

# SAFETY DATA SHEET

Date Printed: 05/09/2024

Date Revised: 01/15/2022

---

## SECTION 1. IDENTIFICATION

**Product Identifier:** (4N) 99.99% Barium Aluminide

**Product Code:** BA-ALI-04

**CAS Number:** 12672-79-6

**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

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The substance does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name / CAS number:

Barium Aluminide / 12672-79-6

---

## SECTION 4. FIRST AID MEASURES

### Inhalation:

Do not use mouth-to-mouth method if victim inhaled the substance. Call a physician or poison control center immediately.

### Skin Contact:

Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Wash clothing separately before reuse.

### Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing.

### Ingestion:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed:

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

### General Information:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

---

## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media None known.

Specific hazards arising from During fire, gases hazardous to health may be formed.  
the chemical

Special protective equipment Wear suitable protective equipment.  
and precautions for firefighters

Fire fighting Use water spray to cool unopened containers.  
equipment/instructions

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up:

Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions:

Avoid discharge into drains, water courses or onto the ground.

---

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

Precautions for safe handling:

Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities:

Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

---

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

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Control parameters Follow standard monitoring procedures.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves

Other

Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Other

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

---

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

Appearance

Physical state Solid.

Form Solid.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range

Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.  
Flammability limit - upper (%)  
Not available.  
Explosive limit - lower (%) Not available.  
Explosive limit - upper (%) Not available.  
Vapor pressure Not available.  
Vapor density Not available.  
Relative density Not available.  
Solubility(ies)  
Solubility (water) Not available.  
Partition coefficient (n-octanol/water)  
Not available.  
Auto-ignition temperature Not available  
Decomposition temperature Not available.  
Viscosity Not available.  
Other information  
Explosive properties Not explosive.  
Oxidizing properties Not oxidizing.

---

## SECTION 10. STABILITY AND REACTIVITY

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.  
Chemical stability Material is stable under normal conditions.  
Possibility of hazardous reactions Hazardous polymerization does not occur.  
Conditions to avoid Contact with incompatible materials.  
Incompatible materials None known.  
Hazardous decomposition products No hazardous decomposition products are known.

---

## SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure  
Inhalation Due to lack of data the classification is not possible.  
Skin contact Due to lack of data the classification is not possible.  
Eye contact Due to lack of data the classification is not possible.  
Ingestion Due to lack of data the classification is not possible.  
Symptoms related to the physical, chemical and toxicological characteristics  
Direct contact with eyes may cause temporary irritation.  
Information on toxicological effects  
Acute toxicity Not known.  
Skin corrosion/irritation Due to lack of data the classification is not possible.  
Serious eye damage/eye irritation Due to lack of data the classification is not possible.  
Respiratory or skin sensitization  
Respiratory sensitization Due to lack of data the classification is not possible.  
Skin sensitization Due to lack of data the classification is not possible.  
Germ cell mutagenicity Due to lack of data the classification is not possible.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. IARC Monographs. Overall Evaluation of Carcinogenicity  
Not listed.  
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
Not regulated.  
US. National Toxicology Program (NTP) Report on Carcinogens  
Not listed.  
Reproductive toxicity Due to lack of data the classification is not possible.  
Specific target organ toxicity -  
single exposure  
Due to lack of data the classification is not possible.  
Specific target organ toxicity -  
repeated exposure  
Due to lack of data the classification is not possible.  
Aspiration hazard Due to lack of data the classification is not possible.

---

## **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

---

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

### **Local disposal regulations**

Dispose in accordance with all applicable regulations.

### **Hazardous waste code**

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

### **Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

### **Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

---

## **SECTION 14. TRANSPORT INFORMATION**

DOT

UN number UN1564  
UN proper shipping name Barium compounds, n.o.s.  
Class 6.1(PGIII)  
Transport hazard class(es)  
Subsidiary risk -  
Label(s) 6.1  
Packing group III  
Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.  
Special precautions for user  
Special provisions IB8, IP3, T1, TP33  
Packaging exceptions 153  
Packaging non bulk 213  
Packaging bulk 240  
IATA  
UN number UN1564  
UN proper shipping name Barium compounds, n.o.s.  
Class 6.1(PGIII)  
Transport hazard class(es)  
Subsidiary risk -  
Label(s) 6.1  
Packing group III  
Environmental hazards No.  
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.  
IMDG  
UN number UN1564  
UN proper shipping name Barium compounds, n.o.s.  
Class 6.1(PGIII)  
Transport hazard class(es)  
Subsidiary risk -  
Label(s) 6.1  
Packing group III  
Marine pollutant No.  
Environmental hazards  
EmS Not available.  
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

---

## **SECTION 15. REGULATORY INFORMATION**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)  
Not regulated.  
CERCLA Hazardous Substance List (40 CFR 302.4)  
Not listed.  
SARA 304 Emergency release notification  
Not regulated.  
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  
Not regulated.  
Superfund Amendments and Reauthorization Act of 1986 (SARA)  
Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No

Pressure Hazard - No  
Reactivity Hazard - No  
Hazard categories  
SARA 302 Extremely hazardous substance  
Not listed.  
SARA 311/312 Hazardous Yes  
chemical  
SARA 313 (TRI reporting)  
Not regulated.  
Other federal regulations  
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List  
Not regulated.  
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)  
Not regulated.  
Safe Drinking Water Act Not regulated.

---

## 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.