MATERIAL SAFETY DATA SHEET
Product Name: ALUMINUM ALLOYS, 6063

SECTION 1 – PRODUCT & COMPANY IDENTIFICATION

Product Name: ALUMINUM ALLOYS, 6063
Synonyms: Aluminum

Manufacturer: FASTPLANK Systems Inc.
4115 72nd Avenue SE
Calgary, AB T2C 2G5

E-mail: orderdesk@fastplank.com
Website: fastplank.com
Phone: 1-877-973-8746

SECTION 2 – HAZARDS IDENTIFICATION

Emergency Overview

WARNING! Welding, sawing, brazing, grinding and machining may cause dust and/or fumes to be released. These fumes may be harmful if inhaled and may irritate the eyes, skin and respiratory tract. Molten material may cause thermal burns.

Properties:

Physical State:	Solid
Appearance:	Silvery
Odor:	None
Non-flammable:	As supplied or applicable

Route(s) of Entry

Potential Health Effects (Acute and Chronic)

Aluminum products in their solid state under normal conditions, do not present an inhalation, ingestion or skin hazard. However, operations resulting in fumes or particulate formation such as sawing, brazing, grinding and machining may present health hazards.

LD 50/LC 50

No data available.

Signs and Symptoms of Exposure

Eyes: Over-exposure to dust may cause irritation.
Skin: Skin contact very unlikely, may cause irritation.
Ingestion: Not likely.
Inhalation: Not likely unless material is machined, welded or melted. Short term exposure to welding fumes may result in discomfort.

WARNING! This product does contain carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. This product does contain amounts of material considered hazardous by OSHA, Hazards Communication Standard (29 CFR 1910.1200).

Medical Conditions Generally Aggravated by Exposure Asthma, chronic lung disease and skin rashes. (**THRESHOLD LIMIT VALUE: SEE SECTION 3**).

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components (Chemical Name)	CAS#	Concentration	OSHA TWA	ACGIH TLV	OSHA CEIL
Magnesium	7439-95-4	0.0-1.6%	10 mg/m^3		
Aluminum	7429-90-5	>95.0%		(dust)	
Manganese	7439-96-5	0.0-1.6%		0.2mg/m^3	5 mg/m^3
Chromium	7440-47-3	0.0-0.35%	0.5 mg/m^3	0.5 mg/m3	
Iron	65996-67-0	<0.75%			

Other Exposure Limit Information

Ingredient: Aluminum (as dust) limit, 5.0 mg/m^3, 1984-85 ACGIH OSHA 1910.1000
Base Metal % Composition by Weight TLV (mg/m^3) * TWA (mg/m^3)**

Aluminum 80.0-99.7 10.0 as metal not established
Dust and Oxide 5.0
As welding**
Fume
Maximum % Composition by Weight 1984-85 ACGIH OSHA 1910.1000

Alloying Element	1.0-10.0 1.0-20.0 TLV(mg/m^3)* TWA(mg/m^3)**
Cobalt, Co	W, P 0.1 0.1
Copper, Cu	W P 0.2, As Fume 0.1, As Fume
Iron, Fe	W, P 5.0, As Fume 10.0, As Fume
Magnesium, Mg	W P 10.0, As Fume 15.0, As Fume
Manganese, Mn	W 10.0, As Fume 15.0, Ceiling
Silicon, Si	W, P 10., As Total Dust Not Estab. As Respirable " "Dust
Tin, Sn	P 2.0, As Oxide and 2.0, As Metal Inorganic
Compounds	
Zinc, Zn	W, P 5. As Fume 5.0, As Fume

KEY:

W =	Wrought Aluminum (Fabricated Products)
P =	Prime and Ingot Hardener Aluminum
*TLV =	Threshold Limit Value
**TWA =	Time-Weighted Average

NOTE:
Aluminum alloys may be comprised of all or variations of the alloys shown here. In addition, the welding of Aluminum Alloys may produce the products listed in Section VIII, herein.

SECTION 4 – FIRST AID MEASURES

Emergency and First Aid Procedures

Eyes:	Flush with warm water for at least 15 minutes. If irritation persists, get medical attention.
Skin:	Remove particles by thoroughly washing with soap and water.
Ingestion:	Not applicable.
Inhalation:	Remove to fresh air.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Pt.:	NR	
Method Used:	Unknown	
Explosive Limits:	LEL: NR	UEL: NR
Auto ignition Pt.:	NR	

Fire Fighting Instructions: Do not use water on dust. Water produces ammonia, methane and hydrogen, which are highly flammable. Stay away from end of tanks. For massive fire in cargo/storage area, use unmanned hose holder and monitor nozzles. If this is impossible, withdraw from area and let fire burn. Damp Aluminum dust may spontaneously heat with liberation of hydrogen to form explosive mixtures.

