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# Material Safety Data Sheet

The Dow Chemical Company  
Midland, Michigan 48674

The Dow Chemical Company, Midland, MI 48674 Emergency Phone: 517-636-4400

Product Code: 81052

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Product Name: STICKS EXT MG-1 PRIMARY

Effective Date: 06/13/90 Date Printed: 07/31/97

MSDS:001283

## 1. INGREDIENTS: (% w/w, unless otherwise noted)

Dow Magnesium		
Magnesium, min.	CAS# 007439-95-4	99.80%

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: 2025F (1107C)  
VAP PRESS: Not applicable  
VAP DENSITY: Not applicable  
SOL. IN WATER: Not applicable  
SP. GRAVITY: Approximately 1.74  
MELTING POINT: Approximately 1202F (650C)  
APPEARANCE: Silver solid.  
ODOR: No odor.

## 3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: None  
METHOD USED: Not applicable

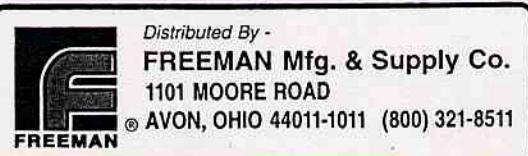
FLAMMABLE LIMITS  
LFL: Not applicable  
UFL: Not applicable

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

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### 3. FIRE AND EXPLOSION HAZARD DATA: (CONTINUED)

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.

### 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

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## 6. HEALTH HAZARD DATA: (CONTINUED)

the acute oral toxicity of magnesium is considered moderate.

INHALATION: Dust may cause irritation to upper respiratory tract.

SYSTEMIC & OTHER EFFECTS: Based on available data, repeated exposures are not anticipated to cause any significant adverse 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 medical personnel.

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 judgment of the physician in response to reactions of the patient.

## 8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE: None established for the metal. ACGIH TLV is 10 mgs/m<sup>3</sup> oxide fume. OSHA PEL is 15 mgs/m<sup>3</sup> oxide fume.

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

RESPIRATORY PROTECTION: In dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION: Wear clean, long-sleeved, body-covering clothing.

EYE PROTECTION: Use safety glasses. If dust exposure causes discomfort, use chemical goggles.

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## 9. ADDITIONAL INFORMATION:

### SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Practice reasonable care in handling this product. Magnesium or magnesium alloy products should be preheated to a minimum temperature of 300F (149C) to eliminate moisture prior to use in any melting operation. Water, in any form, if added to molten metal, will quickly generate steam and hydrogen and may cause an explosion. When this magnesium product is melted, or added to a molten bath, proper molten metal handling techniques should always be followed, including proper personal protective equipment, such as full-body covering flame retardant clothing, hard hat, face shield, side-shield safety glasses, flame retardant gloves, and steel-toed boots with metatarsal guards.

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.

Handle 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 480, "Storage, Handling, and Processing of Magnesium" and NFPA 651, "Manufacture of Aluminum and Magnesium Powder" for more detailed information.

MSDS STATUS: Revised section 9 and regsheet.

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**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.

**U.S. REGULATIONS**

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**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 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

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The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.