

# CHURCH & DWIGHT CO., INC.

CONSUMER PRODUCTS • SPECIALTY PRODUCTS



## MATERIAL SAFETY DATA SHEET

MSDS NUMBER: MSDS-960

ISSUE DATE: 09/17/02

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name

SODIUM BICARBONATE  
(BAKING SODA)

Church & Dwight Co., Inc.  
469 N. Harrison Street  
Princeton, NJ 08543

Information Phone:  
1-609-683-5900 (USA)

Medical Emergency Phone:  
1-888-234-1828

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredient (% by Weight)

Sodium Bicarbonate 100%

CAS Number

144-55-8

Not hazardous under OSHA Standard 29 CFR 1910.1200.  
Not a WHMIS controlled substance.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

White crystalline powder; no odor.  
Not a fire hazard.  
No significant health or environmental effects associated with this material.

HMIS Rating

Health	0
Fire	0
Reactivity	0

Potential Health Effects

EYE: Not an eye irritant.

SKIN CONTACT: Not a skin irritant.

INGESTION: Material is practically non-toxic. Small amounts (1-2 tablespoonfuls) swallowed during normal handling operations are not likely to cause injury as long as the stomach is not overly full; swallowing larger amounts may cause injury (see Note in Section IV).

INHALATION: None known.

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**SUBCHRONIC EFFECTS/CARCINOGENICITY:** Based on published studies on its effects in animals and humans, sodium bicarbonate is not teratogenic or genotoxic. Only known subchronic effect is that of a marked systemic alkalosis. Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH or NIOSH.

### 4. FIRST AID MEASURES

**EYES:** Check for and remove contacts. Flood eyes with clean flowing water, low pressure and luke warm (not hot) if possible, occasionally lifting eyelids.

**INGESTION:** If large amounts of this material are swallowed, do not induce vomiting. Administer water if person is conscious. Never give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

### 5. FIRE FIGHTING MEASURES

**FLAMMABLE PROPERTIES**

**FLASHPOINT:** Not combustible

**METHOD USED:** Not applicable

**FLAMMABLE LIMITS**

**LFL:** Not applicable

**UFL:** Not applicable

**EXTINGUISHING MEDIA:** Non-combustible material. Use extinguishing media appropriate for surrounding fire.

**FIRE-FIGHTING INSTRUCTIONS:** Carbon Dioxide may be generated making necessary the use of a self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear). Carbon dioxide is an asphyxiant at levels over 5% w/w. Sodium oxide, another thermal decomposition product existing at temperatures above 1564°F is a respiratory, eye, and skin irritant. Avoid inhalation, eye and skin contact with sodium oxide dusts.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known.

### 6. ACCIDENTAL RELEASE MEASURES

Scoop up into dry, clean containers. Wash away uncontaminated residue with water.

### 7. HANDLING AND STORAGE

Store in cool, dry areas and away from incompatible substances (see Section 10).

Sodium Bicarbonate reacts with acids to yield carbon dioxide gas which can accumulate in confined spaces. Do not enter confined spaces until they have been well ventilated and carbon dioxide and oxygen levels have been determined to be safe.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Dust mask required if total dust level exceeds 10 mg/m<sup>3</sup>.

PROTECTIVE GLOVES: General purpose for handling dry product. Impervious gloves when working with solutions.

EYE PROTECTION: Safety glasses when handling bulk material or when dusts are generated.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Full cover clothing. Apron where splashing may occur when working with solutions.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White crystalline powder.

ODOR: None.

PHYSICAL STATE: Solid

pH AS IS: Not Applicable

pH (1% SOLN. w/v): 8.2

VAPOR PRESSURE: Not applicable.

VAPOR DENSITY: Not applicable.

BOILING POINT: Not applicable.

FREEZING/MELTING POINT: Not applicable.

SOLUBILITY IN WATER: 8.6 g/100 ml @ 20°C.

BULK DENSITY (g/cc): 62 lb/Ft<sup>3</sup>

% VOLATILE: Not applicable.

