



SAFETY DATA SHEET

SECTION 01 – IDENTIFICATION

Common / Product Name: Unisub Aluminum

Revision Date: June 1, 2018

Recommended Use: Various fabricated aluminum parts and products

Identification of the Company: Universal Woods Inc.
2600 Grassland Dr.
Louisville, KY 40299-2591
USA
Emergency Telephone No: (502) 491 1477
Other Information Calls: (502) 491 1461

Emergency Information: CHEMTREC 24 HR. Emergency Telephone:
U.S. /North America: (800) 424-9300
International: (703) 527-3887

SECTION 02 – HAZARD(S) IDENTIFICATION

Physical State: Solid
Appearance: Shaped as a panel
Odor: None

Potential Health Effects

Acute Toxicity

Eyes May cause slight irritation

Skin Does not pose a potential of skin irritation and sensitization

Inhalation Inhalation of dust in high concentration may cause irritation of respiratory system

Ingestion Not an expected route of exposure. May be harmful if swallowed.

Chronic Effects No known chronic effects of components present at greater than 1%

Aggravated Medical Conditions: Skin disorders. Asthma.

The sublimation or engraving process could create an odor.

SECTION 03 – COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Component (s): This material is aluminum. As such, it is essentially inert (non-toxic) during handling and storage. This MSDS also discusses potential hazards created in the sublimation process. Only information specific to aluminum is included as required.

Please Note: Other components used in the sublimation process such as inks are separate materials and are not covered in this SDS.

<u>CAS Number</u>	<u>Chemical Name</u>	<u>Weight %</u>
7429-90-5	Aluminum	>92
7440-66-6	Zinc	< 5.85
7439-95-4	Magnesium	<5.50
7440-21-3	Silicon	<2.0
7439-96-5	Manganese	<1.50
7440-47-3	Chromium	<0.35
7440-02-0	Nickel	<0.05
7439-92-1	Lead	<0.01

Surface finishes are factory applied. These products are classified as an “article” according to 29 CFR 1910.1200(c). They do not release any hazardous chemical under normal conditions of use.

SECTION 04 – FIRST-AID MEASURES

Inhalation: Hazard is unlikely. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should administer oxygen. Seek immediate medical attention.

Eyes: Flush eyes with large amounts of water. Remove to fresh air. If irritation persists, get medical advice.

Skin: Wash affected areas with soap and water. Get medical advice if rash or persistent irritation or dermatitis occurs.

Ingestion: Not applicable.

SECTION 05 – FIRE-FIGHTING MEASURES

Flammable Properties: Finely divided aluminum powder or dust may form explosive mixtures in air

Explosive Limits: See below under Unusual Fire and Explosion Hazards

Flammable Limits: Lower Upper

in Air % by Volume: NA NA

Flash Point: NA

Extinguisher Media: Sand, water, carbon dioxide.

Unsuitable Extinguisher Media: DO NOT USE WATER OR FOAM.

Auto-Ignition Temperature: 400 -500 degrees F for dust

Explosion Data

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

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

Unusual Fire and Explosion Hazards: Sawing, sanding or machining can produce dust as a by-product which may present an explosion hazard if a dust cloud contacts an ignition source.

SECTION 06 –ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment.

Methods for Containment: Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up: No special precautions for large product fragments. For dust cleanup use protective equipment. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

SECTION 07 –HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid dust formation. Do not breathe vapors/dust. Do not touch heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. Contact with hot metal can cause skin and eye burns.

Storage: Keep in a dry, cool and well-ventilated place.

SECTION 08 –EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: The following table lists exposure limits for all chemicals listed in Section 3 where a limit exists.

