

1. Product and Company Identification

www.rxmarine.com

Product Name Strontium peroxide
Part Number RXSOL-19-3254-025

Company Details:....

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

Phone +91 22 20871200 - 1400
Fax +91 22 27612100 ::AOH :0091 9821214367
Email mail@rxmarine.com
Website www.rxmraine.com

2. Composition / Information on ingredients

www.rxmarine.com

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No1272/2008
Strontium peroxide	1314-18-7	EEC No. 215-224-6	90-95	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Ox. Sol. (H272)

REACH registration number

3. Hazards Identification

www.rxmarine.com

Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Physical hazards

Oxidizing solids

Category 2 (H272)

Health hazards

2 Skin corrosion/irritation

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Specific target organ toxicity - (single exposure)

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Specific target organ toxicity - (single exposure)

Environmental hazards

1B Skin sensitization

Based on available data, the classification criteria are not met

Label elements

Hazard Statements

H272 - May intensify fire; oxidizer

H315 - Causes skin irritation

H335 - May cause respiratory irritation

H319 - Causes serious eye irritation

Precautionary Statements

P280 Wear protective gloves and eye protection or face protection.

P261 Avoid breathing mist or vapour or spray.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P272 Contaminated work clothing should not be allowed out of the workplace.

P264 Wash contaminated body parts thoroughly after handling.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Precautionary Statements (Response):

P312 Call a POISON CENTER or physician if you feel unwell.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical attention.

P332 + P313 If skin irritation occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use water spray, dry powder, foam, carbon

dioxide or

dry sand for extinction.

P312 Call a POISON CENTER or physician if you feel unwell.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical attention.

P332 + P313 If skin irritation occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use water spray, dry powder, foam, carbon dioxide or

dry sand for extinction.

P312 Call a POISON CENTER or physician if you feel unwell.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 If skin irritation or rash occurs: Get medical attention.

P332 + P313 If skin irritation occurs: Get medical attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use water spray, dry powder, foam, carbon dioxide or

dry sand for extinction.

. Other hazards

No information available

4. First Aid Measures

www.rxmarine.com

Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention.

Ingestion

Clean mouth with water. Get medical attention.

Inhalation

Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

eye specialist. Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an

Self-Protection of the First Aider

eye specialist.
Ensure that medical personnel are aware of the material(s) involved, take precautionstoprotect themselves and prevent spread of contamination..

Most important symptoms and effects, both acute and delayed

No information available.

. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
--------------------	-----------------------

5. Fire-fighting Measures

www.rxmarine.com

Extinguishing media

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Extinguishing media which must not be used for safety reasons	No information available.
Special hazards arising from the substance or mixture	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood, paper, oil, clothing, etc.).

Hazardous Combustion Product

None under normal use conditions.

Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

Reference to other sections

Refer to protective measures listed in Sections 8 and 13

7. Handling and Storage

www.rxmarine.com

Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe dust. Handle product only in closed system or provide appropriate exhaust ventilation. Keep under nitrogen. Keep away from clothing and other combustible materials.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials. Keep under nitrogen. Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical No substance specific occupational exposure limits known.

Rules for Hazardous Substances (TRGS) 510

Storage Class/LGK 5.1B

Storage Class (LGK) (Germany)

Switzerland - Storage of hazardous substances

Storage class - SC 5 <https://www.kvu.ch/de/themen/stoffe-und-produkte>
<https://www.kvu.ch/fr/themes/substances-et-produits>
<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

Specific end use(s)

Use in laboratories

8. Exposure controls and personal protection

www.rxmarine.com

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)	No information available
Predicted No Effect Concentration (PNEC)	No information available
<u>Exposure controls</u>	
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source
Personal protective equipment	
Eye Protection	Goggles (European standard - EN 166)
Hand Protection	Protective gloves
Glove material	Neoprene
Breakthrough time	See manufacturers - EN 374
Glove thickness	
EU standard	
Glove comment	
(minimum requirement)	
recommendations	
<u>Skin and body protection</u>	
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
	Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
	To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Small scale/Laboratory use	Recommended Filter type: Particulates filter conforming to EN 143 Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN141 When RPE is used a face piece Fit Test should be conducted
Environmental exposure controls	No information available

