1. Product and Company Identification

Material Name: REYNOBOND ALUMINUM COMPOSITE MATERIAL

MSDS Number: 1426

CAS Number: Mixture

Product use: Architectural/building materials

Manufacturer information:
Alcoa Inc.
201 Isabella Street
Pittsburgh, PA 15212-5858 US
Health and Safety Email: accmsds@alcoa.com
Health and Safety Fax: +1-412-553-4822
Health and Safety Tel: +1-412-553-4649

Alcoa Architectural Products
1, rue du Ballon
Merxheim, France 68500
Tel: +00 33(0)3 89 74 46 00

Reynolds Metals Company
Alcoa Architectural Products
50 Industrial Boulevard
Eastman, GA 30123
Tel: +1-478-374-4746

Emergency Information
USA: Chemtrec: +1-703-527-3887 +1-800-424-9300 (24 Hour Emergency Telephone, multiple languages spoken); ALCOA: +1-412-553-4001 (24 Hour Emergency Telephone, only English spoken)

Website
For a current Material Safety Data Sheet, refer to Alcoa websites: www.alcoa.com or internally at my.alcoa.com EHS Community

2. Hazards Identification

Emergency overview
Solid, 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 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 from processing: Can cause irritation of the eyes, skin and upper respiratory tract. Contact with molten polymer can cause thermal burns. Combustion of the coatings can generate toxic and irritating gases.

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 from processing: Can cause irritation.

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

Inhalation
Dust from processing: Can cause irritation of the 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.

Medical conditions aggravated by exposure to product
Dust from processing: Asthma, chronic lung disease, Secondary Parkinson's disease and skin rashes.
3. Composition / Information on Ingredients

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Aluminum Face Sheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&lt;60</td>
</tr>
<tr>
<td>Magnesium</td>
<td>7439-95-4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

B. Polymeric Core

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermoplastic polymer</td>
<td>Proprietary</td>
<td>&lt;45</td>
</tr>
<tr>
<td>Fire retardant</td>
<td>Proprietary</td>
<td>&lt;20</td>
</tr>
<tr>
<td>Aramid polymer</td>
<td>Proprietary</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

C. Coatings

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin</td>
<td>Various</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Colorant</td>
<td>Various</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures

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

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

Inhalation
Dust 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.

5. Fire Fighting Measures

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

Fire / Explosion Hazards
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.

Extinguishing media

Suitable extinguishing media
Use Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and turnings.

Unsuitable extinguishing media
DO NOT USE halogenated extinguishing agents on small chips/fines. DO NOT USE water in fighting fires around molten metal. These fire extinguishing agents will react with the burning material.

Protection of firefighters

Protective equipment for firefighters
Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.
6. Accidental Release Measures

**Personal precautions**
Avoid contact with sharp edges. Wear protective gloves.

**Environmental precautions**
No special environmental precautions required.

**Spill or leak procedure**
Collect scrap for recycling.
If molten: Contain the flow using dry sand or salt flux as a dam. All tooling (e.g., shovels or hand tools) and containers which come in contact with molten metal must be preheated or specially coated and approved for such use. Allow the spill to cool before remelting as scrap.

**Evacuation procedures**
None necessary.

**Methods for cleaning up**
No specific clean-up procedure noted.

7. Handling and Storage

**Handling**
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 this product generates dust or if 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.

Use non-sparking handling equipment, tools and natural bristle brush. Cover and reseat partially empty containers. Provide grounding and bonding where necessary to prevent accumulation of static charges during metal 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, unless specifically approved for use with flammable/explosive dusts. 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 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

Engineering controls

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

Occupational exposure limits

<table>
<thead>
<tr>
<th>U.S. - OSHA</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>TWA</td>
<td></td>
<td>5 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td>(total dust)</td>
<td></td>
</tr>
<tr>
<td>Fire retardant</td>
<td>TWA</td>
<td></td>
<td>5 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td>(total dust)</td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td>Ceiling</td>
<td></td>
<td>5 mg/m³</td>
<td>(fume)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alcoa</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>TWA</td>
<td></td>
<td>10 mg/m³</td>
<td>(inhalable)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td>Fire retardant</td>
<td>TWA</td>
<td></td>
<td>3 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>(inhalable)</td>
</tr>
<tr>
<td>Manganese</td>
<td>TWA</td>
<td></td>
<td>0.02 mg/m³</td>
<td>(respirable fraction, as Mn)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.05 mg/m³</td>
<td>(total dust, as Mn)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>TWA</td>
<td></td>
<td>1 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td>Fire retardant</td>
<td>TWA</td>
<td></td>
<td>1 mg/m³</td>
<td>(respirable fraction, as Al)</td>
</tr>
<tr>
<td>Manganese</td>
<td>TWA</td>
<td></td>
<td>0.2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Personal protective equipment

Eye / face protection

Safety glasses with full side shields or goggles recommended.

