

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

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

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

**CAS #:** 20281-00-9

**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

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## SECTION 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:**

May cause skin irritation and/or dermatitis

Principle routes of exposure:

Skin

Inhalation:

May cause irritation of respiratory tract

Ingestion:

May be harmful if swallowed.

Skin contact:

May cause allergic skin reaction

Eye contact:

Avoid contact with eyes

Statements of hazard

**MAY CAUSE ALLERGIC SKIN REACTION.**

Statement of Spill or Leak - ANSI Label

Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

CESIUM OXIDE

CAS Number

20881-00-9

OSHA Exposure Limits:

None

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## SECTION 4. FIRST AID MEASURES

General advice:

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation:

Move to fresh air. Call a physician immediately.

Skin contact:

Rinse immediately with plenty of water and seek medical advice

Ingestion:

Do not induce vomiting without medical advice.

Eye contact:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Protection of first-aiders:

No data available

Medical conditions aggravated by exposure:

None known

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## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:

Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam

Specific hazards:

Burning produces irritant fumes.

Unusual hazards:

None known

Special protective equipment for firefighters:

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

Specific methods:

Water mist may be used to cool closed containers.

Flash point: No data available

Autoignition temperature: No data available

NFPA rating:

NFPA Health: 1

NFPA Flammability: 1

NFPA Reactivity: 0

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

Personal precautions:

Use personal protective equipment.

Environmental precautions:

Prevent product from entering drains.

Methods for cleaning up:

Sweep up and shovel into suitable containers for disposal.

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

Storage:

ROOM TEMPERATURE

Handling:

Use only in area provided with appropriate exhaust ventilation.

Safe handling advice:

Wear personal protective equipment.

Incompatible products:

Oxidising and spontaneously flammable products

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

Engineering measures:

Ensure adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection:

Breathing apparatus only if aerosol or dust is formed.

Hand protection:

Pvc or other plastic material gloves

Skin and body protection:

Usual safety precautions while handling the product will provide adequate protection against this potential effect.

Eye protection:

Safety glasses with side-shields

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

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

Formula: Cs<sub>2</sub>O

Molecular weight: 281.8102

Melting point/range: No data available at this time.

Boiling point/range: No Data available at this time.

Density: No data available

Vapor pressure: No data available

Evaporation rate: No data available

Vapor density: No data available

Solubility (in water): No data available

Flash point: No data available

Autoignition temperature: No data available

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## SECTION 10. STABILITY AND REACTIVITY

Stability:

Stable under recommended storage conditions.

Polymerization:

None under normal processing.

Hazardous decomposition products:

Thermal decomposition can lead to release of irritating gases and Vapors such as carbon oxides.

Materials to avoid:

Strong oxidising agents

Conditions to avoid:

Exposure to air or moisture over prolonged periods.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

Acute toxicity

Components

CESIUM OXIDE

RTECS Number: Not Available

Selected LD50s and LC50s: No data available

Chronic toxicity:

Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

Local effects:

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Specific effects:

May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

Primary irritation:

No data is available on the product itself.

Carcinogenic effects:

No data is available on the product itself.

Mutagenic effects:

No data is available on the product itself.

Reproductive toxicity:

No data is available on the product itself.

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## SECTION 12. ECOLOGICAL INFORMATION

Mobility: No data available

Bioaccumulation: No data available

Ecotoxicity effects: No data available

Aquatic toxicity: May cause long-term adverse effects in the aquatic environment.

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## SECTION 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Waste disposal must be in accordance with appropriate

Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.  
Contaminated packaging:  
Do not re-use empty containers

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)  
Not dangerous goods  
IMDG  
Not dangerous goods  
IATA  
Not dangerous goods

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## **SECTION 15. REGULATORY INFORMATION**

SARA 313 Notification:

The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).  
State Notification:

The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

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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.