

# SAFETY DATA SHEET

Date Printed: 05/24/2024

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (2N) 99% Cesium Hydroxide Solution

**Product Code:** CS-OH-02-SOL

**CAS Number:** 21351-79-1

**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)

Acute toxicity, Oral (Category 4), H302

Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318



Signal word: Danger

Hazard statement(s):

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Precautionary statement(s):

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse

mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

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

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Formula: HC<sub>8</sub>O

Molecular weight: 149.91 g/mol

CAS-No.21351-79-1

EC-No. 244-344-1

Acute Tox. 4

Skin Corr. 1B

Eye Dam. 1

H302, H314

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## SECTION 4. 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:

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed:

Do NOT induce vomiting. 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 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed:  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

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 firefighting if necessary.

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

Personal precautions, protective equipment and emergency procedures:  
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.  
For personal protection see section 8.

Environmental precautions:  
Do not let product enter drains.

Methods and materials for containment and cleaning up:  
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal

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

Precautions for safe handling:  
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.  
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities:  
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store under inert gas.  
Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

Specific end use(s):  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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

Control parameters:  
CAS-No. 21351-79-1  
Value: TWA; TWA; TWA; PEL

Control parameters: 2.000000 mg/m<sup>3</sup>; 2 mg/m<sup>3</sup>; 2.000000 mg/m<sup>3</sup>; 2 mg/m<sup>3</sup>  
Basis: USA. ACGIH Threshold Limit Values (TLV); USA. ACGIH Threshold Limit Values (TLV); USA. NIOSH Recommended Exposure Limits; California permissible exposure limits for chemical contaminants (Title 8, Article 107)

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:

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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 respirator with multipurpose combination (US) or type ABEK (EN 14387) 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:

Do not let product enter drains.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid

Odour No data available

Odour 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

Vapour pressure No data available

Vapour density No data available

Relative density 1.72 g/mL at 25 °C (77 °F)

Water solubility No data available

Partition coefficient: 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

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## 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:

No data available

Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Cesium/cesium oxides

Other decomposition products - No data available

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## SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitisation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity

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.

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.

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.

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

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

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## **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

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods:

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US):

UN number: 2681 Class: 8 Packing group: II

Proper shipping name: Cesium hydroxide solution

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG:

UN number: 2681 Class: 8 Packing group: II EMS-No: F-A, S-B

Proper shipping name: CAESIUM HYDROXIDE SOLUTION

IATA:

UN number: 2681 Class: 8 Packing group: II

Proper shipping name: Caesium hydroxide solution

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## SECTION 15. REGULATORY INFORMATION

### SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components:

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.

### Massachusetts Right To Know Components:

Cesium hydroxide

CAS-No. 21351-79-1

### Pennsylvania Right To Know Components

Water:

CAS-No. 7732-18-5

Cesium hydroxide:

CAS-No. 21351-79-1

### New Jersey Right To Know Components

Water:

CAS-No. 7732-18-5

Cesium hydroxide:

CAS-No. 21351-79-1

### 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.

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## 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.