Sodium Bicarbonate - Sorbent Treated

Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 06/01/2016       Date of issue: 06/01/2016       Supersedes Date: 03/09/2012
Version: 1.0

SECTION 1: IDENTIFICATION
Product Identifier
Product Form: Substance
Product Name: Sodium Bicarbonate - Sorbent Treated
CAS No: 144-55-8
Formula: NaHCO₃
Synonyms: Baking Soda
Intended Use of the Product
Flue gas desulfurization.

Name, Address, and Telephone of the Responsible Party
Company
Church & Dwight
500 Charles Ewing Blvd
Ewing Township, NJ 08628
T 1-800-524-1328
www.churchdewight.com

Emergency Telephone Number
Emergency Number : For Medical Emergency: 1-888-234-1828, For Chemical Emergency: 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION
Classification of the Substance or Mixture
Classification (GHS-US) Not classified
Label Elements
GHS-US Labeling No labeling applicable
Other Hazards Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Prolonged contact with dust can produce mechanical irritation.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
Substances
Name : Sodium Bicarbonate - Sorbent Treated
CAS No: 144-55-8

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bicarbonate</td>
<td>(CAS No) 144-55-8</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES
Description of First Aid Measures
General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: When symptoms occur: go into open air and ventilate suspected area.

Skin Contact: Brush off loose particles from skin. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention if a large amount is swallowed.

Most Important Symptoms and Effects Both Acute and Delayed
General: None expected under normal conditions of use.

Inhalation: Prolonged inhalation of dust may cause respiratory irritation.

Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation.
Eye Contact: Contact may cause irritation due to mechanical abrasion.
Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.
Chronic Symptoms: None expected under normal conditions of use.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**
If exposed or concerned, get medical advice and attention.

### SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media**
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media: For surrounding fire: Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**
Fire Hazard: NOT FLAMMABLE. Under fire conditions, hazardous fumes will be present.
Explosion Hazard: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

**Advice for Firefighters**
Precautionary Measures Fire: Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Firefighting Instructions: Exercise caution when fighting any chemical fire.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sodium oxides.

**Reference to Other Sections**
Refer to section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**
General Measures: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust or fumes. Avoid skin and eye contact.

**For Non-Emergency Personnel**
Protective Equipment: Use appropriate personal protection equipment (PPE).

**For Emergency Personnel**
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Ventilate area.

**Environmental Precautions**
Prevent entry to sewers and public waters. Avoid release to the environment.

**Methods and Material for Containment and Cleaning Up**
For Containment: Contain and collect as any solid.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Avoid generation of dust during clean-up of spills. Keep in suitable, closed containers for disposal. Contact competent authorities after a spill.

**Reference to Other Sections**
See heading 8, Exposure Controls and Personal Protection.

### SECTION 7: HANDLING AND STORAGE

**Precautions for Safe Handling**
Additional Hazards When Processed: When heated, material emits irritating fumes.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

**Conditions for Safe Storage, Including Any Incompatibilities**
Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.
Storage Temperature: < 65 °C (150 °F)
Specific End Use(s): Flue gas desulfurization.
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

<table>
<thead>
<tr>
<th>Particulates not otherwise classified (PNOC)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA ACGIH</strong></td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³ Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ Total Dust</td>
</tr>
<tr>
<td><strong>USA OSHA</strong></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>15 mg/m³ Total Dust</td>
</tr>
<tr>
<td><strong>Alberta</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (total)</td>
</tr>
<tr>
<td><strong>British Columbia</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (total dust)</td>
</tr>
<tr>
<td><strong>Manitoba</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable particles, recommended)</td>
</tr>
<tr>
<td><strong>New Brunswick</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³ (particulate matter containing no Asbestos and &lt;1% Crystalline silica, respirable fraction)</td>
</tr>
<tr>
<td><strong>Newfoundland &amp; Labrador</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable particles, recommended)</td>
</tr>
<tr>
<td><strong>Nova Scotia</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable particles, recommended)</td>
</tr>
<tr>
<td><strong>Nunavut</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (respirable mass)</td>
</tr>
<tr>
<td><strong>Northwest Territories</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (respirable mass)</td>
</tr>
<tr>
<td><strong>Ontario</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable)</td>
</tr>
<tr>
<td><strong>Prince Edward Island</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (inhalable particles, recommended)</td>
</tr>
<tr>
<td><strong>Québec</strong></td>
<td>VEMP (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (including dust, inert or nuisance particulates; containing no Asbestos and &lt;1% Crystalline silica-total dust)</td>
</tr>
<tr>
<td><strong>Saskatchewan</strong></td>
<td>OEL STEL (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>20 mg/m³ (insoluble or poorly soluble-inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td>6 mg/m³ (insoluble or poorly soluble-respirable fraction)</td>
</tr>
<tr>
<td><strong>Saskatchewan</strong></td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>10 mg/m³ (insoluble or poorly soluble-inhalable fraction)</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³ (insoluble or poorly soluble-respirable fraction)</td>
</tr>
</tbody>
</table>