VOLATILE ORGANIC COMPOUNDS: Not applicable.

MOLECULAR WEIGHT: 84.02

### 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: Temperatures above 65°C (150°F).

INCOMPATIBILITY WITH OTHER MATERIALS: Reacts with acids to yield carbon dioxide. Also may yield free caustic in presence of lime dust (CaO) and moisture (i.e., water, perspiration).

HAZARDOUS DECOMPOSITION PRODUCTS: Heating above 100°C may cause dangerous levels of carbon dioxide gas to be present in confined spaces. Yields sodium oxide if exposed to temperatures above 850°C. Avoid inhalation, eye and skin contact with sodium oxide.

HAZARDOUS POLYMERIZATION: Not applicable.

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### 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: The material was minimally irritating to unwashed eyes and practically non-irritating to washed eyes (rabbits).

SKIN EFFECTS: Not a skin irritant or dermally toxic. Not a contact sensitizer.

ACUTE ORAL EFFECTS: Acute Oral-rat LD<sub>50</sub> = 7.3 g/kg.

ACUTE INHALATION: LC<sub>50</sub> (rat) > 4.74 mg/l.

### 12. ECOTOXICOLOGICAL INFORMATION

AQUATIC TOXICITY:

Daphnids: EC<sub>50</sub> = 4100 mg/l.

Bluegill: LC<sub>50</sub> = 7100 mg/l.

Rainbow Trout: LC<sub>50</sub> = 7700 mg/l.

PERSISTENCE: This product is not expected to persist in the environment.

BIOACCUMULATION: This product is not expected to bioaccumulate.

### 13. DISPOSAL CONSIDERATIONS

Bury in a secured landfill in accordance with all local, state and federal environmental regulations. Empty containers may be incinerated or discarded as general trash.

### 14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Not regulated

TECHNICAL SHIPPING NAME: Sodium Bicarbonate

D.O.T. HAZARD CLASS: None

U.N./N.A. NUMBER: None

HAZARDOUS SUBSTANCE/RQ: None

D.O.T. LABEL: None

### 15. REGULATORY INFORMATION

CLEAN AIR ACT SECTION 611: Material neither contains nor is it manufactured with ozone depleting substances (ODS).

FEDERAL WATER POLLUTION CONTROL ACT (40 CFR 401.15): Material contains no intentionally added or detectable (contaminant) levels of EPA priority toxic pollutants.

FOOD AND DRUG ADMINISTRATION: Generally Recognized As Safe (GRAS) direct food additive (21 CFR 184.1736).

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US DEPARTMENT OF AGRICULTURE: List of Proprietary Substances - Permitted Use Codes 3A, J1, A1, G1, and L1.

CERCLA REPORTABLE QUANTITY: None

OSHA: Not hazardous under 29 CFR 1910.1200

RCRA: Not a hazardous material or a hazardous waste by listing or characteristic.

SARA TITLE III:

Section 302, Extremely Hazardous Substances: None

Section 311/312, Hazardous Categories: Non-hazardous

Section 313, Toxic Chemicals: None

Sodium Bicarbonate is reported in the EPA TSCA Inventory List.

Contains no VOCs.

NATIONAL STOCKING NUMBER: 6810002646618, Contract No. DLA 40086C1831

NSF STANDARD 60: Corrosion and Scale Control in Potable Water. Max use 200 mg/l.

CANADA-DSL

EUROPEAN INVENTORY (EINECS): 205-633-8

JAPANESE INVENTORY (MITI): 1-164

AUSTRALIAN INVENTORY (AICS): Carbonic acid, monosodium salt.

### 16. OTHER INFORMATION

SUPERSEDES DATE: 07/02/02

REASON FOR REVISION: Conversion to a 16 Section Format and added Ecotoxicological information.

For additional non-emergency health, safety and environmental information telephone 609.279.7705 or write to:

Church & Dwight Co. Inc.  
R & D Technical Regulatory Affairs  
469 North Harrison Street  
Princeton, New Jersey 08543

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