



# MATERIAL SAFETY DATA SHEET



## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Chemical Formula:** Mixture

**Product use:** Architectural panels, ad and signboard panels, specialty applications.

**Company:**

Piedmont Plastics  
5010 West W.T. Harris Blvd.  
Charlotte, NC 28269  
704-597-8200

**MSDS Code:** ACP2010

**Emergency Information:** Archer Liew(Email: archerliew@gmail.com Tel:+86-15021594489)

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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

CAS #	COMPONENT	PERCENT
Not Available	Aluminum Face Sheets	-
7429-90-5	Aluminum	>95
7439-95-4	Magnesium	<1.5
7439-96-5	Manganese	<1.5
Not Available	Polymeric Core	-
Proprietary	Thermoplastic polymer	<5
Proprietary	Fire retardant	<85
	Coatings	-
Not Available	Resins	<14
Not Available	Chromium (III) oxide	<1

## SECTION 3 - HAZARDS IDENTIFICATION

**Emergency Overview:** Solid, mixture, panels. Various colors. Odorless. Non-combustible as supplied. Small chips, fine turnings and dust from processing may be readily ignitable.

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

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

Dust and fume from processing can cause irritation of eyes, skin and upper respiratory tract. Contact with molten polymer can cause thermal burns. Combustion of the coatings can generate toxic and irritating gases.

## SECTION 3 - HAZARDS IDENTIFICATION (CONT.)

**Potential Health Effects:** The following statements summarize the health effects generally expected in cases of overexposures. User specific situations should be assessed by a qualified individual. Additional health information can be found in Section 11. The following health effects are not likely to occur unless sawing or cutting generates dust or unless material is heated to melting.

**Eyes:** Dust or fume from processing: Can cause irritation.

**Skin:** Dust or fume from processing: Can cause irritation. Contact with molten polymer can cause thermal burns.

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

**Chronic overexposures:** Can cause scarring of the lungs (pulmonary fibrosis), central nervous system damage, secondary Parkinson's disease and reproductive harm in males.

### Carcinogenicity and Reproductive Hazard

**Product as shipped:** Does not present any cancer or reproductive hazards.

Dust and fumes from mechanical processing: Does not present any cancer hazards. Can present a reproductive hazard for males (manganese).

### Medical Conditions Aggravated By Exposure to Product, Components or Compounds Formed During Processing

Dust or fume from processing: Asthma, chronic lung disease, skin rashes and secondary Parkinson's disease.

## SECTION 4 - FIRST AID MEASURES

### First Aid: Eyes

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

### First Aid: Skin

Dust or fume from processing: Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists.  
 Molten polymer: If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel material from skin.  
 Get medical treatment for thermal burns.

### First Aid: Inhalation

Dust or fume from processing: Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

## SECTION 5 - FIRE FIGHTING MEASURES

### Flammable/Combustible Properties

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

### Fire/Explosion

May be a potential hazard under the following conditions:

- Dust or fines dispersed in the air can 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, dust or fines in contact with water can generate flammable/explosive hydrogen gas. Hydrogen gas could present an explosion hazard in confined or poorly ventilated spaces.
- Dust or fines in contact with certain metal oxides (e.g., rust). A thermite reaction, with considerable heat generation, can be initiated by a weak ignition source.
- Molten metal in contact with water/moisture or other metal oxides (e.g., rust, copper oxide). Moisture entrapped by molten metal can be explosive. Contact of molten aluminum with other 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.

## SECTION 5: FIRE FIGHTING MEASURES (CONT.)

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

### Unsuitable Extinguishing Media

#### DO NOT USE:

- Halogenated agents on small chips, dusts or fines.
- Water around molten metal.

These agents will react with the burning material.

**Fire Fighting Equipment/Instructions:** Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**Small/Large Spill:** Collect scrap for recycling. If molten: Contain the flow using dry sand or salt flux as a dam. Do not use shovels or hand tools to halt the flow of molten aluminum. Allow the spill to cool before remelting as scrap.

## SECTION 7: HANDLING AND STORAGE

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### Handling/Storage:

Avoid generating dust. Avoid contact with sharp edges or heated metal. Hot and cold aluminum are not visually different. Hot aluminum does not necessarily glow red.

