

# MSDS – Strontium Peroxide

MATERIAL SAFETY DATA SHEET (MSDS) / SAFETY DATA SHEET (SDS)

## 1. Identification

**Product Name:** Strontium Peroxide

**Chemical Name:** Strontium Peroxide

**Synonyms:** Strontium dioxide

**Chemical Formula:** SrO<sub>2</sub>

**CAS Number:** 1314-18-7

**Recommended Use:** Laboratory reagent, oxidizing agent, chemical synthesis

**Restrictions on Use:** Not for food, drug, or household use

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## 2. Hazard(s) Identification

**GHS Classification:**

**Oxidizing Solid, Category 2**

**Acute Toxicity (Oral), Category 4**

**Skin Irritation, Category 2**

**Eye Irritation, Category 2A**

**Signal Word:** Warning

**Hazard Statements:**

**H272:** May intensify fire; oxidizer

**H302:** Harmful if swallowed

**H315:** Causes skin irritation

**H319:** Causes serious eye irritation

**Precautionary Statements:**

**Keep away from heat, sparks, and combustible materials**

**Wear protective gloves and eye/face protection**

**Do not ingest or inhale dust**

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## 3. Composition / Information on Ingredients

Component	Concentration
Strontium Peroxide (SrO <sub>2</sub> )	≥ 95%

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## 4. First-Aid Measures

**Inhalation:**

Move person to fresh air. Seek medical attention if symptoms persist.

**Skin Contact:**

Wash immediately with soap and water. Remove contaminated clothing.

**Eye Contact:**

Rinse cautiously with water for at least 15 minutes. Seek medical attention.

**Ingestion:**

Do NOT induce vomiting. Rinse mouth. Seek immediate medical attention.

**Symptoms:**

Irritation, burning sensation, nausea, respiratory discomfort.

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## 5. Fire-Fighting Measures

**Suitable Extinguishing Media:** Water spray (large quantities), dry chemical

**Unsuitable Media:** Foam, CO<sub>2</sub> (may be ineffective)

**Specific Hazards:** Strong oxidizer; may intensify fire

**Protective Equipment:** Self-contained breathing apparatus (SCBA)

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## 6. Accidental Release Measures

Evacuate area and ventilate

Avoid dust formation

Collect with non-combustible tools

Store in suitable sealed container

Prevent release to environment

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## 7. Handling and Storage

Handling:

Avoid contact with skin, eyes, and clothing

Avoid inhalation of dust

Do not mix with combustible or reducing agents

Storage:

Store in cool, dry, well-ventilated area

Keep container tightly closed

Store away from organic materials, acids, and flammables

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## 8. Exposure Controls / Personal Protection

Exposure Limits:

No established OSHA or ACGIH limits

Engineering Controls:

Local exhaust ventilation

Personal Protective Equipment (PPE):

Safety goggles or face shield

Chemical-resistant gloves

Lab coat

Dust mask or respirator if needed

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## 9. Physical and Chemical Properties

Appearance: White to pale yellow solid

Odour: Odourless

Melting Point: Decomposes > 100 °C

Solubility: Reacts with water

Density: ~4.5 g/cm<sup>3</sup>

pH: Alkaline (in water, due to decomposition)

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## 10. Stability and Reactivity

Stability: Stable under recommended storage

Reactivity: Strong oxidizer

Incompatible Materials: Acids, organic materials, reducing agents

Decomposition Products: Strontium oxide, oxygen

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## 11. Toxicological Information

Acute Toxicity: Harmful if swallowed

Skin/Eye Effects: Irritating

Chronic Effects: Prolonged exposure may affect respiratory system

Carcinogenicity: Not listed by IARC, NTP, or OSHA

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## 12. Ecological Information

Harmful to aquatic life in large quantities

**No detailed Eco toxicity data available**  
**Avoid environmental release**

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**13. Disposal Considerations**

**Dispose in accordance with local, regional, and national regulations**  
**Do not dispose in drains or waterways**

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**14. Transport Information**

**UN Number: UN 1508**  
**Proper Shipping Name: Strontium Peroxide**  
**Hazard Class: 5.1 (Oxidizer)**  
**Packing Group: II**

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**15. Regulatory Information**

**OSHA: Hazardous**  
**TSCA: Listed**  
**SARA: Not specifically listed**

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**16. Other Information**

**Revision Date: 17 February 2024**

**Disclaimer: This SDS is provided for informational purposes only and does not replace regulatory compliance.**