

Seaforth Mineral & Ore Co., Inc.

Safety Data Sheet



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STRONTIUM CARBONATE

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Strontium Carbonate
Chemical Name: Strontium Carbonate
Recommended Use: Pyrotechniques, Magnets, Ceramics, Glass, Electronics
Manufactured For: Seaforth Mineral & Ore, Inc.
3690 Orange Place, #495
Cleveland, Ohio 44122
Phone: 216-292-5820
Emergency Phone: 800-292-9022

2. HAZARDS IDENTIFICATION

Classification: Not classified as hazardous according to criteria of NOHSC (Nat'l. Occupational & Health Safety Commission).

Signal Word: Warning



Pictogram:

Safety Phrases: Product dust may be irritating to eyes, skin and respiratory system.

Risk Phrases: Possible risk of irreversible effects through inhalation. Risks of pulmonary overload (respiratory particulates).

Environmental Hazards: None reported.

3. COMPOSITION/INFORMATION ON MATERIAL

Component	CAS Number	Proportion
Strontium Carbonate	1633-05-2	>96.5%
Barium Carbonate	513-77-9	< 2.5%

4. FIRST AID MEASURES

Inhalation: Remove the subject from dusty environment and let him blow his nose. If symptoms persist, call a physician.

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

Skin contact: Wash off with soap and water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.

Ingestion: Call a physician immediately.

If victim is conscious:

If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

If victim is unconscious but breathing:

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Artificial respiration and/or oxygen may be necessary.

5. FIRE FIGHTING MEASURES

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

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

Special exposure hazards in a fire: - Not combustible. Hazardous decomposition products formed under fire conditions.

Special protective equipment for firefighters: No special precautions required.

6. ACCIDENTAL RELEASE MEASURES

Precautions: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Should not be released into the environment.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal.
Avoid dust formation.
Keep in properly labelled containers.
Keep in suitable, closed containers for disposal.
Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

Handling:	Use only in well-ventilated areas. Keep away from incompatible products
Storage:	Keep in a dry place. Store in original container. Keep container closed. Keep away from Incompatible products.
Packaging material:	Paper and PE
Other information:	Avoid dust formation. Refer to protective measures listed in Sections 7 & 8.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Limit Values

Barium carbonate

US. ACGIH Threshold Limit Values 01 2006

Time weighted average = 0.5 mg/m³

Remarks: as Ba

Nanoparticles: Remarks: none established, Avoid exposure - obtain special instructions before use.

Exposure controls: Ensure adequate ventilation. Provide appropriate exhaust ventilation at places where dust is formed. - Refer to protective measures listed in sections 7 and 8.

Apply technical measures to comply with the occupational exposure limits.

Occupational exposure controls

Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- Recommended Filter type: P3

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Hand protection: Protective gloves
Suitable material: PVC, Natural Rubber
Unsuitable material : Do not wear neoprene gloves, as neoprene absorbs nanoparticles.

Eye protection: Dust proof goggles, if dusty.

Skin and Body Protection : long sleeved clothing, apron, boots, PVC

Hygiene measures: - When using do not eat, drink or smoke. - Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls : Dispose of rinse water in accordance with local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information (appearance, odor)

Appearance: powder, pellets

Color: white

Odor: odorless

Important health safety and environmental information

pH: 7 – 8 *Remarks: saturated aqueous solution Temperature: 20 °C*

Boiling point/boiling range: not applicable, Decomposition

Flash point: not applicable

Flammability: product is not flammable.

Explosive properties: Explosion danger: *Remarks: Not explosive*

Oxidizing properties: Non oxidizer

Vapor pressure not applicable

Relative density / Density: 3.7

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

Solubility: Water, 0.01 g/l, *Temperature: 18 °C*

Partition coefficient: not applicable

n-octanol/water

Vapor density: not applicable

Melting point/range: not applicable, Decomposition

Auto-flammability: no data available

Granulometry: 0.74 - 10 µm (powder), *Remarks: d 50, nanoparticles 80 % > 0.15 - 0.85 mm (pellets)*

Decomposition temperature: > 1,340 °C

10. STABILITY AND REACTIVITY

Stability

- Stable under recommended storage conditions.
- Contact with acids liberates CO₂, sometimes violently.

Conditions to avoid: none

Materials to avoid: Incompatible with acids.

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Hazardous decomposition products: Strontium oxide. The release of other hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Acute oral toxicity

LD50, rat, > 2,000 mg/kg

Chronic toxicity

Oral, Repeated exposure, rat, Target Organs: skeleton, observed effect

Inhalation, after a single exposure, rat, Target Organs: Respiratory system, observed effect

Possible hazards (summary)

Product dust may be irritating to eyes, skin and respiratory system.

No data exists on the effects of nanometer sized particles on the body.

Other dangerous properties cannot be excluded.

Health effects

Main effects

-Chronic exposure to the product can cause bone calcification disorders.

-Product dust may be irritating to eyes, skin and respiratory system.

-Possible risk of irreversible effects through inhalation.

Inhalation

-Repeated or prolonged exposure: chronic bronchitis, Risk of pulmonary overload (respirable particulates).

-(in case of higher concentration): chemical pneumonitis.

Eye contact

Contact with eyes may cause irritation.

Skin contact

The product may be absorbed through the skin. May cause skin irritation and/or dermatitis.

Ingestion

No reported cases of intoxication in man.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Acute toxicity

Remarks: no data available

Chronic toxicity

Remarks: no data available

Mobility

Air: Remarks: mobility as solid aerosols -Water/soil Remarks: low solubility and mobility

Persistence and degradability

Abiotic degradation

water/soil Result: slow ionization and cation precipitation in presence of sulfates or carbonates

Biodegradation

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

Bioaccumulative potential

Bioconcentration: Terrestrial plants, various species

Result: potential accumulation of the cation

Other adverse effects no data available

Possible hazards (summary)

no data available

Ecological injuries are not known or expected under normal use.

Persistent product mainly in its inert form.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

In accordance with local and national regulations.

Dispose of wastes in an approved waste disposal facility.

Packaging treatment

Containers that cannot be cleaned must be treated as waste.

Or

Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

14. TRANSPORT INFORMATION

Remarks:

DOT not regulated

15. REGULATORY INFORMATION

Labels: Not classified as hazardous according to criteria of NOHSC.

15.2. Inventory Information

Toxic Substance Control Act list (TSCA)	:	-	In compliance with inventory.
Australian Inventory of Chemical Substances (AICS)	:	-	In compliance with inventory.
Canadian Domestic Substances List (DSL)	:	-	In compliance with inventory.
Korea Existing Chemicals Inv. (KECI) (KECI (KR))	:	-	In compliance with inventory.
EU list of existing chemical substances (EINECS)	:	-	In compliance with inventory.
Japan (ENCS) List (ENCS (JP))	:	-	In compliance with inventory.
Inventory of Existing Chemical Substances (China) (IECS)	:	-	In compliance with inventory.
Philippine Inventory of Chemicals and Chemical Substances (PICCS)	:	-	In compliance with inventory.
New Zealand Inventory (in preparation) (NZ)	:	-	In compliance with inventory.

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15. OTHER INFORMATION

Administrative information

- General revision
- Distribute new edition to clients

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.

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