### Requirements for Processes Which Generate Dusts or Fines:

If processing of these products includes operations where dust or extremely fine particulate is generated, obtain and follow the safety procedures and equipment guides contained in Aluminum Association Bulletin F-1 and National Fire Protection Association (NFPA) brochures listed in Section 16. Cover and reseal partially empty containers. Use non-sparking handling equipment. Provide grounding and bonding where necessary to prevent accumulation of static charges during dust handling and transfer operations. (See Section 15).

Local ventilation and vacuum systems must be designed to handle explosive dusts. Dry vacuums and electrostatic precipitators must not be used. Dust collection systems must be dedicated to aluminum dust only and should be clearly labeled as such. Do not co-mingle fines of aluminum with fines of iron, iron oxide (rust) or other metal oxides.

Do not allow chips, fines or dust to contact water, particularly in enclosed areas.

Avoid all ignition sources. Good housekeeping practices must be maintained. Do not use compressed air to remove settled material from floors, beams or equipment.

### Requirements for Remelting Scrap Material:

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 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 and containers which come in contact with molten metal must be preheated or specially coated and rust free. Molds and ladles must be preheated or oiled prior to casting. 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.

## SECTION 7: HANDLING AND STORAGE (CONT.)

**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 or heavy 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 internal metal temperature of the coldest item of the batch to 400°F and then hold at that temperature for 6 hours.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** If dust is generated through processing: Use with adequate explosion-proof ventilation to meet the limits listed in Section 8, Exposure Guidelines.

### Personal Protective Equipment

**Respiratory Protection:** If dust is generated through processing: Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8, Exposure Guidelines. Suggested respiratory protection: N95.

**Eye Protection:** Wear safety glasses/goggles to avoid eye injury.

**Skin Protection:** Wear appropriate gloves to avoid any skin injury.

**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).

### Exposure Guidelines

**A: General Product Information:** Alupoly recommends Occupational Exposure Limits for Manganese of 0.05 mg/m<sup>3</sup> TWA (total particulate) and 0.02 mg/m<sup>3</sup> TWA (respirable fraction).

### B: Component Exposure Limits

#### Aluminum (7429-90-5)

ACGIH 10 mg/m<sup>3</sup> TWA (metal dust)

OSHA 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

#### Manganese (7439-96-5)

ACGIH 0.2 mg/m<sup>3</sup> TWA

OSHA 5 mg/m<sup>3</sup> Ceiling (fume)

#### Chromium (III) oxide (Not Available)

ACGIH 0.5 mg/m<sup>3</sup> TWA (as Cr)

OSHA 0.5 mg/m<sup>3</sup> TWA (as Cr)

## SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

**Physical State:** Solid

**Boiling Point:** Not Applicable

**Vapor Pressure:** Not applicable

**Solubility in Water:** None

**Density:** 1.10-2.27 g/cm<sup>3</sup> (0.040-0.075 lb/in<sup>3</sup>)

**Odor:** Oderless

**Specific gravity / density:** 742.6 kg/m<sup>3</sup>

**Appearance:** Various colors

**Melting Point:** Aluminum: 896-1220°F (480-660°C)  
 Polymer ~220°F (~104°C)

**Vapor Density:** Not applicable

**Specific Gravity:** See density

**pH Level:** Not applicable

**Odor Threshold:** Not applicable

**Octanol-Water:** Not applicable

## SECTION 10: CHEMICAL STABILITY & REACTIVITY INFORMATION

**Stability:** Stable under normal conditions of use, storage, and transportation as shipped.

**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.
- **Strong oxidizers:** Violent reaction with considerable heat generation. Can react explosively with nitrates (e.g., ammonium nitrate and fertilizers containing nitrate) particularly 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 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:** An explosive reaction forming hydrogen gas occurs when heated above 1470°F (800°C).

**Hazardous Decomposition:** Combustion of the coatings can generate carbon monoxide, carbon dioxide and aldehydes.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Health Effects Associated with Individual Ingredients

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

**Manganese dust or fumes:** Chronic overexposures can cause inflammation of the lung tissue, scarring of the lungs (pulmonary fibrosis), central nervous system damage, secondary Parkinson's disease and reproductive harm in males.

**Chromium (III) compounds:** Can cause irritation of eyes, skin and respiratory tract. IARC/NTP: Not classifiable as to their carcinogenicity to humans by IARC.

