1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium Bicarbonate

Synonyms: Baking Soda, Bicarbonate of Soda

Formula: NaHCO₃

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
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

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Non-irritating.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Non-irritating to the skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Inhalation of dust in high concentration may cause irritation of respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>None under normal use conditions.</td>
</tr>
</tbody>
</table>

Chronic Toxicity: No known effect.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate</td>
<td>144-55-8</td>
<td>100</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Stability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

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.
**Sodium Bicarbonate**

**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

### 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
Sodium Bicarbonate

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
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

<table>
<thead>
<tr>
<th>Sodium Bicarbonate (144-55-8)</th>
<th>Duration</th>
<th>Species</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bicarbonate</td>
<td>48 h LC50</td>
<td>Culex sp. larvae (mosquito)</td>
<td>2000</td>
<td>mg/L</td>
</tr>
</tbody>
</table>

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
Sodium Bicarbonate

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
### NSPA/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 limit) 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.

### Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

### Prepared By

FMC Corporation

© 2013 FMC Corporation. All Rights Reserved.

End of Material Safety Data Sheet