

MATERIAL SAFETY DATA SHEET

Sodium Bicarbonate



MSDS Ref. No: 144-55-8
Version: US/Canada
Date Approved: 08/01/1997
Revision No: 1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Bicarbonate

SYNONYM(s): Baking Soda, Bicarbonate of Soda

GENERAL USE: Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, feed additive.

This chemical is certified to ANSI/NSF Standard 60, Drinking Water Chemicals-Health Effects. The maximum dosage level for this chemical is 100 mg/L.

MANUFACTURER

FMC Wyoming Corporation
Alkali Chemicals Division
1735 Market Street
Philadelphia, PA 19103
General Information: 215-299-6000

Emergency Telephone Numbers:

CHEMTREC (800) 424-9300
Emergency Phone (303) 595-9048
(Medical - call collect)
Emergency Phone (307) 875-2580
(Wyoming, IL - call collect)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt. %</u>
Sodium Bicarbonate	144-55-8	100

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: White, granular solid. Product is non-combustible. Reacts with acids to release carbon dioxide gas and heat.

POTENTIAL HEALTH EFFECTS: No significant health effects anticipated.

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

NOTES TO MEDICAL DOCTOR: Internal toxicity is low. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Non-combustible

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA: Water, water fog, carbon dioxide (CO₂), dry chemical

HAZARDOUS COMBUSTION PRODUCTS: None

EXPLOSION HAZARDS: None

FIRE FIGHTING PROCEDURES: None

SENSITIVITY TO STATIC DISCHARGE: None

SENSITIVITY TO IMPACT: None

HAZARDOUS DECOMPOSITION PRODUCTS: None

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Sweep up as much as possible for salvage or disposal. Wash away residue with water.

7. HANDLING AND STORAGE

HANDLING: Use air conveying/mechanical systems for bulk transfer to storage. For manual handling of bulk transfer use mechanical ventilation to remove airborne dust from railcar, ship or truck. Use approved respiratory protection when ventilation systems are not available. Selection of respirators is based on the dust cloud generated.

STORAGE: Store in a cool dry area, away from acids.

COMMENTS: Use general room dilution or local exhaust ventilation when excessive dust is expected in the work environment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Minimize eye and skin contact by using appropriate

protective equipment. Use local or general room ventilation to control airborne dust that may be generated into the work environment.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical goggles

RESPIRATORY: Wear MSHA-NIOSH approved dust respirator if excessive visible dust levels are expected.

PROTECTIVE CLOTHING: General purpose gloves. Full cover clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless

APPEARANCE: White, granular solid.

pH: (1% solution): 8.3

PERCENT VOLATILE: Not available

VAPOR PRESSURE: Not available

VAPOR DENSITY: (Air = 1): Not applicable

BOILING POINT: Not applicable

MELTING POINT: Decomposes

SOLUBILITY IN WATER: % by wt. @ 20°C (68°F): 9.0

EVAPORATION RATE: (Butyl Acetate = 1) Not applicable

DENSITY: 0.88 g/mL

SPECIFIC GRAVITY: (H₂O = 1) 2.20

COEFF. OIL/WATER: Not available

ODOR THRESHOLD: Not applicable

OXIDIZING PROPERTIES: Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Contact with acids except under controlled conditions.

STABILITY: Stable

POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: None

INCOMPATIBLE MATERIALS: Reacts with acids to release carbon dioxide gas and heat.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Non-irritating (rabbit) J. Amer. Coll. Toxicol. 1987

SKIN EFFECTS: Non-irritating (rabbit) J. Amer. Coll. Toxicol. 1987

DERMAL LD₅₀: No data available for the product.

ORAL LD₅₀: 4300 mg/kg (rat) (20% slurry)

6000 mg/kg (rat) (50% slurry)

Gosselin, Smith & Hodge, Clinical Tox. of Comm. Products, 1984

INHALATION LC₅₀: No data available for the product.

TARGET ORGANS: None

ACUTE EFFECTS FROM OVEREXPOSURE: Sodium bicarbonate is a GRAS (Generally Recognized As Safe) food ingredient. No significant toxicity is expected.

CHRONIC EFFECTS FROM OVEREXPOSURE: Administration of large doses of sodium bicarbonate to patients with renal insufficiency can produce systemic alkalosis.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: (ACGIH) Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: 48 hr LC50 = 2000 mg/L (Culex sp. larvae or mosquito)

CHEMICAL FATE INFORMATION: No data available for the product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: If material cannot be salvaged, an acceptable method is to dispose of uncontaminated product into a secured landfill in accordance with all local, state and federal environmental regulations. Empty containers may be incinerated or discarded as general trash.

14. TRANSPORT INFORMATION

U.S. DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated

PRIMARY HAZARD CLASS/DIVISION: Not applicable

UN/NA NUMBER: None

PLACARDS: Not applicable

LABEL: Not applicable

OTHER SHIPPING INFORMATION:

DOT Marking: Not applicable

Hazardous Substance/RQ: Not applicable

49 STCC Number: Not applicable

SPECIAL SHIPPING NOTES: IMDG: Not regulated

IATA: Not regulated

15. REGULATORY INFORMATION

UNITED STATES

**SARA TITLE III (SUPERFUND AMENDMENTS AND
REAUTHORIZATION ACT)**

SECTION 311 HAZARD CATEGORY (40 CFR 370): Not applicable

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): Not listed

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS
SUBSTANCES (40 CFR 355):** Not listed

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE
COMPENSATION AND LIABILITY ACT)**

CERCLA REGULATORY (40 CFR 302.4): Not applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS (40 CFR 710): Listed

CANADA

**WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION
SYSTEM):** Product Identification No.: None

Hazard Classification: None

Ingredient Disclosure List: Not listed

16. OTHER INFORMATION

HMIS RATING

HEALTH:	0
FLAMMABILITY	0
REACTIVITY:	0
PROTECTION:	E

NFPA RATING

HEALTH:	0
FLAMMABILITY	0
REACTIVITY:	0
SPECIAL:	None

Key

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

HMIS RATINGS NOTES:

Protection = E (Safety glasses, gloves, dust respirator)

The contents and format of this MSDS are in accordance with OSHA Hazard Communication Standard and Canada's Workplace Hazardous Information System (WHMIS).

Section(s) Revised : New Format

National Fire Protection Association (NFPA)

Hazardous Materials Identification System (HMIS)