

# CHEMICAL PRODUCTS CORPORATION

SDS No. 175

## SAFETY DATA SHEET

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### 1. PRODUCT IDENTIFIER

NAME: Celestite Ore

SYNONYMS: Natural Strontium Sulfate, Celestine  
Sulfuric Acid, Strontium salt

Recommended for industrial use as:

- a filler and pigment in rubber, plastics, and paper;
- a component of drilling muds employed in the petroleum industry;
- a raw material for the production of industrial chemicals;
- a component of paints and pigments.

Industrial uses advised against: None.

Molecular formula -  $\text{SrSO}_4$

CAS No. 7759-02-6

MANUFACTURER: Chemical Products Corporation  
102 Old Mill Road  
P.O. Box 2470  
Cartersville, Georgia 30120-1688  
Telephone: 1-770-606-8166

EMERGENCY: CHEMTREC, 800-424-9300 (24 Hours every day)

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### 2. HAZARD IDENTIFICATION



**WARNING: CAN CAUSE IRRITATION OF THE RESPIRATORY TRACT  
CAN CAUSE EYE IRRITATION**

MAY CAUSE SKIN IRRITATION.

Do not eat, drink or smoke when using this product.

Wear protective gloves and eye protection.

Use with adequate ventilation or wear a dust mask if excessive  
dust is present.

Wash hands and face thoroughly after handling.

**POTENTIAL HEALTH EFFECTS:**

Strontium sulfate is essentially non-toxic through oral, dermal, or inhalation exposure. Chronic overexposure to airborne dust particles of respirable size may present a cancer hazard. This product may contain crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can cause silicosis, a seriously disabling lung disease.

**Carcinogenicity:** NTP.....: Crystalline silica listed as a carcinogen. No data for strontium sulfate or barium sulfate.

IARC.....: Crystalline silica quartz (14808-60-7) impurity  
IARC Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources).

**Medical Conditions Aggravated by Exposure:** Asthma and chronic lung disease may be affected by chronic overexposure to airborne dust particles of respirable size.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS #</u>	<u>EXPOSURE LIMITS</u>	<u>% BY WT</u>
Strontium Sulfate	7759-02-6	OSHA PEL: Nuisance Dust, 15 mg/m <sup>3</sup> total 5 mg/m <sup>3</sup> respirable	ca 93%
Barium Sulfate	7727-43-7	OSHA PEL: Nuisance Dust, 15 mg/m <sup>3</sup> total 5 mg/m <sup>3</sup> respirable	ca 2%
Silica	14808-60-7 7631-86-9	OSHA PEL: crystalline 10 mg/m <sup>3</sup> divided by (%SiO <sub>2</sub> + 2) amorphous 80 mg/m <sup>3</sup> divided by (%SiO <sub>2</sub> )	0.1 to 2 %

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### 4. FIRST AID MEASURES

**Ingestion:** No special treatment is required unless large pieces are swallowed which may cause blockage. Seek medical attention if blockage is suspected.

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

**Eye Contact:** Flush eyes with large amounts of water for at least 15 minutes. Get medical attention if irritation persists.

**Skin Contact:** No special treatment required, wash with soap and water. Wash contaminated clothing before reuse.

## 5. FIRE FIGHTING MEASURES

**Flashpoint:** Non-Flammable.

**Flammability:** Non-Flammable.

**Autoignition:** Non-Flammable.

**General Hazard:** No fire hazard. Will decompose releasing toxic fumes including sulfur dioxide at extremely high temperatures.

**Fire Fighting Instructions:** Limit water runoff if it is likely to contain suspended celestite ore.

**Fire Fighting Equipment:** No special equipment is required. Wash away any celestite ore which may contact the body, clothing, or equipment.

**Hazardous Combustion Products:** None.

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## 6. ACCIDENTAL RELEASE MEASURES

**General:** Avoid generating dust. Use appropriate Personnel Protective Equipment (PPE).

**Small Spill:** Carefully shovel up or sweep up spilled material and place in suitable container. Avoid creating dust during cleanup.

**Large Spill:** Try to keep material dry and prevent material from entering storm sewers or ditches leading to natural waterways. Avoid creating dust during cleanup.

