

MATERIAL SAFETY DATA SHEET

AZ61A MAGNESIUM WELDING ROD

VERSION DATE 1/5/98

PRINT DATE 1/5/98

SECTION 1

PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS HARRIS WELCO. DIV. OF J.W. HARRIS CO., INC.
COMPANY ADDRESS 1051 YORK RD
KINGS MOUNTAIN, NC 28086
EMERGENCY PHONE NUMBER (800)-424-9300
MSDS VERSION NUMBER 2
TRADE NAME AZ61A MAGNESIUM WELDING ROD

HAZARD RATING (HMIS) HEALTH-1
FLAMMABILITY-2
REACTIVITY-1
OTHER-1
HMIS DESIGNATED KEY 4-SEVERE HAZARD
3-SERIOUS HAZARD
2-MODERATE HAZARD
1-SLIGHT HAZARD
0-MINIMAL HAZARD

SECTION 2

HAZARDOUS COMPONENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	ACGIH TLV (Mg/M3)	SEC 313
ALUMINUM	6.50%	7429-90-5	NA	YES
ZINC	1.00%	7440-66-6	NA	YES
MANGANESE, MIN.	0.15%	7439-96-5	NA	NA
MAGNESIUM	BAL.	7439-95-4	NA	NA

SECTION 3

PHYSICAL PROPERTIES

BOILING POINT NOT DETERMINED
MELTING POINT APPROXIMATELY 1145F (618C)
VAPOR PRESSURE NA
VAPOR DENSITY (AIR=1) NA
SOLUBILITY IN WATER NA
SPECIFIC GRAVITY APPROX. 1.80
EVAPORATION RATE NA
APPEARANCE AND ODOR SILVER SOLID. NO ODOR.

SECTION 4

FIRE AND EXPLOSION DATA

FLASH POINT NA
EXTINGUISHING MEDIA SMOOTHER 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
ASSOC. FOR OTHER INFORMATION.
SPECIAL PROCEDURES FIRE & EXPLOSION HAZARDS-WHEN HEATED IN AIR TO TEMP NEAR ITS
MELTING POINT, MAGNESIUM ALLOYS IGNITE AND BURN WITH WHITE
FLAME. WATER ON BURNING Mg. WILL PRODUCE HYDROGEN GAS AND
MAY CAUSE EXPLOSION.
UNUSUAL HAZARDS FIRE-FIGHTING EQUIPMENT SHOULD INCLUDE WEARING POSITIVE
PRESSURE SELF-CONTAINED BREATHING APPARATUS.

SECTION 5

REACTIVITY DATA

STABILITY STABLE
CONDITIONS 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 POLYMERIZATION WILL NOT OCCUR.
INCOMPATIBILITY SEE ABOVE.
HAZARDOUS DECOMPOSITION PRODUCTS NONE UNDER NORMAL USE OR STORAGE. SEE INCOMPATIBILITY
STATEMENT AND FIRE AND EXPLOSION HAZARD DATA, SECTION 3, FOR
SPECIAL SITUATIONS.

SECTION 6

HEALTH HAZARD DATA

ROUTES OF ENTRY EYE, SKIN CONTACT, SKIN ABSORPTION, INGESTION, INHALATION,
SYSTEMIC & OTHER EFFECTS
HEALTH HAZARDS EYE-MECHANICAL. SKIN CONTACT-MECHANICAL SKIN ABSORPTION-
UNLIKELY. INGESTION-UNLIKELY. INGESTION OF LARGE AMOUNTS OF
DUST COULD CAUSE SERIOUS INJURY, EVEN DEATH, BECAUSE ACUTE
ORAL TOXICITY OF MAGNESIUM IS MODERATE. INHALATION-DUST
IRRITATION TO RESPIRATORY TRACT. SYSTEMS & OTHER EFFECTS-
EXPOSURES INCIDENTAL TO INDUSTRIAL HANDLING ARE NOT
ANTICIPATED TO CAUSE ADVERSE EFFECTS. REPEATED EXCESSIVE
(HEALTH HAZARDS CONT) EXPOSURE TO FUMES OR DUST OF A
NUMBER OF METALS, INCLUDING ALUMINUM, MAY CAUSE CENTRAL
NERVOUS SYSTEM AND DEVELOPMENTAL EFFECTS.

