

SAFETY DATA SHEET

1 PRODUCT AND SUPPLIER IDENTIFICATION

Product Name: Aluminum - shot, pellets, wire, rod, foil, sheet, target
Formula: Al
Supplier: Zhejiang Zhongjin Aluminum Co., Ltd
Cidong Industrial Zone, Cixi, 315300
Zhejiang, China
Telephone: 86-574-58583332
Fax: 86-574-58583301
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Recommended Uses: Scientific Research

2 HAZARDS IDENTIFICATION

GHS Classification (29 CFR 1910.1200): Not classified as hazardous
GHS Label Elements:
Signal Word: N/A
Hazard Statements: N/A
Precautionary Statements: N/A

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient: Aluminum
CAS#: 7429-90-5
%: 100
EC#: 231-072-3

4 FIRST AID MEASURES

General Measures: Under normal handling and use, exposure to solid forms of this material present few health hazards. Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.

INHALATION: Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

INGESTION: Rinse mouth with water. Do not induce vomiting. Seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing, brush material off skin, wash affected area with soap and water. Seek medical attention if symptoms develop or persist.

EYES: Flush eyes with lukewarm water, including under upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms develop or persist.

Most Important Symptoms/Effects, Acute and Delayed: Inhalation of aluminum dust or powder may cause irritation to the respiratory system. See section 11 for more information.

Indication of Immediate Medical Attention and Special Treatment: No other relevant information available.

5 **FIREFIGHTING MEASURES**

Extinguishing Media: Use Class D or other metal extinguishing agent on fines, dusts or molten metal. Use coarse water spray on chips and turnings.

Unsuitable Extinguishing Media: Do not use water in fighting fires around molten metal. Do not use halogenated extinguishing agents on small chips/fines.

Specific Hazards Arising from the Material: This product does not present fire or explosion hazards as shipped. Small chips, fine turnings and dust from processing may be readily ignitable. May emit toxic metal oxide fumes under fire conditions.

Special Protective Equipment and Precautions for Firefighters: Full face, self-contained breathing apparatus and full protective clothing when necessary.

6 **ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate respiratory and protective equipment specified in section 8. Avoid dust formation.

Methods and Materials for Containment and Cleaning Up: Sweep or scoop up. Place in properly labeled closed containers. Scrap can be collected for recycling.

Environmental Precautions: Do not allow to enter drains or to be released to the environment.

7 **HANDLING AND STORAGE**

Precautions for Safe Handling: Keep material dry. Avoid creating dust. Avoid breathing dust or fumes. Provide adequate ventilation if dusts are created. See section 8 for information on personal protection equipment.

Conditions for Safe Storage: Keep material dry. Store in a sealed container. Store in a cool, dry area. Protect from moisture, acids and strong oxidizers. See section 10 for more information on incompatible materials.

8 **EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Exposure Limits: Aluminum

OSHA/PEL: 15 mg/m³ total dust, 5 mg/m³ respirable fraction

ACGIH/TLV: 1 mg/m³ respirable

Engineering Controls: Whenever possible the use of local exhaust ventilation or other engineering

controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Respiratory Protection: If permissible levels are exceeded, use NIOSH approved dust respirator.

Eye Protection: Safety glasses

Skin Protection: Wear impermeable gloves, protective work clothing as necessary.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Solid in various forms

Color: Silvery metallic

Odor: Odorless

Odor Threshold: Not determined

pH: N/A

Melting Point: 660 oC

Boiling Point: 2467 oC

Flash Point: N/A

Evaporation Rate: N/A

Flammability: N/A

Upper Flammable Limit: N/A

Lower Flammable Limit: N/A

Vapor Pressure: 1 mm Hg @ 1284

Vapor Density: N/A

Relative Density (Specific Gravity): 2.702 g/cc

Solubility in H₂O: Insoluble

Partition Coefficient (n-octanol/water): Not determined

Autoignition Temperature: No data

Decomposition Temperature: No data

Viscosity: N/A

10 STABILITY AND REACTIVITY

Reactivity: No data

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: In the form of chips, fines or dust aluminum may react with water, acids, or alkalis to generate flammable hydrogen gas. Molten aluminum may have a violent reaction with water, strong oxidizers or metal oxides. Halogenated carbons, including halogenated fire extinguishing agents may react violently with finely divided or molten aluminum.

Conditions to Avoid: Avoid creating or accumulating fines or dusts.

Incompatible Materials: Oxidizing agents, acids, alkalis, halogenated compounds, iron oxide.

Reactions are more likely to occur when the metal is molten or in a finely divided state.

Hazardous Decomposition Products: Aluminum oxide fume, hydrogen.

11 TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, skin, eyes. Product as shipped does not present an inhalation hazard; however subsequent operations may create dusts or fumes which could be inhaled.

Symptoms of Exposure: May cause irritation if dusts or fumes are inhaled or swallowed. Fines/dusts may irritate skin and eyes.

Acute and Chronic Effects: There is strong evidence that aluminum (compounds) can cause irritation following exposure via either inhalation or injection. Modest evidence of an effect exists for reproductive toxicity following oral exposure, for neurological toxicity following either oral or injection exposure, and for bone toxicity following injection exposure. All other effects were judged to be supported by either limited evidence or no clear evidence at all.1

Acute Toxicity: No data

Carcinogenicity: NTP: Not identified as carcinogenic IARC: Not identified as carcinogenic

To the best of our knowledge the chemical, physical and toxicological characteristics of the substance are not fully known.

12 ECOLOGICAL INFORMATION

Ecotoxicity: No data

Persistence and Degradability: No data

Bioaccumulative Potential: No data

Mobility in Soil: No data

Other Adverse Effects: Do not allow material to be released to the environment without proper governmental permits. No further relevant information available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Product: Dispose of in accordance with Federal, State and Local regulations.

Packaging: Dispose of in accordance with Federal, State and Local regulations.

14 TRANSPORT INFORMATION

DOT/ADR/IATA/IMDG Regulations: Not regulated

UN Number: N/A

UN Proper Shipping Name: N/A

Transport Hazard Class: N/A

Packing Group: N/A

Marine Pollutant: No

Special Precautions: N/A

15 **REGULATORY INFORMATION**

TSCA Listed: All components are listed.

Regulation (EC) No 1272/2008 (CLP): N/A

Canada WHMIS Classification (CPR, SOR/88-66): N/A

HMIS Ratings: Health: 0 Flammability: 0 Reactivity: 0

NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

16 **OTHER INFORMATION**

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Sibio Aluminum shall not be held liable for any damages resulting from handling or from contact with the above product.

Prepared by: Sibio Aluminum

Revised/Reviewed: August 2014