

GHS SAFETY DATA SHEET

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1. IDENTIFICATION

Product Name:

NAME: Strontium Nitrate, Low Barium.

SYNONYMS: Nitric Acid, Strontium Salt.

Recommended for industrial use in:

- Manufacture of pyrotechnical products
- Manufacture of other strontium substances
- Use as reactive processing aid
- Raw material in the chemical industry
- Raw material in the electronic industry

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

Transportation Emergency: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910

Oxidizing solid (Category 3), H272

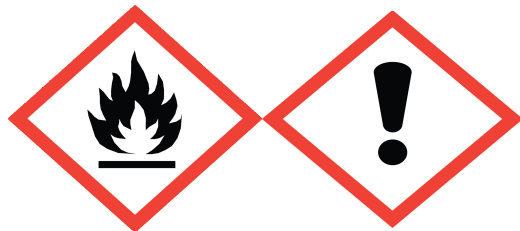
Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3),

Respiratory system, H335



Signal word **Warning**

Strontium Nitrate, Low Barium**Hazard statements**

- H272 May intensify fire; oxidizer.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

Precautionary statements

- P210 Keep away from heat.
- P220 Keep/Store away from clothing/ combustible materials.
- P221 Take any precaution to avoid mixing with combustibles.
- P261 Avoid breathing dust.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER or doctor if you feel unwell.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P330 Rinse mouth.
- P332 + P313 If skin irritation occurs: Get medical attention.
- P337 + P313 If eye irritation persists: Get medical attention.
- P362 Take off contaminated clothing and wash before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

Strontium Nitrate, Low Barium

P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

3. COMPOSITION/INFORMATION ON INGREDIENTS Substances

Formula : $\text{Sr}(\text{NO}_3)_2$ Molecular Weight : 211.63 g/mol

<u>COMPONENT</u>	<u>CAS #</u>	<u>EXPOSURE LIMITS</u>	<u>% BY WT</u>
Barium Nitrate	10022-31-8	OSHA PEL: 0.5 mg/cu m as Ba. 0.9 mg/cu m as $\text{Ba}(\text{NO}_3)_2$ ACGIH TLV-TWA: Same	ca 0.4%
Strontium Nitrate	10042-76-9	OSHA PEL: Nuisance Dust, 15 mg/cu m	ca 96%

4. FIRST AID MEASURES

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

Eye contact: Flush eyes with large amounts of water for at least 15 minutes. Call a physician or poison control center immediately. Remove contact lens if practical and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).

Skin contact: Wash off with soap and water. Remove and wash contaminated clothing before re-use. If irritation develops/persists, call a physician.

Ingestion: Rinse mouth with water. Have victim drink one tablespoon of Epsom Salts (magnesium sulfate) or Glauber's Salt (sodium sulfate) dissolved in water. Do NOT induce vomiting. Get medical attention if victim feels unwell.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use dry chemical, foam, or carbon dioxide to extinguish fire. Water may be ineffective but should be used to cool fire-exposed containers, structures and to protect personnel.

Flashpoint: Non-Flammable.

Flammability: None.

Autoignition: None.

Strontium Nitrate, Low Barium

General Hazard: This product is an oxidizer. Spontaneous chemical reaction with low flash point organics or reducing agents may occur. Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full protective clothing.

Fire Fighting Instructions: No special instructions.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Hazardous Combustion Products: Toxic fumes of nitrogen oxides may be generated.

6. ACCIDENTAL RELEASE MEASURES

Keep away from incompatible products.

Keep away from water.

Should not be released into the environment.

If the product contaminates rivers and lakes, or drains inform respective authorities.

Small Spill: Sweep or scoop up spilled material.

Large Spill: Try to keep material dry. Avoid contact with organics or reducing agents. Scoop up spilled material and dispose of in accordance with local, state, and federal regulations.

Pick up and arrange disposal without creating dust.

Keep in properly labeled containers.

Do not mix waste streams during collection.

Keep in suitable, closed containers for disposal.

Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

Storage Temperature: Not critical.

Storage Pressure: Not critical.

Handling: Ensure adequate ventilation.

Keep away from heat and sources of ignition.

Keep away from Incompatible products.

Use only clean and dry utensils.

Never return unused material to storage receptacle.

Keep away from water.

Avoid contact with skin and eyes.

Storage: Keep only in the original container.

Store in a receptacle equipped with a vent.

Store in a well-ventilated place. Keep cool.

Keep in a dry place. - Keep in properly labeled containers.

Keep container closed.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid dust formation.
Take measures to prevent the build up of electrostatic charge.
Ensure all equipment is electrically grounded before beginning transfer operations.
Keep away from Incompatible products.

