FREEMAN Manufacturing & Supply Company

Safety Data Sheet
Aluminum Sand

Section 1 Identification

Product name: Aluminum Sand
Recommended use: Filler
Details of the supplier of the safety data sheet:

Freeman Manufacturing and Supply Company
1101 Moore Road, Avon, OH 44011
Phone (440) 934-1902
FAX (440) 934-7200

24 Hour Emergency Phone Number: (800) 424-9300

HMIS	
H	1
F	0
R	1
PPE	
Sec. 8	

Section 2 Hazards Identification

GHS Classification by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eye Damage/Irritation, Category 2B
Specific Target Organ Toxicity (Single Exposure) - Inhalation (Lungs), Category 3

OSHA Defined Hazards

Combustible Dust
Aggregate product is not easily ignited nor readily dispersed in air to form a combustible dust hazard. However, product may contain de minimis (<1.0%) concentration of Aluminum Dust. Under some conditions of handling or use, Aluminum Dust may be segregated and/or additional dust produced. Aluminum Dusts with a median particle diameter of 60 µm and smaller, can pose a combustible dust explosion hazard if dispersed in air

Label elements, including precautionary statements

Signal Word Warning

Hazard Statements
Causes eye irritation
May cause respiratory irritation
Segregated dust may form combustible dust concentrations in air.

Precautionary Statements
Use safety glasses with side shields.
A safety eye wash station should be in close proximity to work area.
Avoid breathing dust. Use only in a well-ventilated area.
If airborne dust cannot be avoided, use of NIOSH, or equivalent approved dust masks recommended.

Section 3 Composition/Information on Ingredients

Component	CAS Number	Weight %
Aluminum	7429-90-5	>92.0
Zinc	7440-66-6	<7.0
Copper	7440-50-8	<3.0
Magnesium	7439-95-4	<2.0

Section 3 Composition/Information on Ingredients continued

Aluminum is present as solid metal alloy(s). Any remaining metallic component is present inherent within the alloy(s) and not as an independent component/ingredient. Balance of ingredients are either non-hazardous, less than 1.0% in concentration, or less than 0.1% for Carcinogens, Reproductive Toxins, or Respiratory Sensitizers.

Section 4 First Aid Measures

Description of first aid measures

Eye Contact: Causes eye irritation by mechanical abrasion and/or foreign body in eye. Avoid rubbing eyes to minimize mechanical abrasion. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If particulate cannot be completely rinsed from eye or if eye irritation persists: Get medical advice/attention.

Inhalation: May cause respiratory irritation by inhalation of dust. If inhaled: Remove person to fresh air and keep comfortable for breathing. If respiratory irritation persists: Get medical advice/attention.

Ingestion: Under normal conditions of handling or use first-aid not required. If product gets in mouth: Rinse mouth with water. If swallowed: Call a doctor if you feel unwell.

Skin Contact: Under normal conditions of handling or use first-aid not required. If residue gets on skin, wash with soap and water.

Section 5 Fire-Fighting Measures

Suitable Extinguishing Media

Use D-powder, or dry sand

Unsuitable Extinguishing Media

Water, halons, ABC powder, carbon dioxide, foam

Special Hazards

Material is potentially explosive when loosened and dispersed in air. Do not allow a dust cloud to be formed. Avoid heat, sparks, and open flames. Eliminate the generation of static electricity. Aluminum powder will react with acids, bases, or water to form flammable hydrogen gas. Finely divided burning aluminum powder will react violently with water to form hydrogen gas.

Hazardous Combustion Products

Oxides of aluminum

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 Accidental Release Measures

Personal precautions

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

Methods for containment and clean up

Do not get water directly on material. Eliminate the generation of static electricity. Use natural bristle broom or brush to collect material into suitable container for disposal. Move containers away from spill to a safe area. Avoid forming dust clouds. .

Section 7 Handling and Storage

Precautions for safe handling

Avoid generating dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Do not eat, drink, or smoke when using this product. Use only with adequate ventilation. Dust can form an explosive mixture with air. Take precautionary measures against static charges. Use explosion-proof equipment and non-sparking tools. Empty containers may contain residues and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death.

Conditions for safe storage, including incompatibilities

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated place. Store in a cool, dry place. Keep separated from oxidizing agents, acids, alkalis, nitrates, alcohols, halogenated hydrocarbons, halogens, and water.

Section 8 Exposure Controls/Personal Protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum	TWA: 1 mg/m3 (respirable fraction)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Section 9 Physical and Chemical Properties

Appearance	Fine light gray solid/granules
Odor	Odorless
Odor Threshold	No information available
pH	Not applicable
Melting Point	660°C (1220°F)
VOC Content	0
Boiling Point	2327°C (4221°F)
Flash Point	Not applicable
Evaporation Rate	Not applicable

Section 9 Physical and Chemical Properties continued

Flammability (solid, gas)	Not applicable
Flammability or explosive limits, Upper	Not applicable
Flammability or explosive limits, Lower	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Density	2.7 g/cm^3
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	Not applicable
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable

Section 10 Stability and Reactivity

Reactivity

No decomposition if stored and applied as directed. Contact with water liberates highly flammable gases.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Avoid dust clouds to protect from potential hazard of combustible dust explosion. Avoid exposing product and any segregated dust to water. Protect from, or take appropriate precautions when, mixing product in liquid solutions, slurries, or gels that may be acidic or alkali as liberation of Hydrogen gas can occur. Protect from, or take appropriate precautions when, mixing product with certain metal oxides including Iron Oxide (e.g. mill scale, rust), Copper Oxide, etc. as such mixtures with a source of ignition can yield a highly exothermic thermite reaction. Will not polymerize.

Conditions to Avoid

Avoid improper storage

Incompatible Materials

Water, Acids, Alkalis, Oxidizers Including Certain Metal Oxides, Halogenated Compounds, Carbon Disulfide

Hazardous Decomposition Products

Metal Oxides, Hydrogen Gas

Section 11 Toxicological Information

Likely Routes of Exposure

Eye Contact, Inhalation

Information on toxicological effects

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	Causes eye irritation by mechanical abrasion
Respiratory or skin sensitization	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.

Section 11 Toxicological Information continued

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	May cause respiratory irritation
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available

Section 12 Ecological Information

Ecotoxicity	No information available.
Persistence and Degradability	Not biodegradable
Bioaccumulation/ Accumulation	No information available.
Mobility	No information available.

Section 13 Disposal Considerations

Disposal Methods

Dispose of product in accordance with local, state, and/or national regulations. When disposal is done through a third party contractor, provide the contractor with a copy of this SDS.

Containers and Packaging

Dispose of empty containers and packaging in accordance with local, state, and/or national regulations. Empty containers may contain residue of product including Aluminum Dust. Before reusing empty containers to hold any material other than product, thoroughly clean the container of any residue.

Section 14 Transport Information

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

Section 15 Regulatory Information

U.S. Federal Regulations

SARA 302: Not applicable

SARA 311/312: Aluminum Dust (RQ 10,000 lb.) Product exempt at de minimis (<1.0%) concentration

SARA 313: Aluminum (dust or fume only) is subject to reporting. Product exempt at de minimis (<1.0%) concentration

US State Regulations

California Proposition 65: ⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Section 15 Regulatory Information continued

Inventories

TSCA (USA): On the inventory, or in compliance with the inventory

DSL (Canada): All components of this product are on the Canadian DSL

Section 16 Other Information

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