



# MATERIAL SAFETY DATA SHEET

For Welding Consumables and Related Products  
Essentially Similar to U.S. Department of Labor Form OSHA 20  
(to comply with OSHA Hazard Communication Standard 29 CFR 1910.1200)

**Manufacturer/Supplier Name:** UNIBRAZE CORP.  
**Address:** 1050 PENNER CREST, HOUSTON, TX 77055  
**Emergency Phone:** (713) 869-6000, 1-800-364-6900

**Product Name: MAGNESIUM WELDING ROD AZ92A**

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

Magnesium  
Aluminum CAS# 007429-90-5 9.0%  
Zinc CAS# 007440-66-6 2.0%  
Manganese, min. CAS# 007439-96-5 0.15%  
Magnesium CAS# 007-439-95-4 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: N/A
VAP. DENSITY: N/A	SOL. IN WATER: N/A
SP. GRAVITY: Appx. 1.82	MELTING POINT: Appx. 830F
APPEARANCE: 44C Silver solid	ODOR: None

## 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 molten magnesium will produce hydrogen gas and may cause an explosion.

Product Code 36786 FIREFIGHTING 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. Molten material may burn skin.

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: 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. Product Code 36786

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. Product Code 36786

## 8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE: Magnesium: None established for the metal. For the oxide fume OSHA

PEL is 10 mg/m<sup>3</sup> total, 5 mg/m<sup>3</sup> respirable and ACGIH TLV is 10 mg/m<sup>3</sup>. Aluminum: For metals;

ACGIH TLV is 10 mg/m<sup>3</sup> and OSHA PEL is 15 mg/m<sup>3</sup> total, 5 mg/m<sup>3</sup> respirable. For Fumes, ACGIH TLV and OSHA PEL are 5 mg/m<sup>3</sup>. For salts and alkyls; ACGIH TLV and OSHA PEL are 2mg/m<sup>3</sup>. Zinc: None established for the metal. Zinc oxide: for dust, OSHA PEL is 10 mg/m<sup>3</sup> total, 5 mg/m<sup>3</sup> respirable and ACGIH TLV is 10 mg/m<sup>3</sup> total; for fumes, OSHA PEL and ACGIH TLV are 5 mg/m<sup>3</sup> TWA, 10 mg/m<sup>3</sup> STEL.

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

RESPIRATORY PROTECTION: No respiratory protection should be needed.

SKIN PROTECTION: No precautions other than clean body -covering clothing should be needed. Mechanical injury only -molten material will burn skin.

EYE PROTECTION: Use safety glasses. If there is a potential for exposure to particles, use chemical goggles.

## 9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Practice reasonable care in handling magnesium and magnesium alloy product forms to avoid product damage and/or personal injury. Store product in dry location. Wet, moist or high humidity storage conditions will lead to corrosion of the product. Store away from other combustibles. See National Fire Protection Association Bulletin NFPA 48, "Storage, Handling and Processing of Magnesium" for detailed storage information.

MSDS STATUS: Revised section 9 and reg sheet.

For information regarding state/provincial and federal regulations see The Regulatory Information Section. (R) Product Code 36786

## REGULATORY INFORMATION (R): (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 the numerous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

## 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:

CHEMICAL NAME CAS NUMBER CONCENTRATION

ALUMINUM (FUME OR DUST) 007429-90-5 9% ZINC (FUME AND DUST) 007440-66-6 2%

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