

GHS SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: Strontium Carbonate – All Grades, including:
A, B, C, D, DF, SF, FC, and F

SYNONYMS: Precipitated Strontium Carbonate
Carbonic Acid, Strontium salt

Industrial uses recommended:

- Manufacture of pyrotechnical products
- Use in welding electrode coating
- Glass industry
- Manufacture of glazes, frits and enamels
- Manufacture of ceramic materials
- Manufacture of electro-ceramic materials
- Manufacture of other strontium compounds
- Use in zinc electrolysis
- Professional use in pyrotechnical products

Industrial uses advised against: None.

Molecular formula - SrCO₃
CAS No. 1633-05-2

SUPPLIER: Chemical Products Corporation
102 Old Mill Road SE
P.O. Box 2470
Cartersville, Georgia 30120

General Information: 770-382-2144
Transportation Emergency: CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture based on GHS criteria.

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

Hazards not covered by GHS –

- Product dust may be irritating to eyes, skin and respiratory system.
- Possible risk of irreversible effects through inhalation.
- Risk of pulmonary overload (respirable particulates).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Strontium carbonate, CAS No. : 1633-05-2; Concentration : \geq 96.0 %

Barium carbonate, CAS-No. : 513-77-9; Concentration : \leq 2.5 %

4. FIRST AID MEASURES

If inhaled

Move to fresh air. - If symptoms persist, call a physician.

In case of eye contact

Rinse thoroughly with plenty of water, also under the eyelids. - If eye irritation persists, consult a specialist.

In case of skin contact

Wash off with soap and plenty of water.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

This product itself does not burn.

Extinguishing media which shall not be used for safety reasons - None.

Hazardous decomposition products: Strontium oxide, Barium oxide, carbon monoxide, carbon dioxide.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Evacuate non-emergency personnel to safe areas. Avoid dust formation.

Advice for emergency responders: Keep dry to prevent slipping hazard. Prevent further leakage or spillage.

Environmental precautions: Should not be released into the environment. - Local authorities should be advised if significant spillages cannot be contained. Sweep up and shovel into suitable, closed containers for disposal. For disposal see section 13.

7. HANDLING AND STORAGE

Minimize dust generation and accumulation. Avoid contact with skin and eyes.

Provide appropriate exhaust ventilation at places where dust may be generated.

Keep container tightly closed in a dry and well-ventilated place.

Storage Temperature: Ambient.

Storage Pressure: Ambient.

General: This product is not water-soluble, but is soluble in most acids. Keep this material dry. Keep containers closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Values

Strontium carbonate - ACGIH Threshold Limit Values - none established

Barium carbonate

ACGIH Threshold Limit Values - time weighted average = 0.5 mg/m³
(as Ba)

OSHA Table Z-1-A (29 CFR 1910.1000) - time weighted average = 0.5 mg/m³
(as Ba)

OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) - Permissible exposure limit = 0.5 mg/m³ (as Ba)

Appropriate engineering controls: Control airborne concentrations below the exposure limits. Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as

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.

Relative density / Density: 3.79

Bulk density: from 300 - 700 kg/m³(powder)
from 1,200 - 2,000 kg/m³(pellets)

Solubility in Water: 3.4 mg/l at 20 °C (68 °F).

pH: 7-8 (saturated aqueous solution at 20 °C)

Decomposition temperature: ca. 667 °C (1,233 °F)

Melting Point: Near decomposition temperature.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable.

Odor: Odorless.

Appearance: White powder or granules.

10. STABILITY AND REACTIVITY

Chemical Stability: Keep away from intense heat which may cause decomposition. Keep away from acids which will cause decomposition and generate carbon dioxide gas.

Incompatibility: Acids will decompose strontium carbonate with the liberation of carbon dioxide.

Hazardous Decomposition Products: May be decomposed to release carbon dioxide gas which is hazardous in confined spaces.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

- LD50, rat, > 2,000 mg/kg (Strontium nitrate)

Acute inhalation toxicity

- LC50, 4 h, rat, 4.5 mg/l (Strontium nitrate)

Skin irritation

- no data available

Eye irritation

- no data available

Sensitisation

- Did not cause sensitization. (Strontium chloride anhydrous)

Chronic toxicity

- Oral, Repeated exposure, rat, Target Organs: skeleton, observed effect
- Inhalation, after a single exposure, rat, Target Organs: Respiratory system, observed effect
- Oral, Target Organs: thyroid gland, NOEL: 1200 ppm, LOAEL, (Strontium chloride anhydrous)
- Oral, rat, Target Organs: Skeleton, Lowest observable effect level: 634 mg/kg, LOAEL

Carcinogenicity

- Animal testing did not show any carcinogenic effects., (Strontium chloride anhydrous)
- In vitro tests did not show mutagenic effects, (Strontium nitrate)

Reproductive toxicity

- Animal testing did not show any effects on fertility., (Strontium nitrate)
- Target Organs: Skeleton, Bone, observed effect, Developmental Toxicity, (Strontium nitrate)

12. ECOLOGICAL INFORMATION

Acute toxicity

- Aquatic toxicity is unlikely due to low solubility.
- Fishes, Cyprinus sp., LC50, 96 h, > 97.45 mg/l (Strontium nitrate)
- Crustaceans, Daphnia magna, LC50, 48 h, 125 mg/l (Strontium chloride anhydrous)

Chronic toxicity

- Crustaceans, Daphnia magna, NOEC, 21 Days, 21 mg/l (Strontium chloride anhydrous)
- Pseudokirchneriella subcapitata, EC50, growth rate, 72 h, 104.5 mg/l (Strontium nitrate)
- Pseudokirchneriella subcapitata, NOEC, 72 h, 43.3 mg/l (Strontium nitrate)

Mobility: Water/soil - low solubility and mobility.

Persistence and degradability:

Abiotic degradation

- Water/soil Result: slow ionization and cation precipitation in presence of sulfates or carbonates
- Soil Result: considerable adsorption

Biodegradation: The methods for determining biodegradability are not applicable to inorganic substances.

13. WASTE MANAGEMENT INFORMATION - DISPOSAL

Waste containing more than 0.2% soluble barium is hazardous under the RCRA criteria (D005 - barium containing waste) . If disposed of in its purchased form, this product would be a hazardous waste based on barium solubility in the RCRA TCLP test. Barium compounds can be rendered non-hazardous by reaction with excess sulfate to form insoluble barium sulfate. Any disposal practice must be in compliance with local, state, and federal laws and regulations.

14. TRANSPORT INFORMATION

D.O.T. Shipping Name.....: Not Regulated by U.S. DOT
as a hazardous material.

Technical Shipping Name..... : Strontium Compound.

D.O.T. Hazard Class..... : None.
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

TSCA Status. : Listed on TSCA Inventory

CERCLA Reportable Quantity..... : None.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)
- not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required
- not regulated.

US. EPA CERCLA Hazardous Substances (40 CFR 302)
- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)
- not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

- not regulated.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

- not regulated.

RCRA Status: If discarded in its purchased form, this product would be a hazardous waste by characteristic. Under RCRA, it is the responsibility of the product user to determine, at the time of disposal, whether a waste containing the product, or derived from the product, should be classified as a hazardous waste under 40 CFR 261.20-24.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 1

Flammability: 0

Reactivity: 0

Revision Indicator: This GHS Safety Data Sheet replaces Material Safety Data Sheet dated January 2008.

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