Chemical Name	ACGIH TLV	OSHA PEL
----------------------	------------------	-----------------

Aluminum 7429-90-5	TWA: 10 mg/m ³	TWA: 15 mg/m ³ (total) TWA: 5 mg/m ³ (respirable)
Silicon 7440-21-3	TWA: 10 mg/m ³ TWA: 15 mg/m ³ (total)	TWA: 5 mg/m ³ (respirable)
Manganese 7439-96-5	TWA: 0.2 mg/m ³	Ceiling: 5 mg/m ³
Chromium 7440-47-3	TWA: 0.5 mg/m ³	TWA: 1 mg/m ³
Nickel 7440-02-0	TWA: 1.5 mg/m ³	TWA: 1 mg/m ³
Lead 7439-92-1	TWA: 0.05 mg/m ³	TWA: 50 µg/m ³

Respiratory Protection: Usually not necessary to reduce exposures to TLV during anticipated normal use. If requested, due to odor or if TLV is exceeded; use organic vapor filtration system with a respirator type appropriate for the exposure level.

Ventilation: Usually not necessary to reduce exposures to TLV during normal use. General or local exhaust may be necessary to minimize odors in small rooms. All confined space work should be done in accordance with OSHA 1910.146.

Protective Gloves: Possible material handling hazard (cuts, abrasion). Use cloth or leather if necessary or requested.

Eye Protection: Safety glasses required.

Other Protective Clothing or Equipment: None known.

SECTION 09 –PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: NA

Specific Gravity: 0.4- 0.8

Vapor Pressure (mm Hg): NA

Percent Volatile by Volume (%): 0

Vapor Density (Air = 1): NA

Evaporation Rate (BuAc = 1): NA

Solubility in Water: <0.1 %

Reactivity in Water: None known

Physical State: Solid

Boiling Point Range: NA

Explosion Limits: NA

Density: 0.095-0.103 lbs/in³

Melting Point Range: 915-1215° F

Appearance and Odor: Unisub Aluminum is cut into panels and shapes. The sublimation or engraving process could create an odor.

SECTION 10 –STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Conditions to Avoid: Aluminum fines are attacked by strong acids and alkalis and by some halogenated organic compounds especially at elevated temperatures. Operations generating aluminum fines may produce hydrogen gas when exposed to moisture. Hydrogen gas is highly flammable and can accumulate in poorly ventilated areas.

Incompatibility (Materials to Avoid): Acids. Alkalis. Hydroxides. Halogens.

Hazardous Decomposition Products: Welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, and nitrogen oxides.

Hazardous Polymerization: Does not occur.

SECTION 11 –TOXICOLOGICAL INFORMATION

Product is a solid sheet of aluminum. No hazards anticipated during handling and storage.

Chronic Toxicity: No known chronic effects of components present at greater than 1%.

Carcinogenicity: No known carcinogens are present at greater than 1%.

Sensitization: None known

Mutagenic Effects: None known

Reproductive Toxicity: None known

Developmental Toxicity: None known

Target Organ Effects: No known effects under normal use conditions.

SECTION 12 –ECOLOGICAL INFORMATION

Ecotoxicity: No Information available on the adverse effects

Mobility: No Information available on the adverse effects

Persistence and Degradability: No Information available on the adverse effects

Bioaccumulative Potential: No Information available on the adverse effects

Other Adverse Effects: No Information available on the adverse effects

SECTION 13 –DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with all applicable national environmental laws and regulations

Contaminated Packaging: Dispose of in accordance with local regulations.

SECTION 14 –TRANSPORT INFORMATION

DOT (Department of Transportation): non-regulated

Hazard Class or Division: non-regulated

IMO/IMDG code (Ocean) Hazard Class of Division: non-regulated

IATA: Non-Hazardous for Air Transportation: This material is considered to be non-hazardous for air transportation.

SECTION 15 –REGULATORY INFORMATION

UNITED STATES REGULATORY INFORMATION

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313- Threshold Values %
Aluminum	7429-90-5	60-100	1.0
Zinc	7440-66-6	5-10	1.0
Manganese	7439-96-5	1-5	1.0

SARA 311-312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SECTION 16 –OTHER INFORMATION

Issuing Date: 6-1-18

Disclaimer

The condition or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this reason, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.