

# SAFETY DATA SHEET

Date Printed: 05/15/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Lithium Azide Solution

**Product Code:** LI-AZ-05-SOL

**CAS Number:** 19597-69-4

**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

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 1), H330

Acute toxicity, Dermal (Category 3), H311

GHS Label elements, including precautionary statements

Pictogram



Signal word: Danger

Hazard statement(s)

H300 + H330

Fatal if swallowed or if inhaled

H311

Toxic in contact with skin.

Precautionary statement(s)

P260

Do not breathe dust/ fume/ gas/ mist/ Vapors/ spray.

P264

Wash skin thoroughly after handling.

P270

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

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves/ protective clothing.

P284

Wear respiratory protection.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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.

P310

Immediately call a POISON CENTER or doctor/physician.

P320

Specific treatment is urgent (see supplemental first aid instructions on this label).

P330

Rinse mouth.

P361

Remove/Take off immediately all contaminated clothing.

P363

Wash contaminated clothing before reuse.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

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

Rapidly absorbed through skin.

Contact with acids liberates very toxic gas.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Formula: LiN<sub>3</sub>

Molecular Weight: 48.96 g/mol

Hazardous components

Component: Lithium triazide

CAS-No. 19597-69-4

EC-No. 243-177-1

Classification

Acute Tox.2; H300 + H310 + H330

Concentration

10-30%

---

## **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.

Take victim immediately to hospital. 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 2.2) 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

Dry powder

Special hazards arising from the substance or mixture nitrogen oxides (NOx), Lithium oxides

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

Wear respiratory protection. Avoid breathing Vapors, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. 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. Do not flush with water.

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 inhalation of Vapor 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.

Never allow product to get in contact with water during storage. Do not store near acids.

Specific end use(s)

Apart from the uses mentioned in section 1.2 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

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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 respirator with multi-purpose 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

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: liquid

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  
not applicable  
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  
1.088 g/mL at 25 °C (77 °F)  
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  
Acid chlorides, Chlorinated solvents, Halogenated compounds, Metals, Acids, Dimethyl sulfoxide.  
(DMSO)  
Hazardous decomposition products  
Other decomposition products-no data available  
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

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.

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

Nausea, Headache, Vomiting, Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Lithium triazide)

---

## 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)  
UN number: 3287  
Class: 6.1  
Packing group: II  
Proper shipping name: Toxic liquid, inorganic, n.o.s. (Lithium triazide)  
Reportable Quantity (RQ):  
Marine pollutant: No  
Poison Inhalation Hazard: No

IMDG  
UN number: 3287  
Class: 6.1  
Packing group: II  
EMS-No: F-A, S-A  
Proper shipping name: TOXIC LIQUID, INORGANIC, N.O.S. (Lithium triazide)  
Marine pollutant: No

IATA  
UN number: 3287  
Class: 6.1  
Packing group: II  
Proper shipping name: Toxic liquid, inorganic, n.o.s. (Lithium triazide)

---

## SECTION 15. REGULATORY INFORMATION

SARA 302

Components

SARA 302: No chemicals in this material are subject to the reporting requirements of 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

Massachusetts Right To Know

Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Components

Water

CAS-No. 7732-18-5

Lithium triazide 19597-69-4

New Jersey Right To Know

Components

CAS-No.

Water 7732-18-5

Lithium triazide 19597-69-4

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.