

SAFETY DATA SHEET

According to the Hazard Communication Standard (CFR29 1910.1200)

SDS Name: Coated Aluminum Coil

Spectra SDS Number: 100001-02.1

SDS Created: August 1, 2015

Last Revised Date: September 8, 2016

Page 1 of 6

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chemical Formula: Mixture

Product Name: Coated Aluminum Alloy

Product Code: Varies dependent upon size and color

Synonym(s): Alloys Series 3105, 3004

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance/mixture: Exterior residential and commercial rainware

1.3. Details of the supplier of the safety data sheet

Spectra Metal Sales, Inc

P.O. Box 43167

Atlanta, GA 30336

404-344-4305

1.4. Emergency Telephone Number: 800-299-5305

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This mixture does not meet the criteria as hazardous to health or environment as shipped. However, fust and fumes from processing can cause potential irritation of the eyes, skin and upper respiratory tract. See section 4 for additional health information should such processing occur.

Specific target organ toxicity – Repeated exposure/inhalation of dust

2.2. Label elements



2.2.1 Hazard Pictograms (GHS-US): GHS08

2.2.2 Signal Word (GHS-US): Warning

2.2.3 Hazard Statements (GHS-US): May cause damage to organs through prolonged or repeated exposure.

2.2.4 Precautionary Statements (GHS-US): Do not breathe dust/fume/gas/mist/vapors/spray. Get medical advice/attention if you feel unwell. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other Hazards

Non-combustible as supplied. 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.

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Page 2 of 6

SECTION 3: Composition / Ingredients

3.1 Composition: Aluminum alloys are comprised of various combinations of the elements shown. Complete composition may include some components classified as non-hazardous.

3.1.1:	Alloys	CAS Number	% by Weight
	Aluminum	7429-90-5	> 82 %
	Magnesium	1309-48A	< 1.5 %
	Manganese	7439-96-5	< 1.5%
	Iron	1309-37-1	< 1.0%
	Silicon	7440-21-3	< 1.0 %
	Chromium	7440-47-3	< 0.5 %
	Copper	7440-50-8	< 0.5 %
	Zinc	7440-66-6	< 0.5 %

3.1.2: Coatings

Coatings may include polyester, acrylic, or fluoropon (kynar)* 0-10%

** All hazardous solvents are heat removed out of the coatings during the manufacturing process.*

SECTION 4: First Aid Measures

4.1 General information: All incidences described below are due to potential dust and/or fumes generated while processing this product.

4.2 Eye contact Flush eyes with cold tap water or a saline eye wash solution for at least 15 minutes. Contact a physician if symptoms persist.

4.3 Skin contact Wash with soap and water for at least 15 minutes. Seek medical attention if irritation develops or persists.

4.4 Inhalation Remove to fresh air. Check for clear airway, breathing and presence of pulse. If person is not breathing immediately call 911 and begin CPR if qualified.

4.5 Ingestion Do not induce vomiting if swallowed. Consult a physician.

4.6 Most important symptoms/effects (acute and delayed) Dust and/or fume from processing can cause irritation to the eyes, skin and upper respiratory tract.

4.6.1 Inhalation - Chronic overexposure can cause pulmonary fibrosis (scarring of the lungs), central nervous system damage, secondary Parkinson's disease and reproductive harm to males.

4.6.2 Other health effects from welding, melting or other elevated temperature processing can cause nausea, fever, chills shortness of breath and malaise (metal fume fever) or the accumulation of fluid on the lungs (pulmonary edema). Long term, chronic overexposure can cause asthma or other diseases of the lungs and respiratory system.

4.6.3 Combustion of the coating can generate hydrogen chloride, hydrogen fluoride and other by-products of combustion. Short term overexposure can cause severe irritation of the respiratory system.

4.7 Medical Conditions Aggravated by Exposure to Product Dust and fume from processing may affect those with pre-existing respiratory system disease's or skin rashes.

4.8 Indication of any immediate medical attention and special treatment needed No further applicable information available.

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Last Revised Date: September 8, 2016

Page 3 of 6

SECTION 5: Fire Fighting Measures

5.1 Suitable extinguishing media Use Class D extinguishing agents on fines, dust or molten metal.

5.2 Unsuitable extinguishing media Do not use water when fighting fires around molten aluminum. Do not use halogenated extinguishing media on small chips/fines.

5.3 Specific Hazards This product does not present fire or explosion hazards as shipped. Small chips, fine turnings and dust from processing may be readily ignitable. May be a potential explosion hazard if a suspension of fine aluminum dust is present in the air. Finely divided metals may have enough surface oxide to produce thermite reactions

5.4 Special protective equipment and precautions for firefighters Fire fighters should wear NIOSH approved, positive pressure, SCBA and full protective clothing

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures None known as shipped. Avoid generating dust.

