

MATERIAL SAFETY DATA SHEET

Sodium Carbonate, Anhydrous



MSDS Ref. No: 497-19-8
Version: US/Canada
Date Approved: 04/13/2001
Revision No: 3

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Carbonate, Anhydrous

SYNONYM(s): Soda Ash, Sodium Carbonate Anhydrous

GENERAL USE: Glass manufacture, detergent manufacture, sodium chemicals and carbonate chemicals manufacture, pulp and paper, brine treatment, water hardness removal, pH adjustment in water or waste water, flue gas desulfurization, coal treatment, ion exchange resin regeneration.

This chemical is certified to ANSI/NSF Standard 60, Drinking Water Chemicals-Health Effects. The maximum dosage level for this chemical is 150 mg/L.

MANUFACTURER

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

Emergency Telephone Numbers:

CHEMTREC (U.S.): (800) 424-9300
Emergency Phone (303)595-9048
(Medical - call collect)
Emergency Phone (307) 875-2580 (Green River, WY-call collect)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS#</u>	<u>Wt. %</u>
Sodium carbonate	497-19-8	99.8

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: White, granular solid. Product is non-combustible. Reacts with acids to release carbon dioxide gas and heat. Irritating to the eyes. Continuous contact may irritate skin.

POTENTIAL HEALTH EFFECTS: Direct contact with the product causes irritation of the eyes and continuous contact may cause skin irritation (red, dry, cracked skin). Excessive levels of airborne dust may irritate the mucous membranes and upper respiratory tract.

4. FIRST AID MEASURES

EYES: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

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

INGESTION: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

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

NOTES TO MEDICAL DOCTOR: While internal toxicity is low, irritant effects of high concentrations may produce corneal opacities, and vesicular skin reactions in humans with abraded skin only. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: Not applicable

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

HAZARDOUS COMBUSTION PRODUCTS: Fumes of sodium oxide.

FIRE / EXPLOSION HAZARDS: Not applicable

FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus.

AUTOIGNITION TEMPERATURE: Not applicable

PROPERTIES CONTRIBUTING TO FLAMMABILITY: Not applicable

FLASH POINT: Non-combustible

SENSITIVITY TO STATIC DISCHARGE: None

SENSITIVITY TO IMPACT: None

HAZARDOUS DECOMPOSITION PRODUCTS: Heated to decomposition, it emits fumes of sodium oxide.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Sweep up and recycle into process if contamination does not present a problem. Use appropriate protective equipment if dust is generated or contact with eyes or skin is expected. Flush residues and liquid to holding area for neutralization before discharge.

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: Provide general mechanical and/or local exhaust ventilation to prevent release of airborne dust into the work environment. Approved respiratory protection should be used when airborne dust is expected to be released.

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: Use cup type chemical goggles.

RESPIRATORY: Use approved dust respirator for low levels of airborne dust. High concentrations may require air supplied systems.

PROTECTIVE CLOTHING: Use impervious gloves to prevent skin contact, arm protectors and aprons. If clothing becomes contaminated, remove and launder before reuse. Industrial safety shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless

APPEARANCE: White, granular solid.

pH: (1% solution): 11.4

PERCENT VOLATILE: Not applicable

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not Applicable

BOILING POINT: Decomposes

FREEZING POINT: 851°C (1564°F)

SOLUBILITY IN WATER: 33.2 % maximum

EVAPORATION RATE: (Butyl Acetate = 1) Not applicable

DENSITY: (g/ml) Dense Grades = 0.86 - 1.12; Light Grades = 0.70 - 0.90

SPECIFIC GRAVITY: 2.509 (water = 1)

COEFF. OIL/WATER: Not applicable

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 with release of large volumes of carbon dioxide gas and heat.

COMMENTS: Materials to Avoid : Aluminum powder, acids, fluorine, molten lithium

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Severe irritant (rabbit) [Toxicology 23:281 (1982)]

SKIN EFFECTS: Non-irritating to intact skin. Minor irritation may occur on abraded skin.
[Toxicol. Appl. Pharmacol. 31:481 (1975)]

DERMAL LD₅₀: No data available for the product.

ORAL LD₅₀: 4090 mg/kg (rat) [RTECS 1986]

INHALATION LC₅₀: 2.3 mg/L (rat, 2 hr) [Environ. Res. 31:138 (1983)]

SENSITIZATION: Non-sensitizing (humans, 0.25% sodium carbonate) [Toxicol. Appl. Pharmacol. 31:481 (1975)]

TARGET ORGANS: Eyes

ACUTE EFFECTS FROM OVEREXPOSURE: May cause severe irritation of the eyes, including corneal opacities. Dusts and mists may be irritating to the skin, mucous membranes and upper respiratory tract.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the product.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: (ACGIH) Not listed

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Daphnia Magna 96 hr LC50 = 265-565 mg/L
Bluegill Sunfish 96 hr LC50 = 300 - 320 mg/L

CHEMICAL FATE INFORMATION: Biodegradability does not apply to inorganic substances.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Salvage as much material as possible and return to process if contamination does not present a problem. Dispose in an accepted landfill in accordance with accepted governmental regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

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)

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

SECTION 311 HAZARD CATEGORY (40 CFR 370):

Immediate (Acute) Health Hazard

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):

10000 lbs.

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):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 (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Product Identification Number: Not applicable

Hazard Classification: Toxic, Class D, Div. 2, Subdiv. B

Ingredient Disclosure List: Listed

16. OTHER INFORMATION

REVISION SUMMARY Revision #: 3

This MSDS replaces the September 10, 1998 MSDS. Any changes in information are as follows:

In Section 9

(Group Field) for Density

In Section 16

Section 16 Footnotes

HMIS RATING

HEALTH:	2
FLAMMABILITY	0
REACTIVITY:	0
PROTECTION:	J

NFPA RATING

HEALTH:	2
FLAMMABILITY	0
REACTIVITY:	0
SPECIAL:	None

Key

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

HMIS RATINGS NOTES:

Protection = J (Safety goggles, gloves, apron & combination dust & vapor respirator)

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

National Fire Protection Association (NFPA)

Hazardous Materials Identification System (HMIS)