### Acute Toxicity of Ingredients/Formed Compounds

**A: General Product Information:** No information available for product.

#### B: Component Analysis - LD50/LC50

**Magnesium (7439-95-4):** Oral LD50 Rat: 230 mg/kg

**Manganese (7439-96-5):** Oral LD50 Rat: 9 g/kg

**Thermoplastic polymer (Proprietary):** Inhalation LC50 Mouse: 12 g/m3/30M

**Fire retardant (Proprietary):** Oral LD50 Rat: >5000 mg/kg

**C: Formed Compound Toxicity - LD50s/LC50s:** This material has no components listed.

### Carcinogenicity of Ingredients

#### A: Ingredient Carcinogenicity - IARC/NTP

COMPONENT	CAS	IARC 1	IARC 2A	IARC 2B	IARC 3	IARC 4	NTP K	NTP RA
Thermoplastic polymer	Proprietary	No	No	No	Yes	No	No	No
Chromium (III) oxide	Not Available	No	No	No	Yes	No	No	No

## SECTION 11: TOXICOLOGICAL INFORMATION (CONT.)

### B: Ingredient Carcinogenicity -ACGIH

#### Chromium (III) oxide (NotAvailable)

ACGIH A4 - Not Classifiable as a Human Carcinogen

### C: Ingredient References

#### Thermoplastic polymer (Proprietary)

IARC Supplement 7 [1987], Monograph 19 [1979]

#### Chromium (III) oxide (NotAvailable)

IARC Monograph 49 [1990], Supplement 7 [1987], Monograph 23 [1980], Monograph 2 [1973]

### Carcinogenicity of Compounds Formed During Processing

#### A: General Product Information

No new/additional compounds are expected to be formed during processing.

#### Descriptions of IARC and NTP Classifications

**IARC 1:** The agent is carcinogenic to humans. There is sufficient evidence that a causal relationship existed between exposure to the agent and human cancer.

**IARC 2A:** The agent is probably carcinogenic to humans. Generally includes agents for which there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

**IARC 2B:** The agent is possibly carcinogenic to humans. Generally includes agents for which there is limited evidence in humans and less than sufficient evidence in experimental animals.

**IARC 3:** The agent is not classifiable as to its carcinogenicity to humans. Generally includes agents for which there is inadequate evidence in humans and inadequate or limited evidence in experimental animals.

**IARC 4:** The agent is probably not carcinogenic to humans. Generally includes agents for which there is evidence suggesting lack of carcinogenicity in humans and in experimental animals.

**NTPK:** Known to be a human carcinogen.

**NTPRA:** Reasonably anticipated to be a human carcinogen.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

#### A: General Product Information

No information available for product.

#### B: Component Analysis - Ecotoxicity -Aquatic Toxicity

No ecotoxicity data was found for this product's components.

#### Environmental Fate

No information available for product.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:** Reuse or recycle material whenever possible.

### US EPA Waste Number & Descriptions

#### A: General Product Information

If reuse or recycle is not possible, then characterize in accordance with applicable regulations (40 CFR 261 or state equivalent in the U.S.) prior to disposal. TCLP testing is recommended for chromium.

#### B: Component Waste Numbers

RCRA waste codes other than described under Section A may apply depending on use of product. Refer to 40 CFR 261 or state equivalent in the U.S.



## SECTION 14: TRANSPORTATION INFORMATION

### SPECIAL TRANSPORTATION

	PSN #1	PSN #2	PSN #3	PSN #4
Notes:	(1)			
UN NA Number:	-			
Proper Shipping Name:	Not regulated			
Hazard Class:	-			
Packing Group:	-			
RQ:	-			
Other - Tech Name:	-			
Other - Marine Pollutant:	-			

#### Notes:

(1) When "Not regulated", enter the proper freight classification, "MSDS Number", and "Product Name" on the shipping paperwork.

Canadian Controlled Products Regulation PIN: Not regulated

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

#### A: General Product Information

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 that will meet this requirement. 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.

