

1. Identification

Product identifier	HIGH PURITY ALUMINUM
Other means of identification	
Synonym(s)	Aluminum Anodes, Aluminum Bar, Cast Aluminum Disc
Recommended use	Industrial use, metal processing and fabrication
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information Manufacturer	
Company :	Rotometals, Inc.
965 Estabrook St	
San Leandro CA 94577	
USA	
Telephone :	+1 800-779-1102
Fax :	+1 888-779-1102
Emergency Phone # :	+1-800-779-1102
Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Combustible dust
Label elements	
Hazard symbol	None.
Signal word	Warning
Hazard statement	The substance does not meet the criteria for classification. May form combustible dust concentrations in air.
Precautionary statement	
Prevention	Not available.
Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Storage	Keep dry.
Disposal	Reuse or recycle material whenever possible.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.
Emergency Information:	Rotometals, Inc 1-800-779-1102
Website:	For a current Safety Data Sheet, refer to Rotometals Website: www.Rotometals.com

2. Hazard(s) identification

Specific hazards

Small chips, fine turnings, and dust from processing may be readily ignitable.

Explosion/fire hazards may be present when (See Sections 5, 7 and 10 for additional information):

- Dust or fines are dispersed in air.
- Chips, dust or fines are in contact with water.
- Dust and fines are in contact with certain metal oxides (e.g., rust, copper oxide).
- Molten metal in contact with water/moisture or certain metal oxides (e.g., rust, copper oxide).

Dust and fumes from processing: Can cause irritation of the eyes, skin and respiratory tract. Health effects from elevated temperature processing (e.g., welding, melting): Acute exposure: Can cause the accumulation of fluid in the lungs and reduced ability of the blood to carry oxygen.

3. Composition/information on ingredients

Composition comments

Complete composition is provided below and may include some components classified as non-hazardous.

Substances Components CAS # Percent

Aluminum

7429-90-5

>99

Additional Information

Additional compounds which may be formed during processing are listed in Section 8.

4. First-aid measures

Eye contact

Dust and fumes from processing: Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

Skin contact

Dust and fumes from processing: Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily.

Inhalation

Dust and fumes from processing: Remove to fresh air. Check for clear airway, breathing, and presence of pulse. If breathing is difficult, provide oxygen. Loosen any tight clothing on neck or chest. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Consult a physician.

Ingestion

Not likely, due to the form of the product.

Most important symptoms/effects, acute and delayed

Dust and fumes from processing: Irritating to eyes, respiratory system and skin. See Section 11 of the SDS for additional information on health hazards.

Medical conditions aggravated by exposure

Asthma, chronic lung disease, and skin rashes.

Indication of immediate medical attention and special treatment needed

In case of shortness of breath, give oxygen.

General information

Dust and fume from processing: If exposed or concerned: get medical attention/advice.

5. Fire-fighting measures

Suitable extinguishing media

Use Class D extinguishing agents on fines, dust or molten metal.
Use coarse water spray on chips and turnings.
Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable extinguishing media

DO NOT USE halogenated extinguishing agents on small chips/fines.
DO NOT USE water in fighting fires around molten metal. Molten metal in contact with water/moisture: Moisture entrapped by molten metal can be explosive.

These fire extinguishing agents will react with the burning material.

Specific hazards arising from the chemical May be a potential hazard under the following conditions:

- Dust clouds may be explosive. Even a minor dust cloud can explode violently. Dust accumulation on the floor, ledges and beams can present a risk of ignition, flame propagation and secondary explosions.
- Chips, fines and dust in contact with water can generate flammable/explosive hydrogen gas. These gases could present an explosion hazard in confined or poorly ventilated spaces.
- Dust and fines in contact with certain metal oxides (e.g., rust, copper oxide). A thermite reaction, with considerable heat generation, can be initiated by a weak ignition source.
- Molten metal in contact with water/moisture or certain metal oxides (e.g., rust, copper oxide). Moisture entrapped by molten metal can be explosive. Contact of molten aluminum with certain metal oxides can initiate a thermite reaction. Finely divided metals (e.g., powders or wire) may have enough surface oxide to produce thermite reactions/explosions.

Special protective equipment and precautions for firefighters Firefighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Fire-fighting equipment/instructions Apply extinguishing media carefully to avoid creating airborne dust. If impossible to extinguish, protect surroundings and allow fire to burn itself out.

