<u>TDG</u>	not regulated
<u>ICAO/IATA</u>	not regulated
<u>IMDG/IMO</u>	not regulated

15. Regulatory information

International Inventories

TSCA Inventory (United States of America)	Complies
DSL (Canada)	Complies
NDSL (Canada)	Complies
EINECS/ELINCS (Europe)	Complies
ENCS (Japan)	Complies
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies
NZIoC (New Zealand)	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

International Regulations

Mexico - Grade No information available

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Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
Non-controlled

6. Other information

HMIS	Health Hazard 0	Flammability 0	Stability 0	Special precautions -
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NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

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Reason for revision: No information available

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End of Material Safety Data Sheet