

# Material Safety Data Sheet

## Sodium Bicarbonate

MSDS #: 144-55-8  
Revision Date: 2014-01-07  
Version 1.01



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

<b>Product name</b>	<b>Sodium Bicarbonate</b>
<b>Synonyms</b>	Baking Soda, Bicarbonate of Soda
<b>Formula</b>	NaHCO <sub>3</sub>
<b>Recommended use:</b>	Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive
<b>Manufacturer</b>	<b>Emergency telephone number</b>
FMC Wyoming Corporation Alkali Chemicals Division 1735 Market Street Philadelphia, PA 19103 Tel: +1 215 / 299 6000 E-Mail: msdsinfo@fmc.com	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

<b>Eyes</b>	Non-irritating.
<b>Skin</b>	Non-irritating to the skin.
<b>Inhalation</b>	Inhalation of dust in high concentration may cause irritation of respiratory system.
<b>Ingestion</b>	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**

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

**5. FIRE-FIGHTING MEASURES**

<b>Flammable properties</b>	Not flammable.
<b>Flash Point</b>	Not combustible
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Hazardous combustion products</b>	No off odor.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not sensitive.
<b>Sensitivity to Static Discharge</b>	Not sensitive.
<b>Specific hazards arising from the chemical</b>	None in particular.

<b>NFPA</b>	<b>Health Hazard</b> 0	<b>Flammability</b> 0	<b>Stability</b> 0	<b>Special Hazards</b> -
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**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Avoid dust formation.
<b>Methods for containment</b>	Material may be recycled when contamination is not a problem
<b>Methods for cleaning up</b>	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**

<b>Handling</b>	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.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place. Keep away from heat. Keep away from incompatible products (acids).

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

<b>Exposure guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. Local nuisance dust standards apply.
<b>Occupational exposure controls</b>	
<b>Engineering measures</b>	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection.

<b>Eye/face protection</b>	Safety glasses with side-shields
<b>Skin and body protection</b>	Wear suitable protective clothing. Protective shoes or boots.
<b>Hand protection</b>	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

<b>Appearance</b>	crystalline powder
<b>Color</b>	white
<b>Physical state</b>	solid
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not applicable
<b>pH</b>	8.3 (1% solution) @ 25 °C
<b>Melting Point/Range</b>	Decomposes
<b>Freezing point</b>	No information available
<b>Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not combustible
<b>Evaporation rate</b>	Not applicable
<b>Flammable properties</b>	Not flammable
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	Not applicable
<b>Density</b>	0.88 g/cm <sup>3</sup> (particle)
<b>Specific Gravity</b>	2.22
<b>Bulk density</b>	66 lb/cu ft
<b>Molecular Weight</b>	84.01
<b>Water solubility</b>	9.0 % @ 20 °C
<b>Percent volatile</b>	No information available
<b>Partition coefficient</b>	Not applicable
<b>Viscosity</b>	No information available
<b>Decomposition Temperature</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable.
<b>Conditions to avoid</b>	None known
<b>Materials to avoid</b>	Except under controlled conditions: Acids
<b>Hazardous decomposition products</b>	Reacts with acids to release carbon dioxide gas and heat.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute effects

<b>Remarks</b>	This product is approved for use as a food ingredient and is Generally Recognized as Safe (GRAS).
<b>Eye irritation</b>	Non-irritating (rabbit)
<b>Skin irritation</b>	Non-irritating (rabbit) May irritate abraded skin when moisture is present

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**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

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<b>PICCS (Philippines)</b>	Complies
<b>AICS (Australia)</b>	Complies
<b>NZIoC (New Zealand)</b>	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**

<b>Acute Health Hazard</b>	no
<b>Chronic Health Hazard</b>	no
<b>Fire Hazard</b>	no
<b>Sudden Release of Pressure Hazard</b>	no
<b>Reactive Hazard</b>	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:** 2014-01-07  
**Reason for revision:** (M)SDS sections updated: 16.

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**End of Material Safety Data Sheet**