### Exposure Controls

**Appropriate Engineering Controls:** For occupational/workplace settings: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** For occupational or bulk quantities: Gloves. Safety glasses. Dust formation: dust mask.

**Materials for Protective Clothing:** For occupational or bulk quantities: Chemically resistant materials and fabrics.

**Hand Protection:** For occupational or bulk quantities: Wear chemically resistant protective gloves.

**Eye Protection:** For occupational or bulk quantities: Chemical goggles or safety glasses.

**Respiratory Protection:** Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

- **Physical State:** Solid
- **Appearance:** White, crystalline powder
- **Odor:** None
- **Odor Threshold:** Not available
- **pH:** 8.2 (1% Solution)
- **Evaporation Rate:** Not available
- **Melting Point:** Not available
- **Freezing Point:** Not available
- **Boiling Point:** Not available
- **Flash Point:** Not available
- **Auto-ignition Temperature:** Not available
Sodium Bicarbonate - Sorbent Treated

Safety Data Sheet

Decomposition Temperature: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammable Limit: Not available
Vapor Pressure: Not available
Relative Vapor Density at 20 °C: Not available
Specific gravity / density: 62 lb/ft³
Specific Gravity: Not available
Solubility: Water: 8.6 g/100ml @ 20 °C (68 °F)
Partition Coefficient: N-octanol/water: Not available
Viscosity: Not available

Explosion Data – Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Decomposes slowly on exposure to water (moisture).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Exposure to moisture or moist air. Temperatures above 150°F (65 °C).
Hazardous Decomposition Products: None known. At high temperature may liberate toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified
LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Sodium Bicarbonate - Sorbent Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>LC50 Inhalation Rat</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Not classified [pH: 8.2 (1% Solution)]
Serious Eye Damage/Irritation: Not classified [pH: 8.2 (1% Solution)]
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not classified
Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged inhalation of dust may cause respiratory irritation.
Symptoms/Injuries After Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation.
Symptoms/Injuries After Eye Contact: Contact may cause irritation due to mechanical abrasion.
Symptoms/Injuries After Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.
Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No additional information available

<table>
<thead>
<tr>
<th>Sodium Bicarbonate - Sorbent Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>LC 50 Fish 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium bicarbonate (144-55-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
</tbody>
</table>
Persistence and Degradability: Not established
Bioaccumulative Potential: Not established
Mobility in Soil: Not available

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION
In Accordance with DOT: Not regulated for transport
In Accordance with IMDG: Not regulated for transport
In Accordance with IATA: Not regulated for transport
In Accordance with TDG: Not regulated for transport

SECTION 15: REGULATORY INFORMATION
US Federal & International Regulations
Sodium Bicarbonate (144-55-8)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECS (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations
Neither this product nor its chemical components appear on any US state lists.

Canadian Regulations
Sodium Bicarbonate - Sorbent Treated
Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification: Uncontrolled product according to WHMIS classification criteria
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION
Revision Date: 06/01/2016
Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document
Church & Dwight
500 Charles Ewing Blvd
Ewing Township, NJ 08628
T 1-800-524-1328

This Product Safety Data Sheet is offered solely for your information, consideration and investigation. Church & Dwight Co., Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of data contained herein. Church & Dwight Co., Inc. urges persons receiving this information to make their own determination as to the information suitability for their particular application.