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## 7. HANDLING AND STORAGE

**Storage Temperature:** Not Critical. Ambient.

**Storage Pressure:** Not Critical. Ambient.

**General:** This product is not water-soluble. 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid.

**Vapor Pressure:** Not applicable.

**Specific Gravity:** 3.9

**Solubility in Water:** 0.14 grams per liter of water at 30 Deg. C.

**pH:** Neutral.

**Boiling Point:** Not Applicable.

**Melting Point:** About 1600 Degrees C. - Near decomposition temperature.

**Vapor Density:** Not applicable.

**Evaporation Rate:** Not applicable.

**Odor:** None.

**Appearance:** White to gray powder or lumps.

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## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable.

**Incompatibility:** None.

**Hazardous Decomposition Products:** None.

**Hazardous Polymerization:** Does not occur.

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## 11. TOXICOLOGICAL INFORMATION

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

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

**Ingestion:** Some strontium chloride may be formed in the stomach. Oral rat LD50 is 2250 mg/kg for strontium chloride.

In higher organisms, bioaccumulation occurs in bone due to strontium's similarity to calcium. Chronic ingestion of large amounts of strontium sulfate may result in weak bones.

**Inhalation:** No data for strontium sulfate. ACGIH TLV for silica (quartz) is 2.8 mg/cu m for respirable dust and 6.6 mg/cu m for total dust.

**Sub-chronic:** Not known. No effects expected.

**Chronic/Carcinogenic:** Possible adverse effects from inhalation of minor amount of crystalline silica impurity. Strontium sulfate did not induce chromosome damage in hamster lung cells in culture or mutation in an Ames bacterial test.

**Teratogenic:** Not known. No effects expected.

**Reproductive:** No effects expected. No effects on reproduction/fertility or fetal development were seen in a screening study in which rats (both sexes) were given strontium sulfate by gavage for about 6–8 weeks starting 2 weeks before mating. According to a review, no effects on fertility were seen when rats were given strontium chloride in the drinking-water over three generations.

**Mutagenic:** No effects expected. Strontium sulfate did not induce chromosome damage in hamster lung cells in culture or mutation in an Ames bacterial test.

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## 12. ECOLOGICAL INFORMATION

Like calcium, strontium has moderate mobility in soils and sediments and sorbs moderately to metal oxides and clays. Plants readily absorb strontium via their normal calcium uptake pathway. Strontium is readily accumulated in otoliths, vertebrae and opercula of fish.

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### 13. WASTE MANAGEMENT INFORMATION - DISPOSAL

If disposed of in its original form, this material would be non-hazardous under all applicable RCRA criteria. Any disposal practice must be in compliance with local, state, and federal laws and regulations.

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### 14. TRANSPORT INFORMATION

D.O.T. Shipping Name..... : Not Regulated.

Technical Shipping Name..... : Celestite Ore.

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..... : Celestite Ore.

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### 15. REGULATORY INFORMATION

**TSCA Status**..... : Naturally-occurring materials are automatically included on TSCA Inventory.

**CERCLA Reportable Quantity**..... : None.

**SARA Title III:**

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

Section 311/312, Hazard Categories..... : Category 2  
(Chronic Hazard).

Section 313, Toxics Release Inventory..... : None.

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**RCRA Status**.....: Non-hazardous.

***New Jersey Worker and Community Right-to-Know Act  
(New Jersey Statute Annotated Section 34:5A-5)***

- not regulated.

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

- not regulated.

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## 16. OTHER INFORMATION

**NFPA Rating** (National Fire Protection Association):

**Health - 1** (Materials which, on exposure, would cause irritation with only minor residual injury).

**Fire - 0** (Materials which are nonflammable).

**Reactivity - 0** (Materials which in themselves are normally stable even under fire exposure conditions, and which are nor reactive with water).

**Special - NA**

**Reason for Issue**..... : 29 CFR 1910.1200(g) compliance.

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

**Title**..... : Technical Director.

**Approval Date**..... : December 2014.

**Supersedes Date**..... : July 2013.

**MSDS Number**..... : 175.

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