9. Physical and chemical properties

www.rxmarine.com

Information on basic physical and chemical properties

Physical State	Powder Solid
Appearance	Off-white
Odour	Odorless
Odor Threshold	No data available

Melting Point/Range	215 °C / 419 °F
Softening Point	No data available
Boiling Point/Range	No information available
Flammability (liquid)	Not applicable
Flammability (solid,gas)	No information available
Explosion Limits	No data available
Flash Point	No information available
	materials.Extremely flammable in the presence of the following materials or conditions: oxidizing
	materials.
Autoignition Temperature	No data available
Decomposition Temperature	No data available
pH	No information available
Viscosity	Not applicable
Water Solubility	slightly soluble in cold water
Solubility in other solvents Partition Coefficient (n-octanol/water	No information available
Vapor Pressure	No data available
Density / Specific Gravity	No data available
Bulk Density	No data available
Vapor Density	Not applicable
Particle characteristics	No data available
<u>Other information</u>	
Molecular Formula	O2 Sr
Molecular Weight	119.62
Oxidizing Properties	Oxidizer
Evaporation Rate	Not applicable - Solid

10. Stability and reactivity

www.rxmarine.com

Reactivity	No hazardous reactions if stored and handled as prescribed/indicated. Corrosion to metals: No corrosive effect on metal. Oxidizing properties: Based on its structural properties the product is not classified as oxidizing. Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.
Chemical stability	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions	Explosion and fire hazard exists under confined conditions. Ignitable air mixtures can form when the product is heated above the flash point and/or when sprayed or atomized. Formation of explosive

gas/air mixtures.

Risk of spontaneous and violent self-polymerization if inhibitor is lost or product is exposed to

excessive heat. Risk of spontaneous polymerization when heated or in the presence of UV radiation.

With unstabilised product, spontaneous polymerisation may occur e.g. through ambient heat.

Polymerization coupled with heat formation. Polymerization produces gases which may burst closed

or confined containers. Reactions may cause ignition.

Risk of spontaneous polymerization by oxygen depletion of the liquid phase.

Radical formation can cause exothermic polymerization. Reacts with peroxides and other radical

components. Risk of spontaneous polymerization in the presence of starters for radical chain

reactions (e.g. peroxides). Reacts with nitric acid. Polymerizes explosively in contact with strong

oxidizing agents. Risk of spontaneous polymerization in the presence of oxidizing agents.

Hazardous reactions in presence of mentioned substances to avoid.

The product is stabilized against spontaneous polymerization prior to despatch. The product is stable

if stored and handled as prescribed/indicated.

Avoid heat. Avoid oxygen content above the product of less than 5 %. Do not blanket with nitrogen.

Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage.

Avoid inhibitor loss. Avoid excessive temperatures.

radical formers, free radical initiators, peroxides, mercaptans, nitro-compounds, perborates, azides, ether, ketones, aldehydes, amines, nitrates, nitrites, oxidizing agents, reducing agents, strong bases, acid anhydrides, acid chlorides, concentrated mineral acids, metal salts Inert gas

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as

prescribed/indicated.

Thermal decomposition:

No data available

Conditions to avoid

Incompatible materials

Hazardous decomposition products

11. Toxicological information

www.rxmarine.com

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for

Acute Toxicity/Effects

liquefied gases.

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic after a single

skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely

acute hazard.

Oral

Type of value: LD50

Species: rat (male/female)

Value: approx. 4,435 mg/kg (BASF-Test)

Inhalation

Species: rat

Value: (IRT)

Exposure time: 8 h

No mortality within the stated exposition time as shown in animal studies.

Dermal

Type of value: LD50

Species: rabbit (no data)

Value: 7,522 mg/kg

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the eyes. Skin contact causes irritation.

