CHEMICAL PRODUCTS CORPORATION

SAFETY DATA SHEET

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1. PRODUCT IDENTIFIER

Celestite Ore (Strontium Sulfate)

1.1 Trade Name: Celestite Ore

Synonyms: Natural Strontium Sulfate; Celestine; Sulfuric Acid, Strontium salt

CAS Number: 7759-02-6 Molecular formula - SrSO₄

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Recommended industrial uses:
 - manufacture of industrial chemicals;
 - filler and pigment in rubber, plastics, and paper;
 - component of drilling muds employed in the petroleum industry;
 - component of paints and pigments;

- Industrial uses advised against: None.

1.3 Supplier of this SDS: Chemical Products Corporation 102 Old Mill Road P.O. Box 2470 Cartersville, Georgia 30120-1688 Telephone: 1-770-382-2144

1.4 EMERGENCY PHONE NUMBER: CHEMTREC, 800-424-9300 (24 hours every day)

2. HAZARD IDENTIFICATION

2.1 Classification in accordance with paragraph (d) of §1910.1200

Not a hazardous substance or mixture based on GHS criteria.

2.2 Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200.

Not a hazardous substance or mixture.

2.3 Other hazards not otherwise classified that have been identified during the classification process

- Dust from this granular product may cause abrasion in the eye.
- Dust from this granular product may be irritating to eyes, skin and respiratory system.
- Risk of pulmonary overload from excessive respirable particulate dust derived from this granular product.

 This product may contain crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica can cause silicosis, a seriously disabling lung disease.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS#	EXPOSURE LIMITS	%BYWT
Strontium Sulfate	7759-02-6	OSHA PEL: Nuisance Dust, 15 mg/cu m total 5 mg/cu m respirable	ca 93%
Barium Sulfate	7727-43-7	OSHA PEL: Nuisance Dust, 15 mg/cu m total 5 mg/cu m respirable	ca 2%
Silica	14808-60-7 7631-86-9	OSHA PEL: crystalline 10 mg/m ³ divided by (%SiO2 + 2) amorphous 80 mg/m ¹ divided by (%SiO2)	0.1 to 3 %

4. FIRST AID MEASURES

4.1 Description of necessary first-aid measures

If swallowed

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

If inhaled

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

For eye contact

Flush eyes with large amounts of water as a precaution and get medical attention of irritation persists.

For skin contact

Take off contaminated clothing and shoes. Wash off with soap and plenty of water. Consult a physician if irritation persists.

4.2 Most important symptoms and effects, both acute and delayed

- May cause gastric distress, nausea, and vomiting if ingested.

- Nuisance dust may contain crystalline silica which may cause cancer.

Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

4.3 Indication of any immediate medical attention and special treatment needed, if necessary

- seek medical treatment if you feel unwell after being exposed to dust from this product.

5. FIRE FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media.

Use water spray, foam, dry chemical or carbon dioxide.

<u>Flashpoint</u>: Non-Flammable. <u>Flammability</u>: Non-Flammable. <u>Autoignition</u>: Non-Flammable.

5.2 Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).

No data available.

5.3 Special protective equipment and precautions for fire-fighters.

No special equipment is required, but personal protective equipment and self-contained breathing apparatus should be used as a general precaution. Wash away any of this product which may contact the body, clothing, or equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures.

Use personal protective equipment. Avoid dust formation. Evacuate personnel to safe areas. Prevent further leakage or spillage. Ensure adequate ventilation. Avoid breathing dust.

6.2 Methods and materials for containment and cleaning up.

Sweep up and shovel to transfer released material to properly labeled containers. Pick up and arrange disposal without creating dust.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling.

Avoid formation of dust. The potential for dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

- Avoid contact with skin and eyes.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards

7.2 Conditions for safe storage, including any incompatibilities.

<u>Storage</u> <u>Temperature:</u> Not Critical. Ambient. <u>Storage</u> <u>Pressure:</u> Not Critical. Ambient. <u>General</u>: This product is not water-soluble. Stable product. No special handling or storage procedures are required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)

- See Section 3.

