

Safety Data Sheet

1. Chemical product and company identification

Product name : Strontium nitrate

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.
 Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
 Name of section : Business Administration Department, Reagent Division
 Telephone number : +81-3-6214-1090
 Facsimile number : +81-3-3241-1047
 Mail address : BC32@kanto.co.jp
 Reference No : 37348
 Recommended use : For research use only
 Restrictions on use : Seek expert judgment when using the product for applications other than those recommended.

2. Hazards identification

GHS classification

Physical hazards	Oxidizing solids	Category 3
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2B

Hazard pictograms



Signal word : Warning

Hazard statements : May intensify fire; oxidizer
Causes skin and eye irritation

Precautionary statements

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep away from clothing and other combustible materials.
 Wash hands, forearms and face thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF ON SKIN: Wash with plenty of water.
 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 Specific treatment (see supplemental first aid instruction on this label).
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.



Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Strontium nitrate	98 - 102	N206Sr	Listed	233-131-9	10042-76-9

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

First-aid measures after skin contact : Wash the affected areas under running water.

First-aid measures after eye contact : Wash the affected areas under running water for at least 15 minutes. If necessary, get medical treatment.

First-aid measures after ingestion : Rinse mouth with water. Give the victim one or two glasses of water or milk. Do not induce vomiting. Get medical treatment as soon as possible.

Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media : This product is noncombustible.

Unsuitable extinguishing media : None

Fire hazard : Contact with combustible material may cause fire.

Firefighting instructions : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Personal protection (Emergency response) : Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Environmental precautions

Environmental precautions : Attention should be given to avoid discharge of spilled product into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.

Methods and Equipment for Containment and Cleaning up

For containment : Sweep up in a chemical waste container. Flush contaminated area



with copious amounts of water.

7. Handling and storage

Handling

- Technical measures : Wear appropriate protective equipment to avoid contact with skin or inhalation of dust.
- Precautions for safe handling : Avoid formation of dust and aerosols.
The substance is an oxidizer. Avoid contact with organic substances.

Storage

- Storage conditions : Store in a dark, cool place and tightly closed.
Keep away from combustible materials.
- Material used in packaging/containers : Glass, polyethylene, polypropylene.

8. Exposure controls / Personal protection equipment

ACGIH TWA	Not established
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- Appropriate engineering controls : Install a local ventilation system in case of dusty condition.

Protective equipment

- Respiratory protection : Dust mask
- Hand protection : Impervious protective gloves
- Eye protection : Safety goggles
- Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

- Physical state : Solid
- Color : White
- Odor : Odorless
- pH : 5.0 - 7.0 (50 g/L, 25°C)
- Melting point : 570 ° C
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability : Non flammable.
- Vapor pressure : No data available
- Relative density : No data available
- Density : 2.99 g/cm³ (20°C)
- Relative gas density : No data available
- Solubility : Water: 70.9 g/100mL (18°C)
Organic solvent: Slightly soluble in ethanol, acetone.
- Partition coefficient n-octanol/water (log Pow) : No data available



Explosive limits (vol %) : No data available
Viscosity, kinematic : No data available
Particle characteristics : No data available

10. Stability and reactivity

Reactivity : Has oxidative properties.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : May ignite or explode when in contact with flammable or reducing substances.
Conditions to avoid : Light, heat.
Incompatible materials : Combustible materials, reducing substances.
Hazardous decomposition products : Nitrogen oxides, strontium oxide.

11. Toxicological information

Acute toxicity (oral) : No classification
mice LD50=5675 mg/kg
Acute toxicity (dermal) : Classification not possible
Acute toxicity (inhalation) : No classification (gas)
Classification not possible (vapor)
Classification not possible (dust, mist)
Skin corrosion/irritation : Causes skin irritation
Based on reports of "marked skin irritation" in rat and guinea pig tests and "irritated the skin" in rabbits by topical application, the substance was classified into category 2.
Serious eye damage/irritation : Causes eye irritation
Based on reports of "weakly irritated the conjunctival membrane in rabbits" and "highly irritating to the skin but only slightly irritating to the mucosa", the substance was classified into category 2B.
Respiratory sensitization : Classification not possible
Skin sensitization : Classification not possible
Germ cell mutagenicity : Classification not possible
Carcinogenicity : Classification not possible
Reproductive toxicity : Classification not possible
Although there is a report that no effect for fetal development was noted in a subcutaneous injection test with rats during gestation days 9 - 19, this test is insufficient due to small number of animals (3/group) and no data for the effects on sexual function and fertility. Therefore, classification was not possible due to lack of data.
STOT-single exposure : Classification not possible
Classification not possible due to lack of data. As relevant information, as only information on the adverse effects, there is a case report of a 35-year-old female paramedic who developed a sudden, severe reaction upon inhaling fumes from a flare that contained strontium as strontium nitrate. Initial symptoms included coughing, wheezing, and shortness of breath, and recovery ultimately required sedation, intubation, and intensive care for several days. Her medical history included several significant contributing factors which may have resulted in her severe reaction. Additionally, inhalation of flare combustion products are known to be irritating to the respiratory tract. Therefore, the exact contribution of strontium in this case is uncertain.



STOT-repeated exposure	: Classification not possible Classification not possible due to lack of data. As relevant information, there is an report that when rats were exposed to 44.6 mg/m ³ /4 hr for a month, decreased leukocyte count, changes in urine volume and component, increased synthesis function of the liver, histological findings such as interstitial pneumonia in the lungs, atrophy of the lymphatic system, dystrophy of hepatocytes and dystrophy in the epithelium of the renal tubules were seen. Since no details of test animals and compound were given and no report of method is provided, this test cannot be considered valid, although, it gives an indication of systemic effects after inhalation of strontium compounds.
Aspiration hazard	: Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	: Classification not possible
Aquatic chronic	: No classification Danio rerio NOEC≥100 mg/L/34-day

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Hazardous to the ozone layer

Ozone	: Classification not possible
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13. Disposal considerations

Ecological waste information	: Dilute with copious water and adjust the pH to neutral, then flush in drains. Insoluble substances are buried in a landfill site approved for the disposal of chemical and hazardous wastes. Or entrust approved waste disposal companies with the disposal.
Contaminated container and packaging	: In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG)	: 1507
Proper Shipping Name (IMDG)	: STRONTIUM NITRATE
Packing group (IMDG)	: III
Transport hazard class(es) (IMDG)	: 5.1

Air transport(IATA)

UN-No. (IATA)	: 1507
Proper Shipping Name (IATA)	: Strontium nitrate
Packing group (IATA)	: III



Transport hazard class(es) (IATA)	: 5.1
Marine pollutant	: Not applicable
MFAG-No	: 140

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.
Encyclopaedia Chimica, Kyoritsu Shuppan Co, Ltd. (1963) .
ECHA (European Chemicals Agency).

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253.