General fire hazards This product does not present fire or explosion hazards as shipped. Small chips, fine turnings, and dust from processing may be readily ignitable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Avoid contact with sharp edges or heated metal. Molten, heated and cold aluminum look alike; do not touch unless you know it is cold. Use personal protection recommended in Section 8 of the SDS.

Evacuation procedures None necessary. Molten material: If this material is released into a work area, evacuate the area immediately.

Methods and materials for containment and cleaning up Collect scrap for recycling. If molten: Use dry sand to contain the flow of material. All tooling (e.g., shovels or hand tools) and containers which come in contact with molten metal must be preheated or specially coated, rust free and approved for such use. Allow the spill to cool before remelting as scrap.

Environmental precautions No special environmental precautions required.

7. Handling and storage

Handling Avoid generating dust. Avoid contact with sharp edges or heated metal. Hot and cold aluminum are not visually different. Keep material dry.

Storage Store in a dry place. Keep material dry.

Requirements for Remelting of Scrap Material or Ingot

Molten metal and water can be an explosive combination. The risk is greatest when there is sufficient molten metal to entrap or seal off the water. Water and other forms of contamination on or contained in scrap or remelt ingot are known to have caused explosions in melting operations. While the products may have minimal surface roughness and internal voids, there remains the possibility of moisture contamination or entrapment. If confined, even a few drops of water can lead to violent explosions.

All tooling, containers, molds and ladles which come in contact with molten metal must be preheated or specially coated, rust free and approved for such use. Any surfaces that may contact molten metal (e.g., concrete) should be specially coated.

Drops of molten metal in water (e.g. from plasma arc cutting), while not normally an explosion hazard, can generate enough flammable hydrogen gas to present an explosion hazard. Vigorous circulation of the water and removal of the particles minimize the hazards.

During melting operations, the following minimum guidelines should be observed:

- Inspect all materials prior to furnace charging and completely remove surface contamination such as water, ice, snow, deposits of grease and oil or other surface contamination resulting from weather exposure, shipment, or storage.
- Store materials in dry, heated areas with any cracks or cavities pointed downwards.
- Preheat and dry large items adequately before charging into a furnace containing molten metal. This is typically done by use of a drying oven or homogenizing furnace. The drying cycle should bring the metal temperature of the coldest item of the batch to 400°F (200°C) and then hold at that temperature for 6 hours.

Thermite explosions have been reported when aluminum alloys were melted in furnaces used for alloying with lead, bismuth or other metals with low melting temperatures. These metals, when added as high purity ingots, can seep through cracks in furnace liners and become oxidized. During subsequent melts in the furnace, molten aluminum can contact these metal oxides resulting in a thermite explosion.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components

Type	Value	Form
Aluminum (CAS 7429-90-5)	5 mg/m3	Respirable fraction
	15 mg/m3	Total dust

Compounds Formed During Processing

Type	Value	Form
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	5 mg/m3	Respirable fraction.
	15 mg/m3	Total dust.
Nitric oxide (CAS 10102-43-9)	30 mg/m3	
	25 ppm	
Ozone (CAS 10028-15-6)	0.2 mg/m3	
	0.1 ppm	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material

Type	Value	Form
HIGH PURITY ALUMINUM	5 mg/m3	Respirable dust.
	15 mg/m3	Total dust.

Compounds Formed During Processing

Type	Value
Nitrogen dioxide (CAS 10102-44-0)	9 mg/m3
	5 ppm

ACGIH Compounds Formed	Type	Value	Form During Processing
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction, as Al
Ozone (CAS 10028-15-6)	TWA	0.2 ppm	(Heavy, moderate or light workloads (≤2 hours))
US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m3 & ppm			
Compounds Formed During Processing	Type	Value	Form
Nitric oxide (CAS 10102-43-9)	TWA	25 ppm	
Nitrogen dioxide (CAS 10102-44-0)	TWA	0.2 ppm	
US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m3, non-standard units			
Material	Type	Value	Form
HIGH PURITY ALUMINUM	TWA	1 mg/m3	Respirable fraction.
Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.
Alcoa Material	Type	Value	Form
HIGH PURITY ALUMINUM	TWA	3 mg/m3	Respirable fraction
		10 mg/m3	Total dust
Components	Type	Value	Form
Aluminum (CAS 7429-90-5)	TWA	3 mg/m3	Respirable fraction
		10 mg/m3	Total dust
Compounds Formed During Processing	Type	Value	Form
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

General

Personnel who handle and work with molten metal should utilize primary protective clothing like polycarbonate face shields, fire resistant tapper's jackets, neck shades (snoods), leggings, spats and similar equipment to prevent burn injuries. In addition to primary protection, secondary or day-to-day work clothing that is fire resistant and sheds metal splash is recommended for use with molten metal. Synthetic materials should never be worn even as secondary clothing (undergarments).

