



Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)

GROUP IV SOLDIERS (see pages 3 & 4)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
SILVER (Ag)	CAS #7440-22-9	0.1mg/m ³		
COPPER (Cu)	CAS #7440-50-8	0.2mg/m ³ (as fume)		
ZINC (Zn)	CAS #7440-66-6	5mg/m ³ (as zinc oxide fume)		

Section III - Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	N/A
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		
Appearance and Odor	METALLIC - ROD, STRIP, WIRE OR POWDER. ODORLESS.		

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
N/A	N/A	N/A	N/A
Extinguishing Media	N/A		
Special Fire Fighting Procedures	N/A		

Unusual Fire and Explosion Hazards

N/A

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	STABLE AT ROOM TEMPERATURE.

Incompatibility (Materials to Avoid)

NONE KNOWN.

Hazardous Decomposition or Byproducts

CU FUMES, ZN OXIDE, AN METAL MAY BE GENERATED DURING BRAZING. AVOID OVERHEATING.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI — Health Hazard Data

Route(s) of Entry: Inhalation? YES Skin? YES Ingestion? YES

Health Hazards (Acute and Chronic)
MAJOR CONCERNS OF A Cu, Zn, Cu SYSTEM THROUGH FUME AND DUST INHALATION ARE "BRASS CHILLS", IRRITATION OF THE RESPIRATORY TRACT, NAUSEA, AND IN SOME CASES MAY CAUSE DISCOLORATION OF THE SKIN AND HAIR.

Carcinogenicity: NTP? NO IARC Monographs? NO OSHA Regulated? NO

Signs and Symptoms of Exposure FEVER, CHILLS, IRRITATION OF THE RESPIRATORY TRACT, NAUSEA AND IN SOME CASES MAY CAUSE DISCOLORATION OF THE SKIN AND HAIR.

Medical Conditions
Generally Aggravated by Exposure RESPIRATORY CONDITIONS.

Emergency and First Aid Procedures IF DUST OR FUMES GETS INTO EYES, IRRIGATE IMMEDIATELY. IF A PERSON BREATHEs IN LARGE AMOUNTS OF DUSTS OR FUMES, MOVE THE EXPOSED PERSON TO FRESH AIR AT ONCE AND PERFORM ARTIFICIAL RESPIRATION. IF SWALLOWED, GET MEDICAL ATTENTION IMMEDIATELY. GIVE LARGE QUANTITIES OF WATER AND INDUCE VOMITING. DO NOT MAKE AN UNCONSCIOUS PERSON VOMIT.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
NO PROBLEM IN PICKING UP WIRE, ROD, OR STRIP FORMS OF THE ALLOY. FOR USE, RECLAIM OR SCRAP.

Waste Disposal Method CONSIDER POSSIBLE RECLAIM VALUE. SCRAP ALLOY CAN BE DISPOSED OF THROUGH A LICENSED WASTE DISPOSAL COMPANY, IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE DISPOSAL OF COLLECTED FUMES, (SEE SECTION VIII) FROM THE EXHAUST VENTILATION SYSTEM MUST BE CONSIDERED ALSO.

Precautions to Be Taken in Handling and Storing
NONE KNOWN.

Other Precautions
NONE KNOWN.

Section VIII — Control Measures

Respiratory Protection (Specify Type) IN CONFINED SPACE USE AN AIRLINE RESPIRATOR OR HOSE MASK. NIOSH, U.S. BUREAU OF MINES APPROVED HOSE TYPE C OR SELF-CONTAINED AIR RESPIRATOR.

Ventilation FOR FUMES & GASES	Local Exhaust AIR FLOW TO PRODUCE VELOCITY OF 100 LINEAR FT/MIN IN BRAZING ZONE	Special	SEE FOOTNOTE
	Mechanical (General) 2000 CF FT/MIN/BRAZER	Other	SEE FOOTNOTE

Eye Protection PLASTIC FRAME SAFETY GLASSES WITH SIDE SHIELDS FILTER LENSES (SHADE 3 & 4)

Hand Protection LEATHER WELDING GLOVES

Other Protective Clothing or Equipment
NORMAL CLOTHING FOR TORCH BRAZING.

Work Practices
LAUNDRY SOILED CLOTHING BEFORE REUSE. WASH THOROUGHLY WITH SOAP AND WATER AFTER USE.