Skin protection

Wear appropriate gloves to avoid any skin injury.

Respiratory protection

Dust from 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. Suggested respiratory protection: N95.

General

Personnel who handle and work with molten metal should utilize primary protective clothing like polycarbonate face shields, fire resistant taper'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).

9. Physical & Chemical Properties

Form

Solid, panels.

Appearance

Various colors

Boiling point

Not applicable

Melting point

896 - 1220 °F (480 - 660 °C) Aluminum; Polymer ~220°F (~104°C)

Flash point

Not applicable

Auto-ignition temperature

Not applicable

Flammability limits in air, lower, % by volume

Not applicable

Flammability limits in air, upper, % by volume

Not applicable

Vapor pressure

Not applicable

Vapor density

Not applicable

Solubility (water)

Insoluble

Density

1.1 - 2.27 g/cm³ (0.040 - 0.082 lb/in³)

pH

Not applicable
Odor: Odorless
 Partition coefficient (n-octanol/water): Not applicable

10. Chemical Stability & Reactivity Information

Chemical stability: Stable under normal conditions of use, storage, and transportation.
Conditions to avoid: None known.
Incompatible materials: Strong acids and oxidizing agents
Hazardous decomposition products: Combustion of the coatings can generate carbon monoxide, carbon dioxide and aldehydes.
Possibility of hazardous reactions: Chips, fines, dust and molten metal are considerably more reactive with the following:
- Water: Slowly generates flammable and explosive hydrogen gas and heat. Generation rate is greatly increased with smaller particles (e.g., fines and dusts). Water/aluminum mixtures may be hazardous when confined.
- 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) 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.
- Iron powder and water: Explosive reaction forming hydrogen gas when heated above 1470°F (800°C).

Hazardous polymerization: Will not occur.

11. Toxicological Information

Health effects associated with ingredients
The following health effects are not likely to occur unless sawing or cutting generates dust or unless material is heated to melting.

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 tissues, scarring of the lungs (pulmonary fibrosis), central nervous system damage, Secondary Parkinson’s Disease and reproductive harm in males.

Fire retardant: Low health risk by inhalation. Generally considered to be biologically inert.

Considering the physical and chemical properties of aramid polymer and the fact that aramid polymer products in normal use represent minimal risk to human health, health hazards from fiber exposures secondary to handling aramid polymers are not expected to pose a significant risk to users.

When the paint is dried and cured, the colorants/pigments in this material are bound into the cured resin and will not be released through skin contact or under anticipated conditions of use. However, if the cured material is processed in such a manner (i.e., grinding) that large quantities of fine dusts are generated or the cured material is burned, a potential for exposure to dust containing the colorants/pigments may be created.

Health effects associated with compounds formed during processing
No new/additional compounds are expected to be formed during processing.

Component analysis - LD50
No information available for product.

Components

| Toxicology Data - Selected LD50s and LC50s |  |
|------------------------------------------|  |
| Fire retardant (Proprietary)            | Oral LD50 Rat >5000 mg/kg |
| 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 30 min |

Carcinogenicity
None of this product’s components are listed by ACGIH, IARC or NTP.
12. Ecological Information

General Product Information
No information available for product.

Environmental Fate
No data available for product.

13. 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.

14. Transport Information

General Shipping Information

Basic shipping description:
- UN number
- Proper shipping name: Not regulated
- Hazard class
- Packing group

General Shipping Notes
• When "Not regulated", enter the proper freight classification, MSDS Number and Product Name onto the shipping paperwork.

15. Regulatory Information

US federal regulations
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.

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.

State regulations
WARNING: This product contains a chemical known to the State of California to cause cancer.

Components

U.S. - CERCLA/SARA - Section 313 - Emission Reporting
Aluminum (7429-90-5) 1.0 % de minimis concentration (dust or fume only)
Manganese (7439-96-5) 1.0 % de minimis concentration

State regulations
WARNING: This product contains a chemical known to the State of California to cause cancer.