- 8.2 Appropriate engineering controls.
- Control airborne concentrations below the exposure limits. Use only with adequate ventilation. Apply technical measures to comply with the occupational exposure limits.
- 8.3 Individual protection measures, such as personal protective equipment.
- 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

Appearance (physical state, color, etc.): Solid; white or gray powder or lumps. Odor: No data available. Expected to be odorless. Odor Threshold: No data available. PH: 7.0 - 8.0 at 68 °F (20 °C) saturated aqueous solution Melting point/Freezing point: >2,921 °F (>1,605 °C). Initial boiling point and boiling range: No data available. Flash point: No data available. Not flammable. Evaporation rate: No data available. Flammability (solid, gas): Not flammable. Upper/lower flammability or explosive limits: No data available. Not flammable Vapor pressure: No data available. Vapor density: No data available. Relative density – Specific Gravity: 3.9 g/cm3 Solubility: very slightly soluble in water: 0.14 grams per liter of water at 30 °C. Partition coefficient: n-octanol/water: No data available. Auto-ignition temperature: No data available. Decomposition temperatures: >2,921 °F (>1,605 °C). Viscosity: No data available.

- 10. STABILITY AND REACTIVITY
- 10.1 Reactivity

No data available.

10.2 Chemical Stability

Stable under recommended storage conditions.

- 10.3 Possibility of Hazardous Reactions No dangerous reaction known under conditions of normal use.
- 10.4 Conditions to avoid (e.g., static discharge, shock, or vibration) No data available.
- 10.5 Incompatible materials Acids.
- 10.6 Hazardous decomposition products Sulfur oxides, Strontium oxide only under very extreme conditions

11. TOXICOLOGICAL INFORMATION

11.1 Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

Most likely route of exposure is expected to be skin and eye contact.

- 11.2 Symptoms related to the physical, chemical and toxicological characteristics
- Acute dermal toxicity: No data available.
- Skin corrosion/irritation: No data available.
- Respiratory or skin sensitisation: No data available.
- Specific target organ toxicity single exposure: No data available.
- Specific target organ toxicity repeated exposure: No data available.
- Aspiration hazard: No data available.

11.3 Delayed and immediate effects and also chronic effects from short- and long-term exposure

- Strontium sulfate did not induce chromosome damage in hamster lung cells in culture, or mutation in an Ames bacterial test.
- Possible adverse effects from inhalation if crystalline silica impurity is present in dust.
- Chronic ingestion of large amounts of strontium sulfate may result in weak bones. In higher organisms,

bioaccumulation occurs in bone due to strontium's similarity to calcium.

Teratogenic: No data available.

Reproductive:

- 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.
- 11.4 Numerical measures of toxicity (such as acute toxicity estimates) No data available.
- 11.5 Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available)

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available. No appreciable bioconcentration is expected in the environment.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

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Bury in a licensed landfill. Any disposal practice must be in compliance with local, state, and federal laws and regulations.

14. TRANSPORT INFORMATION

DOT HazMat proper shipping name.....: Not Regulated. U.N./N.A. Number.....: None. Technical Shipping Name.....: Strontium Compound. D.O.T. Transport Hazard Class.....: None. Packing group Product R.Q. (Ibs).....: None. D.O.T. Label.....: None. D.O.T. Placard: None. Environmental hazards: Not a Marine Pollutant Freight Class Bulk.....: Inorganic Chemical. Freight Class Package.....: Celestite Ore.

15. REGULATORY INFORMATION

TSCA Status.....: Listed on TSCA Inventory as ACTIVE 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: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

NFPA Rating (National Fire Protection Association):

- **Health 1** (Materials that cause irritation upon exposure, but only minor injury is sustained even if no medical treatment is provided).
- **Fire 0** (Materials which are nonflammable).

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:	29 CFR 1910 compliance.
Prepared by	Jerry A. Cook.
Title:	Technical Director.
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MSDS Number	175

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