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Flammable Properties and Hazards: Damp Aluminum dust may spontaneously heat with the liberation of hydrogen to form explosive air mixtures.

Extinguishing Media: Class D extinguishing media, fluxing salts, sodium chloride powder or dry sand.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled

Personal Precautions: In its molten format, this material is a water pollutant. If water pollution occurs, notify appropriate authorities.

Methods for Containment: If molten, contain the fire by using sand or alumina as a ban. Do not attempt to halt flow of metal with shovels or hand tools.

Methods for Clean-Up: Clean up spilled material manually and place on approved dry containers away from water and humidity. If wet, do not store in airtight containers.

SECTION 7 – HANDLING & STORAGE

Precautions to be Taken in Handling: Keep away from halogen acids and sodium hydroxide which may generate explosive mixtures of hydrogen. Finely divided aluminum may form explosive mixtures in air. The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation and ultraviolet radiation.

Other Precautions: NA

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Respiratory Equipment (Specify Type): Personal protective equipment, including use of NIOSH approved respirator is required when machining, grinding, welding or remelting this product.

Skin and Eye Protection: Use approved protective eyewear and wear impervious gloves to avoid repeated or prolonged skin contact with residual oils and to avoid injury.

Protective Clothing: Wear appropriate clothing, including a long-sleeved shirt, etc., to prevent skin irritation. Appropriate personal protective equipment is required when melting, casting, machining, forging or otherwise processing. The nature of the processing activity will determine what format of equipment is necessary, i.e., glasses, respirator, protective clothing and ear protection.

Engineering controls (Ventilation, etc.): Use with adequate ventilation.

ADDITIONAL INFORMATION

1. Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen.
2. Finely divided aluminum will form explosive mixtures in air. It will also form explosive mixtures in air in the presence of bromates, iodates or ammonium nitrate.
3. When remelting aluminum scrap, entrapped moisture or the presence of strong oxidizers such as ammonium nitrate could cause an explosion. This applies to the collection of moisture in sow cavities as well. Moisture must be driven off prior to remelting.
4. Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. If metal is hot and touched, burns can result.
5. Aluminum powder must be [packaged and shipped as a flammable solid, UN1396.
6. Hard alloy ingots in the 2000 and 7000 series must be stress-relieved to prevent explosion when sawed.
7. The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation and ultraviolet radiation.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Physical States:	Solid	
Melting Point:	NR	
Boiling Point:	NR	
Auto ignition Point:	NR	
Flash Point:	NR	Method Used: Unknown
Explosive Limits:	LEL: NR	UEL: NR
Specific Gravity (Water=1):	2.7-2.9	

Vapor Pressure (vs. Air or mm Hg):	NR
Vapor Density (vs. Air=1):	NR
Evaporation Rate (vs. Butyl Acetate=1)	NR
Solubility in Water:	NIL
Percent Volatile:	NR
Viscosity:	NR
pH:	NR

Appearance and Odor

Color:	Silver gray
Odor:	Not Applicable
Odor Threshold:	Not Applicable
Water Reactivity:	No data Density: 2.702 g/mL

Material Is (At Normal Conditions): Solid

SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION

Stability: Stable
Conditions to Avoid – Instability: This material is stable under normal conditions of handling.
Incompatibility – Materials to Avoid: Anhydrous bromine, halocarbons, mercury (amalgon) chlorine, iodine (aluminum + barium, nitrate + barium, nitrate + potassium, nitrate + sulfur + organic matter).
Hazardous Decomposition or Byproducts: In particulate form (small chips, dust), aluminum reacts with water and air humidity, strong basic solutions, strong acidic solutions, halogenated acids, producing flammable hydrogen gas.
Hazardous Polymerization: Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

No specific information available on this product.

Carcinogenity

NTP:	No
IARC Monographs:	No
OSHA Regulated:	No

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SECTION 12 – ECOLOGICAL INFORMATION

No specific information available on this product.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. Dispose of in accordance with all applicable federal, state and local health and environmental regulations.

Prevent materials from entering drains, sewers or waterways.

Ensure that all responsible federal, state and local agencies receive notification of spill and disposal methods.

SECTION 14 – TRANSPORTATION INFORMATION

Land Transport (US DOT)

DOT Proper Shipping Name DOS Hazard Class:	4.1
DOT Hazard Label:	Flammable Solid
HAZARD CLASS:	4.3 Dangerous When Wet

SECTION 15 – REGULATORY INFORMATION

No Data Available.

SECTION 16 – OTHER INFORMATION

The information contained herein is based on data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results we obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in its use, storage and handling of material.

Flammability:	0	**Health:**	1	**Instability:**	1

KEY:

Minimal = 0
Slight = 1
Moderate = 2
Serious = 3
Extreme = 4