6.2 Environmental precautions None known as shipped

6.3 Methods and materials for containment and cleaning up Collect scrap for recycling. See Section 7 for safe handling.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

7.1.1 Avoid contact with sharp edges or heated metal. Hot aluminum does not necessarily glow red.

7.1.2 Avoid generating dust. If dust or fine particles are generated during processing, use non-sparking equipment, tools and natural bristle brushes to gather material.

7.2 Conditions for safe storage, including any incompatibilities Keep material dry.

7.3 Additional information For more information on the handling and storage of aluminum contact The Aluminum Association, 1525 Wilson Boulevard, Suite 600, Arlington, Virginia 2220, www.aluminum.org. It has a number of publications, including:

- Guidelines for Handling Molten Aluminum
- Guidelines for Handling Aluminum Fines Generated During Various Aluminum Fabricating Operations

SECTION 8: Exposure Controls / Personal Protection

8.1 PEL/TLV Table

Component	CAS Number	OSHA - PEL (mg/m3)	ACGIH - TLV (mg/m3)
Aluminum	7429-90-5	15 (total dust) 5 (total dust- respirable)	10 (oxide fume), 5 (dust and fume)
Magnesium	1309-48A	15 (oxide fume)	10 (oxide fume)
Manganese	7439-96-5	5 (dust/fume)	5 (dust), 1 (fume)
Iron	1309-37-1	10 (fume)	5 (fume)
Silicon	7440-21-3	15 (total dust)	10 (total dust), 5 (total dust- irrespirable)
Chromium	7440-47-3	1.0 Chrome Metal	0.5 (dust)
Copper	7440-50-8	0.1 (fume) 1.0 (dust)	0.2 (fume) 1.0 (dust)
Zinc	7440-66-6	15 (total dust) 5 (total dust- respirable)	10 (oxide fume) 5 (dust and fume)

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SDS Created: August 1, 2015

Last Revised Date: September 8, 2016

Page 4 of 6

8.2 Individual protection measures, Personal Protective Equipment

8.2.1 Eye and Face Wear safety glasses with side shields.

8.2.2 Skin Protection Wear appropriate gloves to avoid skin injury.

8.2.3 Respiratory Protection If necessary, use NIOSH-Approved respiratory protection.

8.2.4 Appropriate engineering controls Wear all other appropriate PPE as required by site specific program. Vacuums and ventilation must be designed using good engineering practice to control explosive dusts.

SECTION 9: Physical and Chemical Properties

Form	Solid. Bare or coated coil.
Appearance	Bare – Silvery gray. Painted – Various colors.
Odor	Odorless
Odor Threshold	Not Applicable.
pH	Not Applicable.
Boiling Point	3,733°F (estimated)
Melting Point	1,220°F
Initial boiling point and boiling range	Not Applicable
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Density (Water = 1)	2.5 – 2.9
Flammability	Not Applicable
Flammability Limits	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Relative Density	Not Determined
Water Solubility	Insoluble
Partition Coefficient	Not Applicable
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Applicable
Viscosity	Not Applicable

SECTION 10: Chemical Stability and Reactivity Information

10.1 Reactivity Stable and non-reactive under normal conditions of use, storage and transportation as shipped.

10.2 Chemical Stability Stable under normal conditions of use, storage and transportation as shipped.

10.3 Possibility of hazardous reactions Hazardous polymerization will not occur.

10.4 Conditions to Avoid Chips, fines, dust and molten metal are considerably more reactive with the following: Water: Slowly generates hydrogen gas and heat. Molten metal can react violently/explosively with water or moisture, especially when 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 when heated or molten. Halogenated Compounds: Many halogenated hydrocarbons, including halogenated fire extinguishing agents can react violently with finely divided or molten aluminum. Iron Oxide and other metal oxides: A violent thermite reaction generating considerable heat can occur. Reaction with aluminum fines and dust requires only a weak ignition source for initiation. Molten aluminum can react violently with iron oxide without external ignition source.

10.5 Incompatible materials As shipped, none known.

10.6 Hazardous Decomposition Products Combustion of the coating can generate Carbon Monoxide, Carbon Dioxide, Hydrogen Chloride, Chlorinated Hydrocarbons, Hydrogen Fluoride and partially oxidized hydrocarbons.