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: about 3.

Solubility in Water: 667 - 802 g/l at 25 Deg. C. (77 Deg. F.)

pH: 5-7

Boiling Point: Not applicable.

Melting Point: Decomposes at about 500 °C. producing oxides of nitrogen.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable.

Odor: None.

Appearance: White crystalline powder or granules.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable in the absence of heat or shock.

To avoid thermal decomposition, do not overheat.

Materials to avoid: Water, Acids, Powdered metal salts, Reducing agents, Organic materials, Flammable materials, Combustible material, PVC .

Strontium Nitrate, Low Barium

Hazardous Decomposition Products: Toxic fumes of nitrogen oxides.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - rat - 1,892 mg/kg

LD50 Oral - mouse - 1,028 mg/kg

Inhalation toxicity - LC50, 4 h, Rat, > 4.5 mg/l

Dermal: no data available

Skin corrosion/irritation

no data available. Not expected to be absorbed through intact skin.

Serious eye damage/eye irritation

no data available. Mild chemical burns to the eye may occur.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

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.

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

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 identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

May cause irritation of mucous membranes

Specific target organ toxicity - repeated exposure

Chronic ingestion of significant amounts of this product can cause bone calcification disorders.

Strontium Nitrate, Low Barium**Aspiration hazard**

no data available

Additional Information

RTECS: WK9800000

12. ECOLOGICAL INFORMATION

Distribution: The element strontium is widely distributed in the natural environment.

Ecotoxicity effects:

Acute toxicity

- Fishes, *Cyprinus carpio*, LC50, 96 h, > 97.45 mg/l
- Fishes, *Brachydanio rerio*, NOEC, mortality, 34 d, >= 100 mg/l

Chronic toxicity

- Crustaceans, *Daphnia magna*, LC50, 48 h, 125 mg/l (Strontium chloride anhydrous)
- Crustaceans, *Daphnia magna*, NOEC, 21 d, 21 mg/l (Strontium chloride anhydrous)
- *Pseudokirchneriella subcapitata* (green algae), EC50, Growth rate, 72 h, > 104.7 mg/l
- *Pseudokirchneriella subcapitata* (green algae), NOEC, 72 h, >= 104.7 mg/l

Mobility – Water: considerable solubility and mobility

- Soil/sediments: considerable adsorption

Persistence and degradability - Abiotic degradation: No data available

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

Bioaccumulative potential - Bioconcentration: potential accumulation of the cation

Other adverse effects - No data available

13. WASTE MANAGEMENT INFORMATION

If disposed of in its purchased form, this product is a hazardous waste because of the small amount of soluble barium in the product.

More than 100 ppm soluble barium in the TCLP extract of a waste renders it a D005 RCRA hazardous waste. This is equal to 0.2 % soluble barium in a waste. This product contains soluble barium in excess of 0.2%. The barium in this product can be rendered non-leachable/insoluble by reacting it with sulfuric acid or any soluble sulfate to form highly-insoluble barium sulfate. Barium sulfate is not a RCRA hazardous waste because it is not soluble.

Strontium Nitrate, Low Barium

14. TRANSPORT INFORMATION

U.S.A.

D.O.T. Proper Shipping Name..... : Strontium nitrate.

Packing Group.....: III

D.O.T. Hazard Class..... : 5.1 Oxidizer.

U.N./N.A. Number..... : UN 1507

Product R.Q. (lbs)..... : None.

Marine pollutant.....: No

Poison Inhalation Hazard.....: No

Product Label..... : Strontium Nitrate.

IMDG

UN number: 1507 Class: 5.1 Packing group: III EMS-No: F-A, S-Q

Proper shipping name: STRONTIUM NITRATE

Marine pollutant: No

IATA

UN number: 1507 Class: 5.1 Packing group: III

Proper shipping name: Strontium nitrate

15. REGULATORY INFORMATION

U.S. Federal Regulations:

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):

There is no reportable quantity (RQ) for this material.

Toxic Substances Control Act (TSCA): All components of this product are included on the TSCA inventory.

Clean Water Act (CWA):

Clean Air Act (CAA):

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard: X

Delayed Hazard:

Fire Hazard:

Pressure Hazard:

Reactivity Hazard: X

Strontium Nitrate, Low Barium

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

Massachusetts Right To Know Components

strontium nitrate CAS No. 10042-76-9

Pennsylvania Right To Know Components

strontium nitrate CAS No. 10042-76-9

New Jersey Right To Know Components

strontium nitrate CAS No. 10042-76-9

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

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

Health: 2

Flammability: 0

Reactivity: 1

Revision Indicator: Replaces September 2014 MSDS to convert to GHS Safety Data Sheet format.

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