Appropriate engineering controls Dust and fumes from processing: Use with adequate explosion-proof ventilation to meet the limits listed in Section 8.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear a face shield when working with molten material. Wear safety glasses with side shields.

Skin protection

Hand protection Wear appropriate gloves to avoid any skin injury.

Other

The need for personal protective equipment should be based upon a hazard assessment and recommendations from health / safety professionals. Molten metal: Wear fire/flame resistant/retardant clothing. When handling hot material, use heat resistant gloves. Full Face Shield.

Respiratory protection Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8. Suggested respiratory protection: N95.

Thermal hazards Contact with molten material can cause thermal burns. Hot aluminum does not necessarily glow red. When material is heated, wear gloves to protect against thermal burns. Flame retardant protective clothing is recommended.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form Solid in various forms.
Color Silver colored.

Odor Odorless

Odor threshold Not applicable

pH Not applicable

Melting point/freezing point 1220 °F (660 °C)

Initial boiling point and boiling range Not applicable

4220.6 °F (2327 °C)

Flash point Not applicable

Evaporation rate Not applicable

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - upper (%) Not applicable

Flammability limit - lower (%) Not applicable

Explosive properties Dust clouds may be explosive under certain conditions.

Dust explosion properties

St class Very strong explosion.

Vapor pressure Not applicable
< 0 kPa at 25 °C
0.13 kPa at 1284 °C

Vapor density Not applicable

Relative density Not determined

Solubility(ies) Insoluble
Insoluble

Partition coefficient (n-octanol/water) Not applicable.
Not applicable

Auto-ignition temperature Not applicable

Decomposition temperature Not applicable

Viscosity Not applicable

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable under normal conditions of use, storage, and transportation.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Chips, fines, dust and molten metal are considerably more reactive with the following:

- Water: Slowly generates flammable/explosive hydrogen gas and heat. Generation rate is greatly increased with smaller particles (e.g., fines and dusts). Molten metal can react violently/explosively with water or moisture, particularly when the water is entrapped.
- Heat: Oxidizes at a rate dependent upon temperature and particle size.

Incompatible materials • Strong oxidizers: Violent reaction with considerable heat generation. Can react explosively with nitrates (e.g., ammonium nitrate and fertilizers containing nitrate) when heated or molten.

• Acids and alkalis: Reacts to generate flammable/explosive hydrogen gas. Generation rate is greatly increased with smaller particles (e.g., fines and dusts).

• Halogenated compounds: Many halogenated hydrocarbons, including halogenated fire extinguishing agents, can react violently with finely divided or molten aluminum.

• Iron oxide (rust) and other metal oxides (e.g., copper and lead oxides): A violent thermite reaction generating considerable heat can occur. Reaction with aluminum fines and dusts requires only very weak ignition sources for initiation. Molten aluminum can react violently with iron oxide without external ignition source.

• Iron powder and water: Explosive reaction forming hydrogen gas when heated above 1470°F (800°C).

Hazardous decomposition products

No hazardous decomposition products are known.

11. Toxicological information

Health effects associated with ingredients

Aluminum dust/fines and fumes: Low health risk by inhalation. Generally considered to be biologically inert (milling, cutting, grinding).

Health effects associated with compounds formed during processing

The following could be expected if welded, remelted or otherwise processed at elevated temperatures: Alumina

(aluminum oxide): Low health risk by inhalation. Generally considered to be biologically inert.

Welding, plasma arc cutting, and arc spray metalizing can generate ozone.

Ozone: Can cause irritation of eyes, nose and upper respiratory tract. Acute overexposures: Can cause shortness of breath, tightness of chest, headache, cough, nausea and narrowing of airways. Effects are reversible on cessation of exposure. Acute overexposures (high concentrations): Can cause respiratory distress, respiratory tract damage, bleeding and the accumulation of fluid in the lungs (pulmonary edema). Effects can be delayed up to 1-2 hours. Additional information: Studies (inhalation) with experimental animals have found genetic damage, reproductive harm, blood cell damage, lung damage and death.