Skin

Species: rabbit

Result: Irritant.

Method: BASF-Test

Information on: 2-ethylhexyl acrylate

Species: rabbit

Result: Irritant.

Method: BASF-Test

Eye

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Sensitization after skin contact possible.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizing

Method: OECD Guideline 429

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizing

Method: OECD Guideline 429

Aspiration Hazard

No aspiration hazard expected.

Repeated dose toxicity

Assessment of repeated dose toxicity: The substance may cause damage to the olfactory epithelium

after repeated inhalation. After repeated exposure the prominent effect is local irritation.

Genetic toxicity

Assessment of mutagenicity: In the majority of studies performed with microorganisms and in

mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed

in in vivo tests.

Chronic Toxicity/Effects

Carcinogenicity

Assessment of carcinogenicity: Long-term exposure to highly irritating concentrations resulted in skin

tumors in animals. A carcinogenic effect in humans can be excluded after brief skin contact. IARC

Group 3 (not classifiable as to human carcinogenicity).

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility

impairing effect. The product has not been tested. The statement has been derived from

substances/products of a similar structure or composition.

Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen

in animal studies. The product has not been fully tested. The statements have been derived in parts

from products of a similar structure or composition.

12. Ecological information

www.rxmarine.com

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Toxicity to fish

LC50 (96 h) 1.81 mg/l, *Oncorhynchus mykiss* (OECD Guideline 203, semistatic)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates

EC50 (48 h) 1.3 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

EC50 (72 h) 1.71 mg/l (growth rate), *Scenedesmus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

Study not necessary due to exposure considerations.

Chronic toxicity to aquatic invertebrates

EC10 (21 d) 0.91 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)

Assessment of terrestrial toxicity

No effects at the highest test concentration.

The product has not been tested. The statement has been derived from substances/products of a

similar structure or composition.

Soil living organisms

Toxicity to soil dwelling organisms:

EC50 (28 d) > 1,000 mg/kg, soil dwelling microorganisms (OECD 217, natural soil)

The product has not been tested. The statement has been derived from substances/products of a

similar structure or composition.

Toxicity to terrestrial plants

No data available.

Other terrestrial non-mammals

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192 aquatic

activated sludge, domestic/EC20 (30 min): > 1,000 mg/l

Nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria).

Elimination information

70 - 80 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic)

Assessment of stability in water

In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)

t_{1/2} 18.5 h (25 °C, pH value 11.0), (other, other)

t_{1/2} 210 h (25 °C, pH value 7.0), (other, pH 7)

t_{1/2} 533 h (25 °C, pH value 3.0), (other, other)

Bioaccumulative potential

Assessment bioaccumulation potential

Does not accumulate in organisms.

Bioaccumulation potential

Bioconcentration factor: 347 (28 d), Cyprinus carpio (OECD-Guideline 305)

Does not accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

13. Disposal considerations

www.rxmarine.com

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:

Uncleaned empties should be disposed of in the same manner as the contents. Flammable vapors may exist in containers in which residues of this product remain. Dispose of in accordance with national, state and local regulations.

14. Transport information

www.rxmarine.com

Land transport

Not classified as a dangerous good under transport regulations

TDG	
Sea transport	Not classified as a dangerous good under transport regulations
IMDG	
Air transport	Not classified as a dangerous good under transport regulations
IATA/ICAO	

15. Regulatory information

www.rxmarine.com

Federal Regulations

Registration status:	Chemical DSL, CA released / listed
NFPA Hazard codes:	Health: 2 Fire: 2 Reactivity: 2 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Flam. Liq	4 Flammable liquids
STOT SE	3 (irritating to respiratory system) Specific target organ toxicity [3] single exposure3 (irritating to respiratory system)
Skin Corr./Irrit.	Specific target organ toxicity [3] single exposure 2 Skin corrosion/irritation
Aquatic Acute	2 Hazardous to the aquatic environment - acute

16. Other information

www.rxmarine.com

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY : The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.
-------------------	--