



Sodium Carbonate Powder MSDS

Effective Date: September 4, 2013

24 Hour Emergency Contact:

ChemTel: (800)255-3924

www.pioneerforensics.com

1. PRODUCT AND COMPANY IDENTIFICATION

Product:	Sodium Carbonate, Anhydrous Powder
Product Number(s):	PF050, PF051
CAS#:	497-19-8
Synonyms:	Soda ash; Washing soda; Disodium carbonate; Crystal carbonate; Carbonic acid, disodium salt; Calcined soda
Manufacturer:	Pioneer Forensics LLC 804 E. Eisenhower Blvd. Loveland, CO 80537 Ph: (970) 292-8487
Emergency Number:	(800) 255-3924 (CHEM-TEL)
Customer Service:	(970) 292-8487

2. HAZARDS IDENTIFICATION

Emergency Overview: MAY BE HARMFUL IF EXPOSED TO THE SKIN OR EYES. MAY BE HARMFUL IF INHALED OR INGESTED. MAY CAUSE IRRITATION TO THE SKIN, EYES, RESPIRATORY TRACT, AND GASTROINTESTINAL TRACT.

Safety Ratings: Health: 1, Slight Reactivity: 1, Slight
Flammability: 0, None Contact: 2, Moderate

OSHA Regulatory Status: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Acute Health Effects:

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact
Inhalation:	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Skin Contact:	May be harmful if absorbed through skin. May cause skin irritation.
Eye Contact:	May be harmful if exposed to the eyes. May cause eye irritation.

Target Organs: Eyes, skin, lungs

Chronic Health Effects: Repeated or prolonged exposure may cause damage to the eyes, skin, or lungs.

Potential Environmental Effects: This product is not expected to be harmful to the environment.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS#</u>	<u>Chemical Formula</u>	<u>Formula Weight</u>	<u>Hazardous</u>	<u>% by Weight</u>
Sodium Carbonate, Anhydrous	497-19-8	Na ₂ CO ₃	105.99	Yes	100

4. FIRST AID MEASURES

First Aid Procedures:

- Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If the victim is not breathing, provide artificial respiration. Get medical attention if symptoms persist.
- Ingestion:** Do not induce vomiting except as directed by medical personnel. If swallowed, give several glasses of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.
- Skin Contact:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists.
- Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.

General Advice: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Notes to Physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

NFPA Ratings: Health: 2 Flammability: 0 Reactivity: 1

Flammable Properties: Not flammable or combustible.

Flash Point: No information found

Auto-ignition Temp: No information found

Flammable Limits in Air (% by volume): No information found

Suitable Extinguishing Media: Water spray, dry powder, carbon dioxide, appropriate foam

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Hazardous Combustion Products: Carbon oxides, sodium oxides

Specific Hazards: Exposure to heat or high temperatures may cause thermal decomposition, yielding the hazardous combustion products listed above.

Special Protective Equipment for Firefighters: As in any fire, wear MSHA/NIOSH approved (or equivalent) self-contained positive pressure or pressure-demand breathing apparatus and full protective gear.

Specific Methods: Use water spray to cool unopened containers. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion, do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in the Exposure Control and Personal Protection Section 8. Avoid contact with eyes, skin, and clothing. Avoid transfer of product into the air as dust.

Environmental Precautions: Prevent further leakage or spillage if safe to do so.

Methods for Containment: Prevent entry into waterways, sewer, basements or confined areas.

Methods for Cleaning up: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, fleece) and place in a suitable container for reclamation or disposal. Clean contaminated surface thoroughly. If necessary, neutralize residue with a dilute solution of acetic acid. Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see section 8). Avoid contact with skin, eyes and clothing. Do not ingest or inhale. Keep product and container away from heat, flame, moisture, and incompatible materials. Wash thoroughly after handling.

Storage: Store in a dry, cool, ventilated area. Keep containers tightly closed.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limits: No information found

Engineering Controls: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels to an acceptable level.

Personal Protective Equipment:

Eye/Face Protection: Wear safety glasses or goggles.

Skin Protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection: Not expected to require the use of a respirator, however, if engineering controls do not maintain airborne concentrations to an acceptable level, an approved/certified respirator should be worn.