Welding fumes: IARC/NTP: Listed as possibly carcinogenic to humans by IARC (Group 2B). Additional information: In one study, occupational asthma was associated with exposures to fumes from aluminum welding.

Plasma arc cutting of aluminum can generate oxides of nitrogen.

Oxides of nitrogen (NO and NO2): Can cause irritation of eyes, skin and respiratory tract. Acute overexposures: Can cause reduced ability of the blood to carry oxygen (methemaglobin). Can cause cough, shortness of breath, accumulation of fluid in the lungs (pulmonary edema) and death. Effects can be delayed up to 2-3 weeks.

Nitrogen dioxide (NO2): Chronic overexposures: Can cause scarring of the lungs (pulmonary fibrosis).

Information on likely routes of exposure

Eye contact Dust and fumes from processing: Can cause irritation.

Skin contact Dust and fumes from processing: Can cause irritation.

Inhalation Health effects from mechanical processing (e.g., cutting, grinding): Dust: Can cause irritation of the upper respiratory tract.

Additional health effects from elevated temperature processing (e.g., welding, plasma arc cutting):

Dust and fumes from processing: Can cause irritation of the respiratory tract. Acute exposure: Can cause the accumulation of fluid in the lungs (pulmonary edema) and reduced ability of the blood to carry oxygen (methemaglobin). Effects can be delayed up to 1-2 weeks. Chronic exposure: Can cause scarring of the lungs (pulmonary fibrosis).

Ingestion

Not relevant, due to the form of the product.

Symptoms related to the physical, chemical and toxicological characteristics

Health effects from mechanical processing (e.g., cutting, grinding): Dust: Can cause irritation of the upper respiratory tract.

Additional health effects from elevated temperature processing (e.g., if heated to decomposition): Dust and fumes: Can cause irritation of the respiratory tract. Acute exposure: Can cause the accumulation of fluid in the lungs (pulmonary edema) and reduced ability of the blood to carry oxygen (methemaglobin). Chronic exposure Can cause scarring of the lungs (pulmonary fibrosis).

Information on toxicological effects

Acute toxicity Not classified. Based on available data, the classification criteria are not met.

Components	Species	Test Results
Aluminum (CAS 7429-90-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 2.3 mg/l 7.6 mg/l
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
Compounds Formed During	Species Test Results Processing	

Aluminum oxide (non-fibrous) (CAS 1344-28-1)

Acute

Inhalation

LC50 Rat > 2.3 mg/l
7.6 mg/l

Oral

LD50 Rat > 5000 mg/kg

Nitric oxide (CAS 10102-43-9)

Acute

Inhalation

LC50 Rat 115 mg/l, 1 Hours
57.5 mg/l, 4 Hours

Nitrogen dioxide (CAS 10102-44-0)

Acute

Inhalation

LC50 Guinea pig 30 ppm, 1 Hours
Rat 88 ppm, 4 Hours

Skin corrosion/irritation Non-corrosive.

Serious eye damage/eye irritation Dust and fume from processing: May irritate eyes.

Respiratory or skin sensitization Not applicable.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Dust and fume from processing: May cause irritation. Not a skin sensitizer.

Germ cell mutagenicity Contains no ingredient listed as a mutagen.

Carcinogenicity Does not present any cancer hazards.

ACGIH Carcinogens

Aluminum (CAS 7429-90-5) A4 Not classifiable as a human carcinogen.
Aluminum oxide (non-fibrous) (CAS 1344-28-1) A4 Not classifiable as a human carcinogen.
Nitrogen dioxide (CAS 10102-44-0) A4 Not classifiable as a human carcinogen.
Ozone (CAS 10028-15-6) A4 Not classifiable as a human carcinogen.

Reproductive toxicity Does not present any reproductive hazards.

Specific target organ toxicity - single exposure Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity - exposure Not classified. Based on available data, the classification criteria are not met. **repeated**

Aspiration hazard Not an aspiration hazard.

Chronic effects Not applicable.

Further information None known.

12. Ecological information

Ecotoxicity This material is not expected to be harmful to aquatic life.

Product	Species	Test Results
HIGH PURITY ALUMINUM		
Aquatic Fish	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.16 mg/l, 96 hours

Components	Species	Test Results
Aluminum (CAS 7429-90-5)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		0.31 mg/l, 96 hours
		0.16 mg/l, 96 hours
		0.12 mg/l, 96 hours

13.

