

# MATERIAL SAFETY DATA SHEET

Product: **Sodium Carbonate**

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Material Identity

Product Name: Sodium Carbonate, Anhydrous, Technical

Product Code: CH-497198

Chemical Formula: Na<sub>2</sub>CO<sub>3</sub>

General or Generic ID: Crystal Carbonate, Disodium Carbonate, Sal Soda, Soda Asha, Washing Soda

### Company

ArtChemicals.com

2250 Davis Street

San Leandro, CA 94577-2204

510-639-4670

### Emergency Telephone Number:

1-800-451-8346

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS No.</u>	<u>Chemical Identity</u>	<u>Common Name</u>	<u>%</u>
497-19-8	N/A	Sodium Carbonate	100

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## 3. HAZARDS IDENTIFICATION

### Potential Health Effects

#### Eye:

Hazardous in case of eye contact (irritant). Symptoms include stinging, tearing, redness and impairment of vision. The degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

#### Skin:

Hazardous in case of skin contact (irritant/sensitizer). Symptoms may include redness, burning of skin, or, occasionally, blistering. The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment.

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**Ingestion:**

Slightly hazardous in case of ingestion. Inhalation of dust will produce irritation to gastrointestinal tract.

**Inhalation:**

Slightly hazardous in case of inhalation (lung irritant). Breathing in large amounts may cause respiratory irritation, burning, sneezing and coughing.

**Symptoms of Exposure:**

Not available.

**Development Information:**

Not available.

The substance may be toxic to upper respiratory tract, skin, eyes.

Repeated or prolonged exposure to the substance can produce target organs damage.

**Cancer Information:**

Not available.

**Primary Route(s) of Entry:**

Inhalation, skin absorption, skin contact, and eye contact.

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## 4. FIRST AID MEASURES

**Inhalation:**

If inhaled, promptly remove individual to fresh air. If not breathing, give oxygen. Get medical attention.

**Ingestion:**

Do NOT induce vomiting, unless directed by medical personnel. Seek medical attention. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Do not leave individual unattended. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Eyes:**

Remove contact lenses if worn. Spread eyelids with fingers and flush eye for minimum of 15 minutes with water; keep rotating the eyes to ensure complete flushing. WARM water MUST be used. Do not use an eye ointment. Seek medical attention.

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**Skin:**

Immediately remove contaminated clothing and thoroughly flush skin with plenty of water (15 minutes). Wash thoroughly with soap and water. Seek medical attention if irritation develops. Launder clothing before reuse.

**Note to Physicians:**

Not available.

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## 5. FIRE FIGHTING MEASURES

**Flash Point:** Non-flammable. Not available.

**Explosive Limit:** Not applicable.

**Auto-ignition Temperature:** Not available.

**Hazardous Products of Combustion:** Emits Na<sub>2</sub>O fumes when heated to decomposition.

**Extinguishing Media:** Not applicable.

**SPECIAL FIRE-FIGHTING PROCEDURES:** Sodium carbonate can ignite and burn fiercely in contact with fluoride. Sodium Carbonate in contact with fluorine decomposed at ordinary temperature with incandescence. Reacts explosively with red-hot aluminum metal. Sodium carbonate + ammonia in arabic gum solution will explode.

**NFPA CODES:** Health = 2                      Flammability = 0                      Reactivity = 1

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## 6. PRECAUTIONS FOR SAFE HANDLING AND USE

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

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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## 7. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as acids.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Respiratory Protection:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Be sure to use an approved/certified respirator or equivalent.

### Skin Protection:

Wear resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots or lab coat.

### Eye Protection:

Chemical splash goggles in compliance with OSHA regulations are advised. Face shield. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Other Protective Clothing or Equipment:

Provide sufficient mechanical ventilation to maintain exposure below level of overexposure. Boots. Full suit. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling product.

Consult local authorities for acceptable exposure limits.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** White powdered solid. (Odorless).

**Molecular Weight:** 105.99 g/mole

**pH:** 11.5 [Basic] (1% soln/water)

**Boiling Point:** Not available.

**Melting Point:** 851 °C (1563.8 °F).

**Specific Gravity:** 2.532 (Water=1)

**Vapor Pressure:** Not applicable.

**Evaporation Rate:** Not available.

**Solubility in Water:** Soluble in hot water. Partially soluble in cold water.

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## 10. STABILITY AND REACTIVITY

**Incompatibility:** Reactive with oxidizing agents and acids.

**Stability:** Stable.

**Hazardous Decomposition:** N/A

**Hazardous Polymerization:** Will not occur.

**SPECIAL REMARKS ON REACTIVITY:** Hot concentrated solutions of sodium carbonate are mildly corrosive to steel. Hygroscopic. Combines with water with evolution of heat. Incompatible with phosphorus pentoxide, lithium, fluorine, fluoride, ammonia + silver nitrate, 2,4,6-trinitrotoluene, ammonia, acids, sodium sulfide + water, hydrogen peroxide, red hot aluminum metal, sodium sulfide, zinc, calcium hydroxide. Sodium Carbonate is decomposed by acids with effervescence. Reacts violently with F<sub>2</sub>, Lithium, and 2,4,6-trinitrotoluene. Sodium begins to decompose at 400 C to evolve CO<sub>2</sub>.

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## 11. TOXICOLOGICAL INFORMATION

**WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.**

Acute oral toxicity (LD50): 4090 mg/kg [Rat].

Acute toxicity of the dust (LC50): 1200 mg/m<sup>3</sup> 2 hours [Mouse].

Acute Potential Health Effects:

Skin: Causes skin irritation with possible burns depending on the concentration, site (abraded or intact skin), and duration of exposure.

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Eyes: Causes eye irritation and possible burns. Concentrated solutions may cause permanent corneal injury (permanent corneal opacity).

Ingestion: Sodium carbonate ingestion may cause irritation of the digestive tract resulting in nausea, vomiting, diarrhea, thirst, abdominal pain depending on concentration and amount ingested. May also affect the cardiovascular system.

Inhalation: Dust may cause respiratory tract and mucous membrane irritation with coughing and shortness of breath (dyspnea), pulmonary edema.

Chronic Potential Health Effects:

Chronic inhalation may result in decreased pulmonary function, nasal congestion, nosebleeds, perforation of the nasal septum. Other effects of chronic exposure are skin (dermatitis and ulceration), and gastrointestinal complaints. However, the effects of chronic exposure seem to be reversible if exposure is decreased.

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## 12. ECOLOGICAL INFORMATION

Not available.

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The product itself and its products of degradation are less toxic.

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## 13. DISPOSAL CONSIDERATION

**Waste Disposal Method:**

Dispose of in accordance with all applicable local, state and federal regulations.

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## 14. DOT SHIPPING NAME & IDENTIFICATION:

NON-REGULATED. Not a DOT controlled material (United States).

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## 15. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that information is current, applicable, and suitable to their circumstances.