

## SODIUM CARBONATE Safety Data Sheet

### 1. IDENTIFICATION

Product name: Sodium carbonate, anhydrous

**Synonyms:** Soda ash; Carbonic acid disodium salt.

Manufacturer: **Telephone numbers:** 

Natrium Products, Inc. 58 Pendleton Street Cortland, NY 13045

USA

General inquiries: (607) 753-9829 Emergencies (US and Canada):

CHEMTREC (Customer Number 724993) (800) 424-9300 or 703-527-3887 (collect)

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### Recommended uses:

Water treatment; ingredient in cleaning/sanitizing products; raw material for glass, paper and chemical manufacturing; pH control.

### 2. HAZARD IDENTIFICATION

Hazard classification: Eye irritant, hazard category 2A

Label elements:

Hazard pictogram:



Signal word: Warning

Hazard statement: H319 Causes serious eye irritation.

Precautionary statements:

P280 Wear eye protection/face protection.

P264 Wash hands thoroughly after handling.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Other potential health effects: None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Sodium carbonate Chemical formula: Na<sub>2</sub>CO<sub>3</sub>

Synonyms: Soda ash; Carbonic acid disodium salt

**CAS Number:** 497-19-8

Concentration (% by Weight): >99%



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### 4. FIRST AID MEASURES

### Most important symptoms and effects:

### **Acute symptoms**

After inhalation: Dry/sore throat. Coughing. Slight irritation. Exposure to high concentrations: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties.

After skin contact: Not irritating.

After eye contact: Irritation of the eye tissue. Lacrimation.

After ingestion (high quantities): Nausea. Abdominal pain. Irritation of the gastric/intestinal mucosa.

### **Delayed symptoms**

No known effects.

### First aid measures

**Skin contact:** Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a physician if irritation persists.

**Ingestion:** Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a physician if discomfort persists.

**Inhalation:** Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

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

**Eye contact:** Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

### 5. FIRE-FIGHTING MEASURES

**Specific hazards that may develop during a fire:** Product is non-combustible, but thermal decomposition yields carbon dioxide (CO<sub>2</sub>) and sodium oxide (Na<sub>2</sub>O). Carbon dioxide is an asphyxiant, and sodium oxide is corrosive.

**Protective equipment:** Gloves. Safety glasses. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

**Extinguishing media:** Use extinguishing material that is appropriate for fire in the surrounding area.

### **6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions and emergency procedures:** Avoid contact with material and inhalation of dusts. Prevent dust cloud formation, e.g. by wetting. Ensure adequate ventilation.

Protective equipment for non-emergency and emergency personnel: See Section 8.

**Environmental precautions:** Contain released substance and transfer into suitable containers. Plug any leaks and cut off the supply. Knock down/dilute dust cloud with water spray. Violent exothermic reaction with acids releases carbon dioxide. Carbon dioxide is heavier than air and will collect in ducts, drains and low lying areas.

**Methods and material for containment and cleaning up:** Prevent dust cloud formation. Scoop solid spill into closable containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment with water after handling.

### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid creating dust. Keep away from open flames and heat. Observe normal hygiene standards. Keep container tightly closed.



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**Conditions for safe storage:** Store in a cool, dry, well-ventilated area.

Incompatibilities: Keep separated from heat sources, acids, metals, water/moisture.

Non suitable container material: Aluminum, zinc.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not established.

**Engineering controls:** Avoid creating dust. Keep away from open flames/heat. Carry out operations in well-ventilated areas or under local exhaust, or with respiratory protection.

**Personal Protection:** Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke when working with the product.

Eyes & Face: Safety glasses. In case of dust production: protective goggles.

**Respiratory:** Dust production: dust mask with approved filter.

**Hand protection:** Gloves (materials with good resistance: Rubber, PVC).

Miscellaneous: Protective clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Crystalline powder or granules.

Flammability: None.

Upper/lower flammability/explosive limits: Not applicable.

Odor: None.

Odor threshold: Not applicable. Vapor pressure: Not applicable. Vapor density: Not applicable. pH of solution (5% w/v): 11.6

**Density:** 2.5 g/cm<sup>3</sup>.

Melting point: 851°C (1564°F).

Solubility in water: 213 g/L @ 20°C.

**Boiling point:** Not applicable. **Flash point:** Not applicable.

**Evaporation rate:** Not applicable.

Partition coefficient, n-octanol/water: No data available.

**Auto-ignition temperature:** Not applicable. **Decomposition temperature:** 1600°C.

Viscosity: Not applicable.

### 10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions or polymerization will not occur under normal conditions.

Chemical stability: Stable under recommended handling and storage conditions. (See Section 7.)

**Conditions to avoid:** Avoid creating dust. Keep away from open flames/heat.

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**Incompatible materials:** Acids, aluminum, zinc.

Hazardous decomposition products: Carbon dioxide (CO<sub>2</sub>) and sodium oxide (Na<sub>2</sub>O).

### 11. TOXICOLOGICAL INFORMATION

**Acute Oral:**  $LD_{50}$  (rat) = 2800 mg/kg. **Acute Inhalation:**  $LC_{50}$  (rat) = 2.3 mg/L.

Eyes: Irritating (rabbit, EPA 16 CFR 1500.42); Highly irritating (rabbit, Equivalent to OECD 405).

Skin: Not irritating (rabbit, OECD 404).

Carcinogenicity: Not listed as a carcinogen or potential carcinogen by the National Toxicology Program (NTP),

the International Agency for Research on Cancer (IARC), or the U.S. Occupational Safety and Health

Administration (OSHA).

### 12. ECOLOGICAL INFORMATION

### Aquatic toxicity:

Fish: LC50 = 300 mg/L (Bluegill sunfish, 96-hr. exposure).

Invertebrates: EC50 = 200-227 mg/L (Ceriodaphnia cf. Dubia, 48-hr. exposure).

Algae: EC50 = 242 mg/L (5-day exposure).

Persistence/Bioaccumulation potential: Not expected to persist or bioaccumulate in the environment.

Biodegradation: Not applicable.

Mobility: High potential for movement from soil to groundwater is expected based on aqueous solubility.

### 13. DISPOSAL CONSIDERATIONS

Dispose in a landfill in accordance with pertinent federal, state and local regulations.

#### 14. TRANSPORT INFORMATION

Not regulated by the U.S. Department of Transportation.

#### 15. REGULATORY INFORMATION

CERCLA (40 CFR 302.4): Not a hazardous substance.

RCRA (40 CFR 261): Not a hazardous waste.

TSCA (40 CFR 710): Listed.

OSHA (29 CFR 1910.1200): Eye irritant.

SARA. Title III

SECTION 302 (40 CFR 355), Extremely Hazardous Substances: Not Listed.

SECTION 311 (40 CFR 370), Hazard Category: Immediate (Acute) Health Hazard.

SECTION 312 (40 CFR 370), Threshold Planning Quantity = 10,000 lbs.

SECTION 313 (40 CFR 372), Reportable Ingredients: Not Listed.

European Inventory (EINECS): 207-838-8.

### 16. OTHER INFORMATION

Maximum use level for drinking water corrosion and scale control: 100mg/L per NSF/ANSI 60 – 2014a.

Issue Date: 5/7/2015 Supersedes: 6/18/2012

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