

MATERIAL SAFETY: DATA SHEET

Timminco Corporation, Aurora, CO. 80010 Emergency Phone: 303-343-8667

Product Name: Billet Magnesium Extrusions, Galvorod (R)

Product Code: 09926

Effective Date: 03/07/05 Date Printed: 03/07/05 MSD: 001204

1 **Ingredients:** (% w/w, unless otherwise noted)

Timminco Magnesium		
Aluminum	CAS # 007429-90-5	3.0%
Manganese, min.	CAS # 007439-96-5	0.20%
Zinc	CAS # 007440-66-6	1.0%
Magnesium	CAS # 007439-95-4	BAL.

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2 **Physical Data:**

BOILING POINT:	Not determined
VAP. PRESS:	Not applicable
VAP. DENSITY:	Not applicable
SOL. IN WATER:	Not applicable
SP. GRAVITY:	Approximately 1.77
MELTING POINT:	Approximately 1160F (627C)
APPEARANCE:	Silver solid
ODOR:	No odor

3 **Fire and Explosion Hazard Data:**

Flash Point:	None
Method Used:	Not applicable

Flammable Limits

LFL:	Not applicable
UFL:	Not applicable

Extinguishing Media: Smother burning magnesium by covering with an extinguishing powder approved for use on magnesium fires such as G1, MET-L-X, etc. consult National Fire Protection Association standards for other extinguishing media which may be applicable to certain operations such as foundries or heat-treat furnaces.

Fire & Explosion Hazards: When heated in air to a temperature near its melting point, magnesium alloys ignite and burn with a white flame. Use of water on burning magnesium will produce hydrogen gas and may cause an explosion.

Fire-Fighting Equipment: Wear positive pressure self-contained breathing apparatus.

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4 Reactivity Data:

Stability: (CONDITIONS TO AVOID) Stable under normal handling conditions. See incompatibility statement.

Incompatibility: (SPECIFIC MATERIALS TO AVOID) Acid, water. Reacts with acid to form hydrogen gas. In finely divided form, will react with water or acids to release hydrogen.

Hazardous Decomposition Products: None under normal use or storage. See incompatibility statement and fire and explosion hazard data, Section 3, for special situations.

Hazardous Polymerization: Will not occur.

5 Environmental and Disposal Information:

Action to Take for Spills/Leaks: Clean off and use.

Disposal Method: Dispose of in accordance with local, state, and federal regulations.

6. Health Hazard Data:

Eye:	Mechanical injury only
Skin Contact:	Mechanical injury only
Skin Absorption:	Skin absorption is unlikely due to physical properties
Ingestion:	Ingestion is unlikely due to physical state. If dusts are produced, amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of larger amounts could cause serious injury, even death, because the acute oral toxicity of magnesium is considered moderate.
Inhalation:	Dust may cause irritation to upper respiratory tract.
Systemic & Other Effects:	Exposures incidental to industrial handling are not anticipated to cause any significant adverse effects. Repeated excessive exposure to fumes of aluminum may cause Shaver's disease (weakness, fatigue and respiratory distress; chest x-rays may reveal fibrosis). Repeated excessive exposure to fumes or dust of a number of metals, including aluminum, may cause central nervous system and developmental effects.

7. First Aid:

Eyes:	Irrigate immediately with water for at least 5 minutes.
Skin:	Wash off dust in flowing water or shower.
Ingestion:	Induce vomiting if large amounts of dust are ingested. Consult a physician.

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Inhalation: Remove to fresh air if dust inhalation effects occur. Consult a physician.
Note to Physician: No specific antidote for dust inhalation. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

8. Handling Precautions:

Exposure Guidelines: Magnesium: None established for the metal. For the oxide fume OSHA PEL is 10 mg/m³ total, 5 mg/m³ respirable and ACGIH TLV is 10b mg/m³. Aluminum: For metals; ACGIH TLV is 10 mg/m³ and OSHA PEL is 15 mg/m³ total, 5 mg/m³ respirable. For fumes, ACGIH TLV and OSHA PEL are 5 mg/m³. For salts and alkyls; ACGIH TLV and OSHA PEL are 2 mg/m³. Zinc: None established for the metal. Zinc oxide: for dust, OSHA PEL is 10 mg/m³ total, 5 mg/m³ respirable and ACGIH TLV is 10 mg/m³ STEL.

Ventilation: Good ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection: In dusty atmosphere, use an approved dust respirator.

Skin Protection: Wear clean, long-sleeved, body-covering clothing.

Eye Protection: Use safety glasses. If dust exposure causes eye discomfort, use chemical goggles.

9. Additional Information:

Special Precautions to be Taken in Handling and Storage: If operations involving this product, such as machining, produce fines, such as dust, powder, chips, or turnings, proper measures should be taken to prevent dust clouds around these operations. These fines should be collected frequently and should be stored and disposed of in accordance with national Fire Protection Agency guidelines. If these fines should become ignited, they can be extinguished using procedures described in Section 3 of this document.

Practice reasonable care in handling magnesium and magnesium alloy product forms to avoid product damage or personal injury. Store product in dry location. Wet moist or high humidity storage may lead to corrosion of the product. Store away from other combustible materials. See National Fire Protection Association Bulletins NFPA 651, "Manufacture of Aluminum and Magnesium Powder" for more detailed information.

MSDS Status: Canadian regulatory information added.

REGULATORY INFORMATION: (Not meant to be all-inclusive—selected regulations represented.)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information

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U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Aluminum (Fume or Dust)	007429-90-5	3 %
Zinc (Fume and Dust)	007440-66-6	1 %

Sara Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category

Canadian Regulations

WHMIS INFORMATION; The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

This product is not a "Controlled Product" under WHMIS.

The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult Timminco Corporation For Further information