

Form Approved  
GSA No. 04-01227

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

**Emergency telephone number**  
**(CHEMTEL): (800) 255-3924**  
**(CHEMTEL International): (+01) 813-248-0585**  
**Collect calls are accepted**

FORMULA  
92.5% Cu, 7.5% P

Filler Metal & Flux Components	Cas#	ACGIH* T-V-TWA	Decomposition Products	Cas#	ACGIH* T-V-TWA
Copper (Cu)	7440-50-8	92.5 N.A.	Copper Fume (Cu)	7440-50-8	92.5 0.2 mg/m <sup>3</sup>
Phosphorus (P)	7723-14-0	7.5 N.A.	Phosphorus Fume (P)	7723-14-0	7.5 0.1 mg/m <sup>3</sup>

\*\*Approximate milligrams of substance per cubic meter of air or parts per million-time weighted average per workday. (See ANSI/AWS Fl.1 for sampling and testing methods)

BOILING POINT (°F)	N.A.	SPECIFIC GRAVITY (M.P.O.)	N.A.
VAPOR PRESSURE (mm Hg)	N.A.	PERCENT. VOLATILE BY VOLUME (%)	N.A.
VAPOR DENSITY (AIR=1)	N.A.	EVAPORATION RATE # _____ = 1)	N.A.
SOLUBILITY IN WATER	N.A.		
APPEARANCE AND ODOR	Metallic- rod, strip, wire, or powder		

FLASH POINT (MAYBE USED)	N.A.	FLAMMABLE LIMITS	N.A.	ARI	SEL
EXTINGUISHING MEDIA	N.A.				
SPECIAL FIRE FIGHTING PROCEDURES	N.A.				
ORIGINAL FIRE AND EXPLOSION HAZARDS	N.A.				

# SECTION V - HEALTH HAZARD DATA

**THRESHOLD LIMIT VALUES:** 0.2 mg/m<sup>3</sup> Cu fume; 0.1 mg/m<sup>3</sup> P fume

**MAJOR EXPOSURE HAZARD:** Inhalation

**CUMULATIVE LIMITS:** Welding (Brazing) Fumes- Total Particulate ( $C_1+C_2 \leq 1$  mg/m<sup>3</sup>)  
(C=Concentration: T=TLC) ( $C_1/T_1+C_2/T_2 \dots C_N/T_N \leq 1$ )

**EFFECTS OF OVEREXPOSURE:** Cu, P system can cause irritation of the upper respiratory tract, metallic taste in mouth, nausea, and metal fume fever. Acute phosphorus poisoning usually occurs as a result of accidental or suicidal ingestion. Carious teeth and poor dental hygiene increase susceptibility.

**FIRST AID:** If dust or fumes gets into eyes irrigate immediately. If a person breathes in large amounts of dust or fumes, move the exposed person to fresh air at once, contact physician, and give oxygen or artificial respiration. If swallowed get medical attention immediately. Give large quantities of water and induce vomiting. Do Not make an unconscious person vomit.

# SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE	X Stable at room temperature

**INCOMPATIBILITY (MATERIALS TO AVOID):** N.A.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Cu fumes, P fumes may be generated during brazing avoid overheating

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	X

# SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** No problem in picking up wire, rod, or strip form 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.

# SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION:** None for brazing in properly ventilated area. 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 AND GASES	LOCAL EXHAUST: Air flow to produce velocity of 100 linear ft./min. in brazing zone.	SPECIAL: See Footnote
	MECHANICAL: 2000 cu. ft./min./brazing	OTHER: See Footnote

**PROTECTIVE GLOVES:** Leather Welding Gloves

**EYE PROTECTION:** Plastic frame safety glasses with side shields filter lenses (shade #3&4)

**OTHER PROTECTIVE EQUIPMENT:** Normal clothing for torch brazing

# SECTION IX - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING & STORING:** Avoid heating above recommended brazing temperature range (1325-1500°F) as excessive fumes may result. Store brazing alloy, carefully in a clean, dry place to prevent contamination. Keep away from strong oxidizing agents.

**OTHER PRECAUTIONS:** Follow safety and legal requirements in brazing with this alloy and using a fluoride-containing flux (a usual practice). Fluoride flux when heated gives off fumes that can irritate eyes, nose and throat. Avoid fumes. (TLV=2.5mg/m<sup>3</sup>) Use only in well ventilated spaces. Avoid contact of flux with eyes or skin. Do not take flux internally (see footnote).

**\*FOOTNOTE:** Refer to "OSHA Standard 29 CFR 1910" from the U.S. government printing office Washington D.C. 20 W2 and ANSI standard 249.1- "Safety in Welding & Cutting", published by the American Welding Society.