

MATERIAL SAFETY DATA SHEET**I - PRODUCT IDENTIFICATION**

Product: Sodium Carbonate
Synonyms: Disodium Carbonate, Soda Ash, Carbonic Acid, Disodium Salt, pH Plus
Formula: Na_2CO_3

II - TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Not regulated

Emergency Telephone Number: Chemtrec 800-424-9300

III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

| <u>Chemical or Common Name</u> | <u>Percent</u> | <u>CAS Number</u> | <u>OSHA Hazard</u> |
|--------------------------------|----------------|-------------------|--------------------|
| Sodium Carbonate | 100 | 497-19-8 | Yes |

IV - PHYSICAL/CHEMICAL CHARACTERISTICS

Odor: odorless
Appearance: white granules
Total acidity: 11.3 at 1 wt/wt%
Physical state: solid
Solubility in Water: soluble
7 wt/wt% at 25°C (77°F)
Vapor Density (Air=1): not available
Molecular Weight: 105.99
Specific Gravity (H₂O=1): 2.53 at 20°C (68°F)
Boiling Point (@ 760 mm Hg): not available
Melting Point Range: 851°C (1564°F)

V - FIRE AND EXPLOSION HAZARD DATA

Flash Point:

N/A

Extinguishing Media:

Not combustible. Use extinguishing method suitable for surrounding fire

Special Fire-fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike area to prevent runoff and

contamination of water sources. Dispose of fire control water later
Unusual Explosion Hazards:
Not combustible

VI - REACTIVITY DATA

Stability:

Unstable Stable

Conditions to Avoid:

Extreme heat

Incompatibility:

Aluminum, fluorine, humid air, moisture, sulfuric acid, acids, magnesium, phosphorus pentoxide

Decomposition Temperature Range:

400°C (752°F)

Hazardous Decomposition or By-Products:

Carbon dioxide

Hazardous Polymerization:

May Occur Will Not Occur

VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Evacuation Procedures and Safety:

Ventilate closed spaces before entering. Wear appropriate protective gear for situation

Steps To Be Taken In Case Material Is Spilled Or Released:

Scrape up and place in appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. Clean up residual material by washing area with water. Avoid creation of dusty conditions

Environmental and Regulatory Reporting:

Don not flush to drain. If spilled on the ground, the affected area should be scraped clean placed in an appropriate container for disposal. Prevent material from entering public sewer systems or any waterways. Large spills should be handled according to a predetermined plan

Waste Disposal Method:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in the MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material

Container Handling and Disposal:

Rinse containers before disposal
EPA waste hazard – no

Precautions to Be Taken in Handling and Storage:

Minimum/Maximum Storage Temperature:

N/A

Handling:

Do not get in eyes. Do not breathe dusts. Avoid direct or prolonged contact with skin.

Storage:

Store in an area that is cool, dry, well-ventilated

VIII - HEALTH HAZARD DATA

Warning Statement:

WARNING: CAUSES EYE IRRITATION. MAY CAUSE SIN IRRITATION.

NFPA-HMIS Ratings:

Health: 2

Flammability: 0

Reactivity: 0

Medical Conditions Aggravated by Exposure:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease

Effects of Acute Exposure to Material:

Ingestion: low acute oral toxicity. May cause nausea, vomiting, diarrhea, irritation, corrosion

Inhalation: may cause upper respiratory tract irritation. Lung irritation

Skin Contact: may cause redness, swelling

Eye Contact: causes irritation

Chronic Effects:

This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens

Emergency and First Aid Procedures:

Ingestion: if victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical

Inhalation: remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR. Seek immediate medical attention

Skin Contact: in case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical

attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before reuse

Eye Contact: hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention

Note to Physician: all treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred

IX - CONTROL MEASURES

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers

Exposure Guidelines:

Exposure limits represent regulated or recommended worker breathing zone concentrations measure by validated sampling and analytical methods, meeting OSHA requirements. The following limits (AGGIH, OSHA and other) apply to this material, where, if indicated S = skin and C = ceiling limit

Particulates not otherwise regulated respirable fraction

| | Notes | TWA | STEL |
|------|-------|---------------------|------|
| OSHA | | 5 mg/m ³ | |

Exposure Control/Personal Protection:

Engineering: where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures

Respiratory: when respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard (29 CFR 1910.134) and/or ANSI Z88.2 recommendations

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by OSHA/ANSI:

Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against dust, mists and fumes

Ventilation:

Skin:

Eye: eye and face protection requirements will vary dependent upon

work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material

Hygiene: personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

1. do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in area where this material is stored
2. wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet
3. wash exposed skin promptly to remove accidental splashed or contact with this material

X - TOXICOLOGICAL INFORMATION

Acute Eye Irritation:

Eye – eye irritation, 50 mg rabbit
Severely irritating

Acute Skin Irritation:

Skin – skin irritation, rabbit
Mildly irritating

Acute Dermal Toxicity:

No test data found for product

Acute Respiratory Irritation:

No test data found for product

Acute Inhalation Toxicity:

LC50 – lethal concentration. 50% of test species, 2300 mg/m³/m³/2hr, rat

Acute Oral Toxicity:

LD50 – lethal dose. 50% of test species, 4090 mg/kg, rat

Chronic Toxicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be “probable” or “suspected” human carcinogens

No additional test data found for product

XI – ECOLOGICAL INFORMATION

Ecotoxicological Information:

No data found for product

Chemical Fate Information:

No data found for product

XII – REGULATORY INFORMATION

Federal Regulations:

TSCA Inventory Status:

All ingredients of this product are listed on the TSCA Inventory.

SARA Title III Hazards Classes:

Fire Hazard – no

Reactive Hazard – no

Release of Pressure – no

Acute Health Hazard – yes

Chronic Health Hazard – no

State Regulations:

This product does not contain any components that are regulated under California Proposition 65.

XIII - ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

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