

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet (MSDS) complies with the requirements of OSHA's Hazard Communication Standard.

COPPER ALLOY WELDING WIRE

RADNOR WELDING PRODUCTS		Emergency Phone Number: 866-734-3438		
Date: April 30, 2006		Product Information Number: 888-838-0615		
SECTION 1 – PRODUCT IDENTIFICATION				
Product Name/Class	AWS A5.7 ER Cu. Copper Alloy Welding Wire			
Product Number	004018			
Manufacturer	Radnor Welding Products 259 N. Radnor-Chester Road Suite 100 Radnor, PA 19087-5283			
SECTION 2 – HAZARDOUS INGREDIENTS				
Ingredient	CAS Number	Percent	Exposure Limits	
			TLV	PEL
Copper (Dust)	7440-50-8	Balance	1 MG/M3	N/A
Lead (Dust)	7439-92-1	0 - .8	0.15 MG/M3	N/A
Manganese	7439-96-5	.5 – 1.4	5 MG/M3	N/A
Silicon	7440-21-3	2.8 – 3.8	10 MG/M3	N/A
Zinc	1314-13-2	0 – 1	10 MG/M3	N/A
SECTION 3 – PHYSICAL CHARACTERISTICS				
Boiling Point: N/A	Specific Gravity (H ₂ O = 1): 7.4 – 9.0		Solubility in Water : N/A	
Vapor Pressure (mm Hg): N/A	Melting Point: N/A		%Volatile: N/A	
Vapor Density (Air = 1): N/A	Evaporation Rate (Butyl Acetate=1): N/A		Appearance and Odor: Silver or yellow to red. No odor.	
SECTION 4 – FIRE and EXPLOSION HAZARD DATA				
Flash Point (Method Used): N/A	Flammable Limits:		LEL: N/A UEL: N/A	
Extinguishing Media: Use special mixtures of dry chemical or sand.				
Special Fire Fighting Procedures: Non Flammable. Welding arc and sparks can ignite combustibles and flammables. Refer to American National Standard Z49.1 for fire prevention during the use of welding and allied procedures.				
Unusual Fire and Explosion Hazards: See above. Fire fighters should wear self-contained breathing apparatus and protective clothing.				
SECTION 5 – REACTIVITY DATA				
Stability	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>	Conditions to Avoid: Molten metal may react violently with water.		
Incompatibility (Materials to Avoid): Mercury, Ammonia and Acetylene				
Hazardous Decomposition or Byproducts: Metal fume				
Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid: N/A		
SECTION 6 – HEALTH HAZARD DATA				
Routes of Entry: <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Skin <input type="checkbox"/> Ingestion				
Health Hazards (Acute and Chronic): Respiratory tract irritation, metal fume fever, eye irritation. Long term repeated exposures to excessive fume concentrations may lead to intoxication including kidney disease, anemia, nervous disorders, birth defects and nasal and lung cancer.				
Carcinogenicity: N/A NTP: N/A IARC: N/A OSHA Regulated: N/A				
Signs and Symptoms of Exposure: Under normal handling conditions, the solid alloy presents no health hazards.				
Medical Conditions Generally Aggravated by Exposure: See Above.				
Emergency and First Aid Procedures: Flush eyes with water. Get medical attention. Vacuum off excess dust from skin. Wash well with soap and water. Remove to fresh air. Get medical attention. Seek medical attention if large quantities of material have been ingested.				

HMIS Rating Health = 2 Flammability = 0 Reactivity = 0	HMIS Scale 4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard	NFPA Rating Health = 1 Flammability = 0 Reactivity = 0 Other = 0	NFPA Scale 4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard
SECTION 7 – PRECAUTIONS for SAFE HANDLING and USE			
Steps to Be Taken in Case Material Is Released or Spilled: If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentration of airborne dust. If liquids are spilled, evacuate unprotected personnel from area. Absorb liquid by means of dry sand or similar material. Follow State, Federal, and local regulations concerning disposal of waste.			
Waste Disposal Method: Maximize product recovery for reuse or recycling. Conditions of use may cause this material to become a solid hazardous waste as defined by state or local laws.			
Precautions to Be Taken In Handling and Storing: Good housekeeping must be practiced during storage, transfer and use to avoid excessive dust accumulations.			
Other Precautions: None			
SECTION 8 – CONTROL MEASURES			
Respiratory Protection (<i>Specify Type</i>) Approved respiratory protection as specified in NIOSH/OSHA Health Guidelines.			
Ventilation: Local exhaust required if dust or fume created in handling. Mechanical as above to reduce airborne dust.			
Protective Gloves: Required for melting, grinding, cutting or welding operations.		Eye Protection: Safety glasses with sideshields.	
Other Protective Clothing or Equipment: As required for the work done on or with the metal.			
Work/Hygienic Practices: Meet requirements of OSHA lead standard where necessary.			
OTHER INFORMATION REQUIRED BY STATE OR FEDERAL LAW			
California Proposition 65 Information: Warning: This product contains a chemical known to the State of California to cause cancer.			
New Jersey Right-To-Know Information: 5 most predominant ingredients/hazardous and non-hazardous) 1. Copper (Dust); 2. Silicon; 3. Manganese; 4. Lead (Dust); 5. Zinc			
SARA Title III Notification Information: All chemical compounds marked with an asterisk (*) are toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Super Fund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.			
Disclaimer of Expressed and Implied Warranties: The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use.			