

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Name:** Rubidium Oxide Nanoparticles / Nanopowder

**Product Number:** All applicable American Elements product codes, e.g. RB-OX-02-NP , RB-OX-03-NP , RB-OX-04-NP , RB-OX-05-NP

**CAS #:** 18088-11-4

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

**Emergency telephone number:**

+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

Statement of Hazard: Corrosive, Irritant, Respiratory irritant

Acute Health Hazard: Irritant to eyes, skin, mucous membranes and respiratory system.

May be harmful by ingestion, skin absorption and inhalation.

Chronic Health Hazard: Not Available

HMIS Rating: H: 2 F: 0 P: 0

NFPA Rating: H: 2 F: 0 P: 0

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

Pictogram:



GHS05 GHS07

Signal Word: Danger

Hazard Statement(s): H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
Precautionary Statement(s): P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
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.  
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name: Rubidium oxide  
CAS Number: 18088-11-4  
MDL Number: MFCD00011189  
EINECS Number: 241-993-2  
Beilstein Registry Number: Not Available  
Molecular Formula:  $\text{Rb}_2\text{O}$   
Molecular Weight: 186.93  
Content: As specified in product name.

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### **SECTION 4. FIRST AID MEASURES**

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.  
Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.  
Ingestion: Do not induce vomiting. Seek medical attention.  
Inhalation: Move to a fresh air environment. Contact a physician if breathing becomes difficult.

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### **SECTION 5. FIREFIGHTING MEASURES**

Flash Point (°C): Not Available  
Explosion Limits: Not Available  
Autoignition (°C): Not Available  
Extinguishing Media: Carbon dioxide, dry chemical powder, alcohol-resistant foam, or water spray  
Protective Equipment: Wear self-contained respirator and fully protective impervious suit.  
Specific Hazards: May emit hazardous fumes under fire conditions.

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### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal Protection: Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls. Dispose of coveralls after use. Remove from ignition sources if safe to do so. Follow emergency response plan and contact proper authorities if needed. Keep unprotected persons

away.

Environmental Protection: Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

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## **SECTION 7. HANDLING AND STORAGE**

Handling and Storage: Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.

Store in a tightly closed container in a dry, well-ventilated place.

Sensitivities: Not Available

Storage Temperature (°C): 15 to 30

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Controls: Use product in a well ventilated area or under a fume hood. Use proper lab equipment while handling this product. Keep away from incompatible materials for possible risk of hazardous reaction.

Eye Protection: Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash station in your vicinity.

Skin Protection: Wear impervious gloves and protective clothing.

Respiratory Protection: Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

Exposure Limits:

Country / Source / Type: Value

USA / ACGIH / TWA: Not Available

USA / OSHA / STEL: Not Available

USA / OSHA / PEL: Not Available

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Crystalline powder or solid

Odor: Not Available

Odor Threshold: Not Available

Flash Point (°C): Not Available

Autoignition (°C): Not Available

UEL % by Volume: Not Available

LEL % by Volume: Not Available

Melting Point (°C): 400

Boiling Point (°C): Not Available

Evaporation Rate: Not Available

pH Value: Not Available

Density (g/cm<sup>3</sup>): 3.72

Refractive Index (n<sub>D</sub><sup>20</sup>): Not Available

Viscosity: Not Available

Solubility in Water: Not Available

Solubility in Other: Not Available

Vapor Pressure (mmHg): Not Available

Vapor Density (Air=1): Not Available

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## **SECTION 10. STABILITY AND REACTIVITY**

Stability: Stable under normal temperatures and pressures.

Incompatibility: Strong oxidizing agents

Reactivity: Product may react with incompatible materials to release other hazardous substances.

Conditions to Avoid: Heat, flame, sparks, other ignition sources.

Hazardous Decomposition Products: Rubidium oxides

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

RTECS Reference: Not Available

Target Organs: Not Available

Toxicity Data: Not Available

Carcinogenicity:

National Toxicology Program (NTP) listed: Not Available

International Agency for Research on Cancer (IARC) listed: Not Available

Potential Symptoms: Not Available

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity: Not Available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT Shipping Name: Corrosive Solid, N.O.S.

DOT UN Number: UN1759

DOT Hazard Class: Class 8

DOT Packing Group: PGII

IMDG Shipping Name: Corrosive Solid, N.O.S.

IMDG UN Number: UN1759

IMDG Hazard Class: Class 8

IMDG Packing Group: PGII

Marine Pollutant: No

IATA Shipping Name: Corrosive Solid, N.O.S.

IATA UN Number: UN1759

IATA Hazard Class: Class 8

IATA Packing Group: PGII

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## SECTION 15. REGULATORY INFORMATION

United States

Toxic Substance Control Act (TSCA) listed: Yes

Superfund Amendments and Reauthorization Act (SARA 302) listed: No

Superfund Amendments and Reauthorization Act (SARA 311/312) listed: No

Superfund Amendments and Reauthorization Act (SARA 313) listed: No

European Union

European Inventory of Existing Chemical Substances (EINECS): 241-993-2

Canada

Canadian Domestic Substances List (DSL) listed: Yes

Canadian Non-Domestic Substances List (NDSL) listed: No

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## SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.