

<b>Company</b> METALMART INTERNATIONAL, INC. MARK METALS DIVISION 5828 SMITHWAY ST. COMMERCE, CA. 90040		<b>Issue Date</b> November 12, 2009	<b>Description</b> SHEET/PLATE AZ31B TOOLING PLATE AZ31B EXT SPEC GRADE AZ31B, AZ60A, AZ61A, AZ80A, ZK60A EXT WELDING ROD AZ61B, A Z92A BILLET EXT. GALVOMAG
<b>Trade Name (Common Name or Symbol)</b> MAGNESIUM (SOLID)	<b>UN Number</b> N/A in this form	<b>ICSC Number</b> N/A in this form	<b>NFPA Rating</b> Health=0, Flamability=1, Reactivity=1, Other=Water Reactive

**I. INGREDIENTS**

NOTE: PRODUCTS UNDER NORMAL CONDITIONS DO NOT REPRESENT AN INHALATION, INGESTION OR CONTACT HEALTH HAZARD.

BASE METAL & ALLOYING ELEMENTS	CAS #	%COMPOSITION BY WEIGHT (1)	OSHA PEL	ACGIH TLV (mg/m <sup>3</sup> ) (2)
BASE METAL MAGNESIUM (Mg)	7439-95-4	BALANCE	15	10
ALLOYING ELEMENTS ALUMINUM (Al)	7429-90-5	<10	N.E.	10
MANGANESE (Mn)	7439-96-5	<1	5	5 (As dust-ceiling)
ZINC (Zn)	7440-66-6	<6	N.E.	5 (As fume)
ZIRCONIUM (Zr)	7440-67-7	<1	5	10

(1) % OF ALLOYING MATERIAL VARIES WITH GRADE OF MATERIAL (2) 1985 - 1986 ACGIH THRESHOLD LIMIT VALUE

**II. PHYSICAL DATA**

<b>Material is (At Normal Conditions)</b> <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	<b>Appearance and Odor</b> SILVER – ODORLESS		
Acidity/Alkalinity PH – N/A	Melting Point 1202°F Boiling Point 2012°F	Specific Gravity (H <sub>2</sub> O – 1) 1.74 Solubility in Water (% by weight) N/A	Vapor Pressure (mm Hg at 20°C) N/A

**III. PERSONAL PROTECTIVE EQUIPMENT**

<b>Respiratory Protection</b> NIOSH/MSHA APPROVED DUST & FUME RESPIRATOR SHOULD BE USED TO AVOID EXCESSIVE INHALATION OF PARTICULATES WHEN EXPOSURE EXCEEDS TLV'S	<b>Hands, Arms and Body</b> PROTECTIVE GLOVES ARE RECOMMENDED DURING HANDLING OF FINES EXPOSURE
<b>Eyes and Face</b> SAFETY GLASSES OR GOGGLES SHOULD BE UTILIZED AS REQUIRED BY EXPOSURE	<b>Other Clothing and Equipment</b> OTHER PROTECTIVE EQUIPMENT SHOULD BE UTILIZED AS REQUIRED BY THE WELDING STANDARD

**IV. EMERGENCY MEDICAL PROCEDURES**

IF EXPOSED TO EXCESSIVE LEVELS OF METAL FUMES, REMOVE TO FRESH AIR, SEEK MEDICAL AID IMMEDIATELY. EYES: FLUSH WITH WATER FOR AT LEAST 15 MINUTES.
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**V. HEALTH/SAFETY INFORMATION**

STEEL PRODUCTS IN THE NATURAL STATE DO NOT PRESENT AN INHALATION, INGESTION OR CONTACT HAZARD. HOWEVER, OPERATIONS SUCH AS BURNING, WELDING, SAWING, BRAZING AND GRINDING MAY RELEASE FUMES AND/OR DUSTS WHICH MAY PRESENT HEALTH HAZARDS IF TLV'S ARE EXCEEDED.

<b>Major Exposure Hazard</b> <input checked="" type="checkbox"/> INHALATION <input type="checkbox"/> SKIN CONTACT <input type="checkbox"/> SKIN ABSORPTION <input type="checkbox"/> INGESTION	<b>Suspected Cancer Agent?</b> <input checked="" type="checkbox"/> NO. This products Ingredients are not Found in Federal OSHA NTP IARC <input type="checkbox"/> YES. This products Ingredients are not Found in Federal OSHA NTP IARC		
Short-term exposure to fumes/dust may produce irritation of eyes and respiratory system. Inhalation of high concentrations of freshly formed oxide fumes of iron, manganese, and lead may cause metal fume fever, characterized by a metallic taste in the mouth, dryness and irritation of the throat and influenza symptoms.			
Subjecting zinc or alloys containing zinc to high temperatures (such as occurs during welding) will cause the formation of zinc oxide. Exposure to zinc oxide fumes or dusts can result in a flu-like illness called metal fume fever. Early symptoms may include a sweet or metallic taste in the mouth, dryness and irritation of the throat, and coughing. These symptoms may progress to shortness of breath, headache, fever, chills, muscle aches, nausea, vomiting, weakness, fatigue and profuse sweating. The attack may last 6-48 hours and is more likely to occur after a period away from the job.			
<b>Flash Point</b> N/A °F	<b>Auto Ignition Temp.</b> N/A °F	<b>Flammability Limits In Air</b> Lower N/A°F, Upper N/A°F	<b>Extinguishing Media</b> DRY SAND, METAL EXTINGUISHING POWDERS SUCH AS GI, MET-L-X
<b>Fire and Explosion Hazards</b> REACTS WITH ACID TO FORM HYDROGEN GAS. IN FINELY DIVIDED FORM, WILL REACT WITH WATER & ACIDS TO RELEASE HYDROGEN AND MAY CAUSE FIRES OR EXPLOSION. KEEP AWAY FROM SOURCES OF IGNITION.			
<b>Stability</b> <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	<b>Incompatibility (Materials to Avoid)</b> ACID, WATER,	<b>Extinguishing Media not to be used</b> DO NOT USE WATER, FOAM OR HALOGEN ON DUST FIRES	
<b>Reactivity</b> SEE FIRE AND EXPLOSION SECTION. SEE ADDITIONAL INFORMATION.	<b>Conditions to Avoid</b> SEE FIRE AND EXPLOSION SECTION. SEE ADDITIONAL INFORMATION.	<b>Hazardous Decomposition Products</b> SEE FIRE AND EXPLOSION SECTION. SEE ADDITIONAL INFORMATION.	

**VI. ENVIRONMENTAL**

<b>Spill or Leak Procedure</b> Remove all sources of ignition. Ventilate area of the spill. Sweep spilled substance into clean, dry metal container. Do not use water in collection process. If spilled magnesium has come into contact with water, proceed with caution. Hydrogen gas may be generated, which may cause a fire or explosion.	<b>Waste Disposal Method</b> According to local, State and Federal Regulations
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**VII. ADDITIONAL INFORMATION**

<b>Ventilation:</b> Local exhaust ventilation should be utilized when welding, burning, sawing, brazing, grinding or machining when exposure exceeds TLV's. In welding, precautions should be taken for airborne contaminants which may originate from components of welding rod. Arc or spark generated when welding or burning could be a source of ignition for combustible and flammable materials. 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.
<b>Special Precautions to be Taken in Processing, Handling and Storage:</b> Store product in dry location. Wet, moist or high humidity storage conditions ill lead to corrosion of the product. Store away from other combustibles. See National Fire Protection Association Bulletin NFPA 480, "Storage, Handling and Processing of Magnesium" for detailed information.

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