CARCINOGENICITYNA
 SIGNS & SYMPTOMS OF EXPOSURESEE ABOVE
 MEDICAL CONDITIONS FROM EXPOSURE.....SEE ABOVE
 EMERGENCY & FIRST AIDEYES-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 PHYSICIAN. INHALATION-REMOVE TO FRESH AIR IF DUST
 INHALATION, CALL PHYSICIAN. NOTE TO PHYSICIAN: NO SPECIFIC
 ANTIDOTE FOR DUST INHALATION.
 ADDITIONAL INFORMATIONNA

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURESCLEAN OFF AND USE.
 WASTE AND DISPOSAL METHODDISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
 REGULATIONS.
 HANDLING AND STORING PRECAUTIONSEXPOSURE GUIDELINE: MAGNESIUM-NONE ESTABLISHED FOR METAL.
 FOR OXIDE FUME OSHA PELIS 10 MG/M3. ALUMINUM-FOR METALS
 ACGIH TLV 10 MG/M3 AND OSHA PEL 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 METAL. ZINC OXIDE-FOR DUST, OSHA PEL 10
 MG/M3 TOTAL, 5 MG/M3 RESPIRABLE AND ACGIH TLV IS10 MG/M3 STEL.
 OTHER PRECAUTIONSNA

SECTION 8 CONTROL MEASURES

RESPIRATORY MEASURESINDUSTRY ATMOSPHERES USE AN APPROVED DUST RESPIRATOR.
 VENTILATIONGOOD GENERAL VENTILATION SHOULD BE SUFFICIENT FOR MOST
 CONDITIONS. LOCAL EXHAUST VENTILATION MAY BE NECESSARY FOR
 SOME OPERATIONS.
 PROTECTIVE GLOVESAS APPROPRIATE
 EYE PROTECTION.....USE SAFETY GLASSES. IF DUST EXPOSURE CAUSES EYE
 DISCOMFORT, USE CHEMICAL GOGGLES
 OTHER PROTECTIVE EQUIPMENTWEAR CLEAN, LONG SLEEVED, BODY-COVERING CLOTHING.
 WORK/HYGIENIC PRACTICESFOR MAXIMUM SAFETY: BE CERTIFIED FOR, AND WEAR A RESPIRATOR
 AT ALL TIMES WHEN WELDING AND OR BRAZING.

SECTION 9 DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WELCO MAKES NO WARRANTY TO AND DISCLAIMS ALL LIABILITY FROM RELIANCE.

SECTION 10 ADDITIONAL INFORMATION

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING. IF
 OPERATIONS INVOLVING THIS PRODUCT, SUCH AS MACHINING,
 PRODUCE FINES, SUCH AS DUST, POWDER, CHIPS, OR TURNINGS,
 PROPER MEASURE SHOULD BE TAKEN TO PREVENT DUST CLOUDS
 AROUND THESE OPERATIONS. THESE FINES SHOULD BE COLLECTED
 FREQUENTLY AND 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. PRACTICE REASONABLE
 CARE IN HANDLING 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 ASSOC.
 BULLETINS NFPA 651,"MANUFACTURE OF ALUMINUM AND MAGNESIUM
 POWDER" FOR MORE DETAILED INFORMATION. SARA HAZARD INFO:
 UNDER EPA "HAZARD CATEGORIES" UNDER SECTION 311 AND 312 OF
 THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986
 (SARA TITLE III), THIS PRODUCT IS CONSIDERED, UNDER APPLICABLE
 DEFINITION NOT TO HAVE MET ANY HAZARD CATEGORY.
 NA - NOT AVAILABLE