#### B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

##### Aluminum (7429-90-5)

SARA 313: 1.0 % de minimis concentration (dust or fume only)

##### Manganese (7439-96-5)

SARA 313: 1.0 % de minimis concentration

##### Chromium (III) oxide (Not Available)

**SARA 313:** 1.0 % de minimis concentration (except for chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the chromite ore processing residue (COPR). Chemical Category N090)

#### SARA 311/312 Physical and Health Hazard Categories:

**Immediate (acute) Health Hazard:** Yes, if particulates/fumes generated during processing.

**Delayed (chronic) Health Hazard:** Yes, if particulates/fumes generated during processing.

**Fire Hazard:** No

**Sudden Release of Pressure:** No

**Reactive:** Yes, if molten

#### State Regulations

#### A: General Product Information

No information available for product.



## SECTION 15: REGULATORY INFORMATION (CONT.)

### B: COMPONENT ANALYSIS - STATE

The following components appear on one or more of the following state hazardous substances lists:

COMPONENT	CAS#	CA	FL	MA	MN	NJ	PA
Aluminum	7429-90-5	Yes	No	Yes	Yes	Yes	Yes
Magnesium	7439-95-4	Yes	No	Yes	No	Yes	Yes
Manganese	7439-96-5	Yes	No	Yes	Yes	Yes	Yes
Chromium(III) oxide	Not Available	No	No	Yes	Yes	Yes	No

### OTHER REGULATIONS

#### A: General Product Information

Material meets the criteria for inclusion in WHMIS D2A.

#### B: Component Analysis -WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

COMPONENT	CAS#	MINIMUM CONCENTRATION
Aluminum	7429-90-5	1 %
Manganese	7439-96-5	1 %
Chromium(III) oxide	Not Available	1 %

### C: COMPONENT ANALYSIS – INVENTORY

COMPONENT	CAS#	TSCA	DSL	EINECS	AUST	MITI
Aluminum	7429-90-5	Yes	Yes	Yes	Yes	No
Magnesium	7439-95-4	Yes	Yes	Yes	Yes	No
Manganese	7439-96-5	Yes	Yes	Yes	Yes	No
Thermoplastic polymer	Proprietary	Yes	Yes	No	Yes	Yes
Fire retardant	Proprietary	Yes	Yes	Yes	Yes	Yes
Chromium(III) oxide	Not Available	Yes	Yes	Yes	Yes	Yes

### INVENTORY INFORMATION

All additional components not identified above are listed on the TSCA Inventory.

**MITI Inventory:** Pure metals are not specifically listed by CAS or MITI number on the MITI Inventory. However, the class of compounds for each of these metals is listed.

## SECTION 16: OTHER INFORMATION

### MSDS History

Original: April 12, 2010

### MSDS Status

04/12/2010: New MSDS.

### Prepared By

Piedmont Plastics

## SECTION 16: OTHER INFORMATION (CONT.)

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### Other Information

- Aluminum Association's Bulletin F-1, "Guidelines for Handling Aluminum Fines Generated During Various Aluminum Fabricating Operations." The Aluminum Association, 1525 Wilson Boulevard, Suite 600, Arlington, Virginia 22209, [www.aluminum.org](http://www.aluminum.org).
- Aluminum Association, "Guidelines for Handling Molten Aluminum, The Aluminum Association, 1525 Wilson Boulevard, Suite 600, Arlington, Virginia 22209, [www.aluminum.org](http://www.aluminum.org).
- NFPA 65, Standard for Processing and Finishing of Aluminum (NFPA phone: 800-344-3555)
- NFPA 651, Standard for Manufacture of Aluminum and Magnesium Powder
- NFPA 70, Standard for National Electrical Code (Electrical Equipment, Grounding and Bonding)
- NFPA 77, Standard for Static Electricity
- Guide to Occupational Exposure Values-2007, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).
- NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, February 2004.
- Patty's Industrial Hygiene and Toxicology: Volume II: Toxicology, 4th ed., 1994, Patty, F. A.; edited by Clayton, G. D. and Clayton, F. E.: New York: John Wiley & Sons, Inc.