Components

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances
Aluminum (7429-90-5) Present
Magnesium (7439-95-4) Present
Manganese (7439-96-5) Present

U.S. - Massachusetts - Right To Know List
Aluminum (7429-90-5) Present
Magnesium (7439-95-4) Present
Manganese (7439-96-5) Present

U.S. - Minnesota - Hazardous Substance List
Aluminum (7429-90-5) Present (dust)
Manganese (7439-96-5) Present (as Mn)
Components

U.S. - New Jersey - Right to Know Hazardous Substance List
Aluminum (7429-90-5) sn 0054
Magnesium (7439-95-4) sn 1136
Manganese (7439-96-5) sn 1155 (dust and fume)

U.S. - Pennsylvania - RTK (Right to Know) List
Aluminum (7429-90-5) Environmental hazard
Magnesium (7439-95-4) Present
Manganese (7439-96-5) Environmental hazard

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
- Immediate Hazard: Yes, If particulates/fumes generated during processing
- Delayed Hazard: Yes, If particulates/fumes generated during processing
- Fire Hazard: No
- Pressure Hazard: No
- Reactivity Hazard: Yes, If molten

Inventory status

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

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

Inventory information
Japan - ENCS Inventory: Pure metals are not specifically listed by CAS or ENCS number. The class of compounds for each of these metals is listed on the ENCS inventory.

16. Other Information

MSDS History
- Origination date: January 25, 2008
- Supersedes: April 25, 2011
- Revision date: May 18, 2011

MSDS Status
May 18, 2011: Change(s) in Section: 2, 3, 8, 10, 11, 12, and 13.
April 25, 2011: New format.
January 25, 2008: New MSDS.

Prepared By
Hazardous Materials Control Committee
Preparer: Jim Perriello, +1-480-278-6928/Jon N. Peace, +1-412-553-2293

MSDS System Number
214550
Other information

- Guide to Occupational Exposure Values 2010, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- NFPA 484, Standard for Combustible Metals (NFPA phone: 800-344-3555)
- NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids
- NFPA 70, Standard for National Electrical Code (Electrical Equipment, Grounding and Bonding)
- NFPA 77, Standard for Static Electricity

Key/Legend:

ACGIH American Conference of Governmental Industrial Hygienists
AICS Australian Inventory of Chemical Substances
CAS Chemical Abstract Services
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)
EC Effective Concentration
ED Effective Dose
EINECS European Inventory of Existing Commercial Chemical Substances
ENCS Japan - Existing and New Chemical Substances
EWC European Waste Catalogue
EPA Environmental Protective Agency
IARC International Agency for Research on Cancer
LC Lethal Concentration
LD Lethal Dose
MAK Maximum Workplace Concentration (Germany) "maximale Arbeitsplatz-Konzentration"
NDSL Non-Domestic Substances List (Canada)
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OEL Occupational Exposure Limit
OSHA Occupational Safety and Health Administration
PIN Product Identification Number
PMCC Pensky Marten Closed Cup
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
SIMDUT Système d'Information sur les Matières Dangereuses Utilisées au Travail
STEL Short Term Exposure Limit
TCLP Toxic Chemicals Leachate Program
TDG Transportation of Dangerous Goods
TLV Threshold Limit Value
TSCA Toxic Substances Control Act
TWA Time Weighted Average
WHMIS Workplace Hazardous Materials Information System

m meter, cm centimeter, mm millimeter, in inch,
g gram, kg kilogram, lb pound, µg microgram,
ppm parts per million, ft feet

*** End of MSDS ***

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.
**REYNOBOND ALUMINUM COMPOSITE MATERIAL**

**WARNING**

Non-combustible as supplied. 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, fines or dust 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 from processing: Can cause irritation of the eyes, skin and upper respiratory tract. Chronic overexposures: Can cause scarring of the lungs, central nervous system damage, secondary Parkinson's disease and reproductive harm in males.

Contact with molten polymer can cause thermal burns. Combustion of the coatings can generate toxic and irritating gases.

<table>
<thead>
<tr>
<th><strong>FIRST AID</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>Dust from processing: Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>Dust from processing: Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists. Molten polymer: If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Get medical treatment for thermal burn.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Dust 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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FIRE FIGHTING</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suitable extinguishing media</strong></td>
<td>Use Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and turnings.</td>
</tr>
<tr>
<td><strong>Extinguishing media which must not be used for safety reasons</strong></td>
<td>DO NOT USE halogenated extinguishing agents on small chips/fines. DO NOT USE water in fighting fires around molten metal. These fire extinguishing agents will react with the burning material.</td>
</tr>
</tbody>
</table>

| **SPILL PROCEDURES** | Collect scrap for recycling. |
| **Spill or leak procedure** |  |

<table>
<thead>
<tr>
<th><strong>HANDLING AND STORAGE</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Handling</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

See Alcoa Material Safety Data Sheet No. 1426 for more information about use and disposal. Emergency Phone: +1-412-553-4001.

Contains:

- Aluminum 7429-90-5
- Magnesium 7439-95-4
- Manganese 7439-96-5
- Thermoplastic polymer Proprietary
- Fire retardant Proprietary
- Aramid polymer Proprietary
- Resin Various
- Colorant Various

Alcoa Inc.
201 Isabella Street, Pittsburgh PA 15212-5858 United States