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Last Revised Date: September 8, 2016

Page 5 of 6

SECTION 11: Toxicological Information

11.1 Health Effects Associated with Ingredients Aluminum dust/fines and fumes are generally considered to be biologically inert. Manganese dust or fumes under conditions of chronic overexposure can cause inflammation of the lung tissue, scarring of the lungs, central nervous system damage, Secondary Parkinson's Disease and reproductive harm to males. Silicon (inert dust) under conditions of chronic overexposure can cause chronic bronchitis and narrowing of the airways. Chromium dust and fumes can cause irritation of eyes, skin and respiratory tract. Aluminum fumes generated during welding or melting present low health risk. Welding or plasma arc cutting of aluminum alloys can generate ozone. Ozone can cause irritation of the eyes, nose and upper respiratory tract. Combustion of the coating can generate Carbon Monoxide, Carbon Dioxide, Hydrogen Chloride, Chlorinated Hydrocarbons, Hydrogen Fluoride and partially oxidized hydrocarbons.

11.2 Information on likely routes of exposure

11.2.1 Due to the form of the product as shipped, this is not relevant.

11.2.2 Dust and/or fume from processing can cause irritation to the eyes, skin and upper respiratory tract from inhalation.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure

11.3.1 Due to the form of the product as shipped, this is not relevant.

11.3.2 Inhalation of dust and/or fumes due to processing - Chronic overexposure can cause pulmonary fibrosis (scarring of the lungs), central nervous system damage, secondary Parkinson's disease and reproductive harm to males.

11.3.3 Other health effects from welding, melting or other elevated temperature processing can cause nausea, fever, chills shortness of breath and malaise (metal fume fever) or the accumulation of fluid on the lungs (pulmonary edema). Long term, chronic overexposure can cause asthma or other diseases of the lungs and respiratory system.

11.3.4 Combustion of the coating can generate hydrogen chloride, hydrogen fluoride and other by-products of combustion. Short term overexposure can cause severe irritation of the respiratory system.

11.4 Reproductive Hazard Carcinogenicity Product as shipped does not present any reproductive hazards. No information available for this product as shipped. Certain Chromium compounds are classified by the national Toxicology Program as: A1 – Confirmed Human Carcinogen, this product is not known to contain any of those specific compounds.

SECTION 12: Ecological Information

12.1 Ecotoxicity Aluminum and its alloys in the solid form, such as coils, ingots or sows, do not present any hazard to the environment. Aluminum can be fully recycled.

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

12.3 Bioaccumulative potential The product is not bioaccumulating.

12.4 Mobility in soil Not considered mobile.

12.5 Other adverse effects None known.

SECTION 13: Disposal Considerations

Reuse or recycle material whenever possible. If reuse or recycle is not possible, disposal must be in accordance with local, state and federal regulations.

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Page 6 of 6

SECTION 14: Transportation Information

This product, as shipped, is not regulated by the US Department of Transportation as a hazardous material.

SECTION 15: Regulatory Information

15.1 CERCLA/SARA Hazardous Substances and Reportable Quantities

Chromium (7740-47-3)

5,000 pound final RQ (No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal is larger than 100 micrometers.)

15.2 CERCLA/SARA –Section 313 – Emissions Reporting

Aluminum (7429-90-5) 1.0 % de minimis concentration (dust or fume only)
Chromium (7440-47-3) 1.0 % de minimis concentration
Manganese (7439-96-5) 1.0 % de minimis concentration

15.3 SARA –Section 311/312 – Physical and Health Hazard Categories

Immediate Health Hazard Yes, if particulate/fumes generated during processing
Delayed Health Hazard Yes, if particulate/fumes generated during processing
Fire Hazard No
Sudden Release of Pressure No
Reactive Yes, if molten.

15.4 Other Regulations

The following components are listed on one or more of the following states hazardous substances lists.

15.4.1 - Components

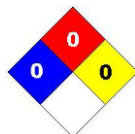
Component	CAS Number	CA	MA	MN	NJ	PA	
Aluminum	7429-90-5		Yes	Yes	Yes	Yes	Yes
Chromium	7440-47-3		Yes	Yes	Yes	Yes	Yes
Manganese	7439-96-5		Yes	Yes	No	Yes	Yes

15.4.2 – Component Inventory Listing

Component	CAS Number	TSCA - US	DSL - Canada	EINECS	AICS - Australia	MITI – Japan
Aluminum	7429-90-5	Yes	Yes	Yes	Yes	No

MITI Inventory does not specifically list pure metals. However, the class of compounds for each of these metals is listed.

SECTION 16: Other Information



Hazard Rating: Health – 0, Flammability – 0, Reactivity/Stability - 0

SDS/MSDS History: Original MSDS - Spectra MSDS Number: 467891-01.1 MSDS Date: November 2, 2007

SDS Created: August 1, 2015, **Last Revised Date:** March 17, 2016

Prepared by: RC&S Department, Spectra Metal Sales, Inc.