General Hygiene Considerations: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Appearance: Crystalline powder
Color: White
Odor: Odorless

Molecular Formula:	Na ₂ CO ₃
Molecular Weight:	105.99
pH:	11.5 (1% w/v aqueous at 25 °C)
Specific Gravity:	2.532
Freezing/Melting Point:	851 °C (1564 °F); Thermal decomposition at 400 °C (752 °F)
Boiling Point:	No information found
Flash Point:	No information found
Auto Ignition Temperature:	No information found
Flammable Limits in Air (% by Volume):	No information found
Solubility:	60 g/L H ₂ O at 0 °C; 170 g/L H ₂ O at 30 °C; soluble in glycerol
Vapor Pressure:	No information found
Vapor Density:	No information found
Percent Volatile:	No information found
Odor threshold (ppm):	No information found
Evaporation Rate:	No information found
Partition Coefficient (n-octanol/water):	No information found

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Incompatible materials, excessive heat, high temperatures, moisture
Incompatible Materials:	Acids, oxidizers, moisture, phosphorous pentoxide, lithium, fluorine, fluorides, ammonia, silver nitrate, trinitrotoluene, sodium sulfide, hydrogen peroxide, aluminum, zinc, calcium hydroxide
Hazardous Decomposition Products:	Carbon oxides, sodium oxides
Possibility of Hazardous Reactions:	May react violently, vigorously, or explosively with the incompatible materials listed above. Hazardous decomposition products are formed in excessive thermal conditions or when exposed to the incompatible materials listed above.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data:	Oral Rat LD50: 4090 mg/kg Inhalation Mouse LC50: 1200 mg/m ³ 2 H Oral Human LDL: 714 mg/kg
Acute Effects:	May be harmful if exposed to the eyes or skin. May be harmful if inhaled or ingested.
Local Effects:	Causes irritation to eyes, skin, lungs, mucous membranes, and gastrointestinal tract. Ingestion may cause cardiovascular effects. Inhalation may cause pulmonary edema.
Sensitization:	No information found
Chronic Effects:	Repeated or prolonged exposure may cause damage to the eyes, skin, and lungs. Chronic inhalation may cause decreased pulmonary function, nasal congestion, nosebleeds, and perforation of the nasal septum.
Carcinogenic Effects:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Skin Corrosion/Irritation:	Causes mild skin irritation. May cause burns.
Epidemiology:	No epidemiological data is available for this product.
Mutagenicity:	No information found
Neurological Effects:	No information found
Reproductive Effects:	May cause adverse reproductive effects based on animal data.
Teratogenic Effects:	No information found
Target Organs and Symptoms:	Eyes, skin, mucous membranes, lungs, gastrointestinal tract. Irritation, corneal opacity, burning sensation, headache, nausea, vomiting, diarrhea, thirst, coughing, wheezing, sore throat, laryngitis, dyspnea, pulmonary edema, chest pain, nasal congestion, nosebleeds, perforation of the nasal septum.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	LC50 Bluegill (<i>Lepomis macrochirus</i>): 300 mg/L 96 H EC50 Water flea (<i>Daphnia magna</i>): 265 mg/L 48 H
Ecotoxicity:	No information found
Environmental Effects:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic Toxicity:	No information found
Persistence and Degradability:	Long term biodegradation may occur. Products of biodegradation less toxic than the product itself.
Partition Coefficient (n-octanol/water):	No information found

13. DISPOSAL INFORMATION

Disposal Instructions:	Dispose of this material and its container in accordance with local, state and federal regulations.
Contaminated Packaging:	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Waste Codes:	No information found

14. TRANSPORT INFORMATION

DOT:	Not regulated
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15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA:	This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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TSCA Inventory: Sodium Carbonate

U.S. EPCRA (SARA Title III):

Sections 311/312:	<u>Hazard Categories</u>	<u>List (Yes/No)</u>
	Section 311 – Hazardous Chemical	Yes
	Immediate Hazard	Yes
	Delayed Hazard	No
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No

Section 313: No information found

International Inventories:	<u>Country(s) or Region</u>	<u>Inventory Name</u>	<u>On Inventory (Yes/No)*</u>
	Australia	Australian Inventory of Chemical Substances (AICS)	Yes
	Canada	Domestic Substances List (DSL)	Yes
	Canada	Non-Domestic Substances List (NDSL)	No
	China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
	Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
	Europe	European List of Notified Chemical Substances (ELINCS)	No
	Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
	Korea	Existing Chemicals List (ECL)	Yes
	New Zealand	New Zealand Inventory	No
	Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

Product Use: Laboratory and/or field reagent

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Reason for Revision: Not applicable