

Material Safety Data Sheet

Sodium Bicarbonate

MSDS #: 144-55-8
Revision Date: 2013-10-21
Version 0.01



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

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Sodium Bicarbonate
Synonyms	Baking Soda, Bicarbonate of Soda
Formula	NaHCO ₃
Recommended use:	Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive
Manufacturer	Emergency telephone number 1 307 / 872 2452 (Plant - Green River, WY) 1 303 / 595 9048 (Medical - U.S. - 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

Eyes Non-irritating.
Skin Non-irritating to the skin.
Inhalation Inhalation of dust in high concentration may cause irritation of respiratory system.
Ingestion None under normal use conditions.

Chronic Toxicity

No known effect.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

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

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	Not flammable.
Flash Point	Not combustible
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous combustion products	No off odor.
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 -

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 if release of airborne dust is expected.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from heat. Keep away from incompatible products (acids).

8. EXPOSURE CONTROL / 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.
Occupational exposure controls	
Engineering measures	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Respiratory protection	In case of inadequate ventilation wear respiratory protection.

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

Information on basic 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
Flammable properties	Not flammable
Vapor pressure	No information available
Vapor density	Not applicable
Density	0.88 g/cm³ (particle)
Specific Gravity	2.22
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

Decomposition Temperature	No information available
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10. STABILITY AND REACTIVITY

Stability	Stable.
Conditions to avoid	None known
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.**Carcinogenicity** Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH)**Mutagenicity** This product is not recognized as mutagenic by Research Agencies.**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Sodium Bicarbonate (144-55-8)

Active Ingredient(s)	Duration	Species	Value	Units
Sodium bicarbonate	48 h LC50	Culex sp. larvae (mosquito)	2000	mg/L

Persistence and degradability Biodegradability does not pertain to inorganic substances.**Bioaccumulation** Does not bioaccumulate.**Mobility** Dissociates into ions.**Other adverse effects** None known**13. DISPOSAL CONSIDERATIONS****Waste disposal methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with local regulations.**Contaminated packaging** Dispose of in accordance with local regulations.**14. TRANSPORT INFORMATION****DOT** not regulated**TDG** not regulated**ICAO/IATA** not regulated**IMDG/IMO** 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

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

16. 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

Product Certifications

This product meets the chemical testing specifications defined in the Food Chemicals Codex (FCC), 8th Edition.

This product is certified to NSF/ANSI Standard 60 for use in drinking water treatment at the specified maximum use limit. The MUL (maximum use level) for sodium bicarbonate is 100 mg/L under NSF/ANSI Standard 60.

**Revision Date:** 2013-10-21**Reason for revision:** (M)SDS sections updated: 16.**Disclaimer**

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End of Material Safety Data Sheet