

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

NAME: Strontium Carbonate, Types A, C, D, G, & W.

SYNONYMS: Carbonic Acid, Strontium Salt.

MANUFACTURER: Chemical Products Corporation (CPC)
P.O. Box 2470
102 Old Mill Road, S.E.
Cartersville, Georgia 30120
Telephone: Day, 770-382-2144; Night, 770-382-2212

24-hour Emergency Phone Number: CHEMTREC 800-424-9300

2. INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS #</u>	<u>EXPOSURE LIMITS</u>	<u>% BY WT</u>
Barium Carbonate	513-77-9	OSHA PEL: 0.5 mg/cu m as Ba. 0.7 mg/cu m as BaCO ₃ ACGIH TLV-TWA: Same	0.4% - 1.5%
Strontium Carbonate	1633-05-2	OSHA PEL: Nuisance Dust, 10 mg/cu m	ca 98%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Strontium carbonate is essentially non-toxic through oral, dermal, or inhalation exposure. The barium carbonate impurity is harmful if ingested or inhaled in significant quantities. This product is not soluble in water and will not burn or react with water.

POTENTIAL HEALTH EFFECTS: The barium carbonate impurity in this product is a muscle stimulant and can cause excessive salivation, abdominal pain, vomiting, and diarrhea; however, the low levels present in this product should present a minimal hazard.

Routes of Entry: Inhalation of dust and possibly ingestion.

Human Effects: Any carbonate will react with stomach acid, releasing carbon dioxide gas - bloating may occur. Small amounts of soluble barium may enter the bloodstream.

Acute Inhalation: Physical blockage of breathing passages with choking sensation. The barium present might be sufficient to enter the blood stream and cause muscle stimulation.

Chronic Inhalation: No effect expected.

Acute Skin Contact: Product is alkaline and will dry the skin.

Chronic Skin Contact: May cause drying of the skin.

Acute Eye Contact: Will irritate the eyes.

Chronic Eye Contact: May cause irritation.

Acute Ingestion: Will neutralize stomach acid and cause bloating as carbon dioxide is released. The barium present might cause vomiting, abdominal pain, and diarrhea.

Chronic Ingestion: High doses (above 0.1 pound per day) of strontium carbonate may adversely affect bone mineralization.

Carcinogenicity: NTP..... : Not listed.
IARC..... : Not listed.
OSHA... .. : Not regulated.

Medical Conditions Aggravated by Exposure: None are known.

4. FIRST AID MEASURES

Ingestion: Have victim drink one tablespoon of Epsom Salts (magnesium sulfate) or Glauber's Salt (sodium sulfate) dissolved in water. If victim is not vomiting, induce vomiting by giving Syrup of Ipecac or by sticking finger down throat.

Inhalation: Flush mouth and nasal passages with water as much as possible.

Eye Contact: Flush eyes with large amounts of water until irritation subsides. Get medical attention.

Skin Contact: Wash with water and use soap if available.

5. FIRE FIGHTING MEASURES

Flashpoint: Non-Flammable.

Flammability: None.

Autoignition: None.

General Hazard: At very high temperature, decomposition will occur gradually releasing carbon dioxide gas.

Fire Fighting Instructions: No special instructions.

Fire Fighting Equipment: No special equipment is required.

Hazardous Combustion Products: None.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Sweep or scoop up spilled material.

Large Spill: Try to keep material dry. Reaction with acid releases carbon dioxide gas which may reach hazardous concentrations in a confined space. Scoop up spilled material and dispose of in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

Storage Temperature: Not critical.

Storage Pressure: Not critical.

General: Stable product. No special handling or storage procedures are required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Control airborne concentrations below the exposure limits. Use only with adequate ventilation.

Respiratory Protection: Use a NIOSH-approved dust mask if excessive dust is present.

Skin Protection: Cover exposed skin areas and wear general-purpose gloves.

Eye Protection: Wear safety glasses. Use chemical goggles if excessive dust is present.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid.

Vapor Pressure: Not applicable.

Specific Gravity: 3.5

Solubility in Water: 0.001% at 20 Deg. C.

pH: A 1% suspension of this product in water is slightly alkaline.

Boiling Point: Not applicable.

Melting Point: Decomposes to the oxide at about 1100 Deg. C.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable.

Odor: None, or possibly a very slight rotten egg odor.

Appearance: White powder or granules.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Incompatibility: In acids, decomposes releasing carbon dioxide gas.

Hazardous Decomposition Products: Carbon dioxide gas can be hazardous in confined spaces.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Eye: No data. Believed to be a mild irritant.

Skin: No data. Not expected to be absorbed through intact skin.

Ingestion: Strontium exhibits very low toxicity; Strontium Chloride Oral Rat LD50 = 2250 mg/kg. Barium Carbonate Oral Rat LD50 = 418 mg/kg; further information is given in National Toxicology Program TR 432, NIH Pub. No. 94-3163.

Inhalation: No data. Expected to be similar to ingestion.

Sub-chronic: Not known. No effects expected.

Chronic/Carcinogenic: High doses of strontium carbonate may adversely affect bone mineralization - see EPA's IRIS database. No evidence of carcinogenic effects.

Teratogenic: Not known. No effects expected.

Reproductive: Not known. No effects expected.

Mutagenic: Not known. No effects expected.

12. ECOLOGICAL INFORMATION

TOXICITY: Low.

DISTRIBUTION: The elements strontium and barium are widely distributed in the natural environment.

CHEMICAL FATE: Slowly converted to strontium and barium sulfates because of sulfate availability in the environment.

13. WASTE MANAGEMENT INFORMATION

If disposed of in its original form, this product is not a hazardous waste; however, the barium in the product can become soluble if the product is reacted with with strong acids.

A TCLP above 100 ppm soluble barium constitutes a RCRA hazardous waste. This is equal to 0.2 % soluble barium in a waste. The barium in this product can be reacted with sulfuric acid or any soluble sulfate to form highly-insoluble barium sulfate. Barium sulfate is not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

D.O.T. Shipping Name..... : Not Regulated.
Technical Shipping Name..... : Strontium Carbonate.
D.O.T. Hazard Class..... : Not Regulated.
U.N./N.A. Number..... : None.
Product R.Q. (lbs)..... : None.
D.O.T. Label..... : None.
D.O.T. Placard..... : None.
Freight Class Bulk..... : Inorganic Chemical.
Freight Class Package..... : Inorganic Chemical.
Product Label..... : Strontium Carbonate.

15. REGULATORY INFORMATION

OSHA Status..... : This product is non-hazardous under the criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Status..... Listed on TSCA Inventory.

CERCLA Reportable Quantity.. None.

SARA Title III:

Section 302, Extremely Hazardous Substances... : None.

Section 311/312, Hazard Categories..... Category 1 (Acute Hazard).

Section 313, Toxics Release Inventory..... None; Barium Carbonate content is below the reporting threshold.

RCRA Status..... : This product contains barium which may be solubilized by some acids. This product is not a hazardous waste when tested by the RCRA TCLP test.

16. OTHER INFORMATION

NFPA Rating (National Fire Protection Association):

Health - 1 (Materials which on exposure would cause irritation but only minor residual injury, even if no treatment is given)

Fire - 0 (Materials that are non-flammable).

Reactivity - 0 (Materials which in themselves are normally stable even under fire exposure conditions, and which are not reactive with water).

Special - NA

Reason for Issue.....: Revision of hazard information to conform to ANSI Z129.1 - 2000.

Prepared by..... : Jerry A. Cook.

Title..... : Technical Director.

Approval Date..... : August, 2001

Supersedes Date..... : March, 2000.

MSDS Number..... : 172.

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