# SAFETY DATA SHEET

**Date Printed:** 03/29/2024
**Date Revised:** 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Cesium Aluminate Sputtering Target

**Product Code:** CS-ALO-05-ST

**CAS Number:** N/A

**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

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin sensitisation (Category 1), H317
Carcinogenicity (Category 2), H351

GHS Label elements, including precautionary statements
Pictogram



Signal word: Warning
Hazard statement(s)
H317
May cause an allergic skin reaction.
H351
Suspected of causing cancer.
Precautionary statement(s)
P201
Obtain special instructions before use.
P202

Do not handle until all safety precautions have been read and understood.
P261
Avoid breathing dust/ fume/ gas/ mist/ Vapors/ spray.
P272
Contaminated work clothing should not be allowed out of the workplace.
P280
Wear protective gloves.
P302 + P352
IF ON SKIN: Wash with plenty of soap and water.
P308 + P313
IF exposed or concerned: Get medical advice/ attention.
P321
Specific treatment (see supplemental first aid instructions on this label).P333 + P313
If skin irritation or rash occurs: Get medical advice/ attention.
P363
Wash contaminated clothing before reuse.
P405
Store locked up.
P501
Dispose of contents/ container to an approved waste disposal plant.
Hazards not otherwise classified (HNOC) or not covered by GHS - none

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Cesium Aluminate
Formula: $Cs_6Al_2O_6$
CAS No.: N/A
No components need to be disclosed according to the applicable regulations.

---

## SECTION 4. FIRST AID MEASURES

Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11
Indication of any immediate medical attention and special treatment needed: no data available.

---

## SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture: no data available
Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.
Further information: no data available.

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing Vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.
Environmental precautions
Preventfurther leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

---

## SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place.
Specific end use(s)
Apart from the uses mentioned in section 1 no other specific uses are stipulated

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.
Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance
Form: powder
Odor: no data available
Odor Threshold: no data available
pH: no data available
Melting point/freezing point: no data available
Initial boiling point and boiling range: no data available
Flash point: no data available
EVaporation rate: no data available
Flammability (solid, gas): no data available
Upper/lower flammability or explosive limits: no data available
Vapor pressure: no data available
Vapor density: no data available
Relative density: no data available
Water solubility: no data available
Partition coefficient: n-octanol/water: no data available
Auto-ignition
temperature: no data available
Decomposition temperature: no data available
Viscosity: no data available
Explosive properties: no data available
Oxidizing properties: no data available
Other safety information: no data available

---

## SECTION 10. STABILITY AND REACTIVITY

Reactivity: no data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions: no data available
Conditions to avoid: no data available
Incompatible materials: Strong oxidizing agents

Hazardous decomposition products
Other decomposition products - no data available
Hazardous decomposition products formed under fire conditions. - Cesium oxides, Aluminum oxide
In the event of fire: see section 5

---

## SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity: no data available
Inhalation: no data available
Dermal:
no data available
no data available
Skin corrosion/irritation: no data available
Serious eye damage/eye irritation: no data available
Respiratory or skin sensitisation
Germ cell mutagenicity: no data available
Carcinogenicity
Limited evidence of a carcinogenic effect.
IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
no data available
no data available
Specific target organ toxicity -single exposure: no data available
specific target organ toxicity -repeated exposure: no data available
Aspiration hazard: no data available
Additional Information
RTECS: Not available

---

## SECTION 12. ECOLOGICAL INFORMATION

Toxicity: no data available
Persistence and degradability: no data available
Bioaccumulative potential: no data available
Mobility in soil: no data available
Results of PBT and vPvB assessment:
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects: no data available

## SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging: Dispose of as unused product.

## SECTION 14. TRANSPORT INFORMATION

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

## SECTION 15. REGULATORY INFORMATION

SARA 302
Components
SARA 302: No chemicals in this material are subject to the reporting requirementsof SARA Title III, Section 302.
SARA 313
Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312
Hazards
Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know
Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know
Components: Cesium aluminum oxide
New Jersey Right To Know
Components: Cesium aluminum oxide
California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 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.