## KEY LEGEND

- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **AICS:** Australian Inventory of Chemical Substances
- **CAS:** Chemical Abstract Service
- **CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act
- **CFR:** Code of Federal Regulations
- **CPR:** Cardio-pulmonary Resuscitation
- **DOT:** Department of Transportation
- **DSL:** Domestic Substances List (Canada)
- **EINECS:** European Inventory of Existing Commercial Chemical Substances
- **EPA:** Environmental Protection Act
- **IARC:** International Agency for Research on Cancer
- **LC50:** Lethal concentration (50 percent kill)
- **LCLo:** Lowest published lethal concentration
- **LD50:** Lethal dose (50 percent kill)
- **LDLo:** Lowest published lethal dose
- **LFL:** Lower Flammable Limit
- **MITI:** Ministry of International Trade & Industry
- **NFPA:** National Fire Protection Association
- **NIOSH:** National Institute for Occupational Safety and Health
- **NORM:** Naturally Occurring Radioactive Materials
- **NTP:** National Toxicology Program
- **OEL:** Occupational Exposure Limit
- **OSHA:** Occupational Safety and Health Administration
- **PEL:** Permissible Exposure Limit
- **PIN:** Product Identification Number
- **PSN:** Proper Shipping Name
- **RCRA:** Resource Conservation and Recovery Act
- **SARA:** Superfund Amendments and Reauthorization Act
- **STEL:** Short Term Exposure Limit
- **TCLP:** Toxic Chemicals Leachate Program
- **TDG:** Transportation of Dangerous Goods
- **TLV:** Threshold Limit Value
- **TSCA:** Toxic Substance Control Act
- **TWA:** Time Weighted Average
- **UFL:** Upper Flammable Limit
- **WHMIS:** Workplace Hazardous Materials Information System
- **atm:** atmosphere
- **cm:** centimeter
- **g, gm:** gram
- **in:** inch
- **kg:** kilogram
- **lb:** pound
- **m:** meter
- **mg:** milligram
- **ml, ML:** milliliter
- **mm:** millimeter
- **mppcf:** million particles per cubic foot
- **ppb:** parts per billion
- **ppm:** parts per million
- **psia:** pounds per square inch absolute
- **u:** micron
- **ug:** microgram

INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED, CAN BE MADE.

*This is the end of MSDS # ACP2010*

## CAUTION

**Physical Hazards:** Non-combustible as supplied. Small chips, fine turnings and dust may ignite readily. Explosion potential may be present when: (1) dusts or fines are dispersed in the air, (2) fines, dust or molten aluminum are in contact with certain metal oxides (e.g. rust) or (3) chips, fines, dust or molten aluminum are in contact with water or moisture. Dust and fume from processing can cause irritation of the eyes, skin, and upper respiratory tract. Combustion of coatings can generate toxic and irritating gases.

**Health Hazards:** Health effects generally expected in cases of overexposures:

**Eyes:** Dust or fume from processing: Can cause irritation.

**Skin:** Dust or fume from processing: Can cause irritation. Contact with molten polymer can cause thermal burns.

**Inhalation:** Health effects from mechanical processing (e.g., cutting, grinding): Can cause irritation of upper respiratory tract. Chronic overexposures: Can cause scarring of the lungs (pulmonary fibrosis), central nervous system damage, secondary Parkinson's disease and reproductive harm in males.

**Precautions:** Avoid generating dust. Avoid contact with sharp edges or heated material. Use with adequate explosion-proof ventilation. Wear appropriate eye and skin protection to prevent injury. Use appropriate respiratory protection (N95) if exposures exceed the permissible limits.

### FirstAid (Dust from processing):

**Eyes:** Flush eyes with plenty of water or saline for at least 15 minutes. Consult a physician.

**Skin:** Wash skin with soap and water for at least 15 minutes. Consult a physician if irritation persists. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel material from skin. Get medical treatment for thermal burns.

**Inhalation:** Remove to fresh air. If unconscious or severely injured, check for clear airway, breathing and presence of pulse. Perform CPR if there is no pulse or respiration. Consult a physician.

**Fire fighting:** Use Class D extinguishing agents on dusts or fines. Use coarse water spray on chips and turnings. Do NOT use halogenated agents on small chips, dusts or fines; water around molten metal. These agents will react with the burning material.

**Read Alupoly Material Safety Data Sheet No. for more information about use and disposal.**

### Emergency Phone:

INGREDIENTS:	CAS NUMBERS:	INGREDIENTS:	CAS NUMBERS:
Aluminum	(7429-90-5)	Thermoplastic polymer	(--)
Magnesium	(7439-95-4)	FIRE RETARDANT	(--)
Manganese	(7439-96-5)	*Coatings	(--)

*\*Include Resins and Chromium (III) oxide.*