SAFETY DATA SHEET
FOR
THORN SMITH LABORATORIES

SECTION 1 - IDENTIFICATION

Trade Name:	**Aluminum-Magnesium Alloy** for Al, Mg (Also known as Dow Metal)
Catalog Number:	80-1010 (Vials) / 80-1011 (100g)
Product Description:	Analyzed Quantitative Unknowns
Manufacturer:	Auric Enterprises, Inc. d/b/a Thorn Smith Laboratories
Address:	7755 Narrow Gauge Road Beulah, MI 49617
Phone Number:	231-882-4672
SDS Number:	TSL-013

SECTION 2 – HAZARDS IDENTIFICATION

Classification of Substance or Mixture: Not a hazardous substance or mixture.

GHS Label Elements, including precautionary statements: Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

This product is not listed by NTP, IARC or regulated as a Carcinogen by OSHA.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Aluminum

Formula:	Al
CAS No.:	7429-90-5
% by Weight:	< 96

Zinc

Formula:	Zn
CAS No.:	7440-66-6
% by Weight:	< 1

Magnesium

Formula:	Mg
CAS No.:	7439-95-4
% by Weight:	<93

Manganese

Formula:	Mn
CAS No.:	7439-96-5
% by Weight:	<1

Iron

Formula:	Fe
CAS No.:	7439-89-6
% by Weight:	<1

Toxicological Data on Ingredients: Aluminum LD50: Not Available LC50: Not Available

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SECTION 4 – FIRST AID MEASURES

Potential Acute Health Effects:
Irritation to skin and eyes on contact. Inhalation will cause irritation to the lungs and mucous membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling and itching are characteristics of skin inflammation.

Potential Chronic Health Effects:
This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention immediately.
Skin Contact: Remove any contaminated clothing. Wipe off excess from skin. Particles embedded in skin can produce blebs with a protracted course. Immediately wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
Inhalation: If a person breathes in large amounts, move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion: Get medical attention immediately.

SECTION 5 – FIRE FIGHTING MEASURES

Flammability: Non-Flammable
Flash Points: Not Applicable
Auto-Iginition: Not Applicable
Flammable Limits: Not Applicable
Extinguishing Media: Use approved class D extinguishers or smother with dry sand, dry ground limestone or dry clay. Do NOT use water, carbon dioxide extinguisher on this material. Smother burning alloy.
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent inhalation or contact with skin and eyes. Pyrophoric material. Wear fire-fighting glasses when fighting fire. Aluminum-Magnesium alloys produce very bright white flame when they burn.
Fire/Explosion Hazards: Could catch fire if exposed to dry air where static charges could be present. Reacts with water to liberate flammable and/or explosive gas. Emits toxic fumes under fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.

SECTION 7 – HANDLING AND STORAGE

Storage Temperatures: Store at ambient temperatures.
Shelf Life: Unlimted in tightly closed container.
Special Sensitivity: Above 50/50 mixture Magnesium alloy powder will react with water to produce hydrogen gas and heat. The application of water to molten or burning aluminum magnesium alloy will act as an accelerant, generate hydrogen gas and may cause an explosion.
Precautions to be taken in handling and storage: Store in accordance with all local, state, and federal environmental regulations. Keep away from fire and/or sparks.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection (Specify Type): NIOSH/MSHA approved dust/fume respirator should be used to avoid excessive inhalation of particulates when exposure exceeds TLV's.
Protective Gloves: Wear protective gloves.
Eye Protection: Wear chemical safety glasses.
Ventilation To Be Used: Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.
__X__ Local Exhaust __X__ Mechanical (General) _____ Special
_____ Other (Specify)
Other Protective Clothing and Equipment: Wear clean body-covering clothing. Emergency showers and eye was stations should be available.
Hygienic Work Practices: Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling. Avoid flames and fire.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Powder
Odor: Odorless
Appearance: Silver to Gray
Molecular Weight: N/A
Boiling Point: N/A
Melting Point: >800ºC (>1500ºF)
Solubility in Water: Negligible (<0.1%)
Water Reactive: Above a 50/50 mixture; will emit flammable gases in contact with water.
Vapor Density (Air=1): N/A
Evaporation Rate (=1): N/A

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: __X__ Stable _____ Unstable
Conditions to Avoid: Exposure during storage to strong acids, bases and oxidizing agents.
Incompatibility (Materials to avoid): Reacts with acids to form hydrogen.
Hazardous Decomposition Products: Toxic gases, aerosols, and vapors may be released in a fire involving alloys if fumes of other compounds or other contacting materials are involved.

HAZARDOUS POLYMERIZATION: _____ May Occur __X__ Will Not Occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure: Eye Contact. Ingestion. Inhalation. Skin contact.
Toxicity Data: No information found.
Chronic Toxic Effects: Not known. Repeated or prolonged exposure to this compound is not known to aggrevate medical conditions.
Acute Toxic Effects: Irritating to skin, eyes on contact. Inhalation will cause irritation to the lungs and mucous membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation.

SECTION 12 – ECOLOGICAL INFORMATION

Not known.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local, state and federal environmental regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Domestic (D.O.T.)
Proper Shipping Name: Chemicals, n.o.s.

International (T.M.O.)
Proper Shipping Name: Chemicals, n.o.s.

Air (I.C.A.O.)
Proper Shipping Name: Chemicals, n.o.s.

SECTION 15 – REGULATORY INFORMATION

Non-regulated.

HMIS (U.S.A.): Health: 1 Flammability: 1 Reactivity: 2 Personal Protection: E

NFPA (U.S.A.): Health: 1 Flammability: 1 Reactivity: 2

SECTION 16 – OTHER INFORMATION

Extremely Hazardous Substance: No
CERCLA Hazardous Substance: No
Date Prepared: February 20, 1992
Date of Last Revision: November 11, 2020

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