Compounds Formed During Processing	Species	Test Results
Nitrogen dioxide (CAS 10102-44-0)		
Aquatic		
Fish	LC50	Tench (Tinca tinca)
		19.6 mg/l, 96 hours
Ozone (CAS 10028-15-6)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		0.0081 - 0.0106 mg/l, 96 hours

Persistence and degradability The product contains inorganic compounds which are not biodegradable.

Bioaccumulative potential The product is not bioaccumulating.

Mobility in soil Not considered mobile.

Mobility in general Not considered mobile.

Other adverse effects None known.

Disposal considerations

Disposal instructions Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Waste codes RCRA Status: Not federally regulated in the U.S. if disposed of "as is."
RCRA waste codes other than described here may apply depending on use of the product. Status must be determined at the point of waste generation. Refer to 40 CFR 261 or state equivalent in the U.S.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport information

General Shipping Information	Basic Shipping Information	ID number	Proper shipping name	Hazard class	Packing group	General Shipping Notes
			Not regulated			

• When "Not regulated", enter the proper freight classification, SDS Number and Product Name onto the shipping paperwork.

Disclaimer

This section provides basic classification information and, where relevant, information with respect to specific modal regulations, environmental hazards and special precautions. Otherwise, it is presumed that the information is not available/not relevant

15. Regulatory information

US federal regulations In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

All electrical equipment must be suitable for use in hazardous atmospheres involving aluminum powder in accordance with 29 CFR 1910.307. The National Electrical Code, NFPA 70, contains guidelines for determining the type and design of equipment and installation which will meet this requirement.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard Immediate Hazard - Yes If particulates are generated during processing **categories** Delayed Hazard
 - Yes If particulates are generated during processing

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - Yes If molten

SARA 302 Extremely No hazardous substance**SARA 311/312 Hazardous chemical** Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Aluminum	7429-90-5	>99

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Aluminum (CAS 7429-90-5)

Aluminum oxide (non-fibrous) (CAS 1344-28-1)

US. New Jersey Worker and Community Right-to-Know Act

Aluminum (CAS 7429-90-5) 500 LBS

Aluminum oxide (non-fibrous) (CAS 1344-28-1) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

Aluminum (CAS 7429-90-5)

Aluminum oxide (non-fibrous) (CAS 1344-28-1)

US. Rhode Island RTK

Aluminum (CAS 7429-90-5)

Aluminum oxide (non-fibrous) (CAS 1344-28-1)

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Prepared By

Rotometals, Inc
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Creation Date

20-May-2015

Revision Date

20-May-2015

Print Date

20-May-2015

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

HIGH PURITY ALUMINUM

Hazard statement Precautionary statement

May form combustible dust concentrations in air.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Storage Keep dry.

Disposal

Reuse or recycle material whenever possible.

Warning

Supplemental information

Non-combustible as supplied. This product does not present fire or explosion hazards as shipped. Small chips, fine turnings and dust from processing may be readily ignitable.

Explosion/fire hazards may be present when:

- Dust or fines are dispersed in air.

- Chips, dust or fines are in contact with water.
- Dust and fines from processing are in contact with certain metal oxides (e.g., rust, copper oxide).
- Molten metal in contact with water/moisture or certain metal oxides (e.g., rust, copper oxide).

Dust and fume from processing: Can cause irritation of the eyes, skin and respiratory tract.

Health effects from elevated temperature processing (e.g., welding, melting): Acute overexposure: Can cause the accumulation of fluid in the lungs and reduced ability of the blood to carry oxygen. Effects can be delayed up to 1-2 weeks. Chronic overexposure: Can cause scarring of the lungs.

FIRE FIGHTING MEASURES: Use Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and turnings.

Apply extinguishing media carefully to avoid creating airborne dust, fines or particulate.

DO NOT USE halogenated extinguishing agents on small chips, dust, fines or particulate.

DO NOT USE water in fighting fires around molten metal.

These fire extinguishing agents will react with the burning material.

IN CASE OF SPILL: Collect scrap for recycling. Hot aluminum does not necessarily glow red. If molten: Use dry sand to contain the flow of material. All tooling (e.g., shovels or hand tools) and containers which come in contact with molten metal must be preheated or specially coated, rust free and approved for such use. Allow the spill to cool before remelting as scrap.