

MATERIAL SAFETY DATA SHEET

B3-1

UNITED STATES METAL POWDERS, INC.  
408 U.S. HIGHWAY 202  
FLEMINGTON, NJ 08822  
TELEPHONE: 908-782-5454

HMIS RATING:  
HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0  
PERS. PROTECTION: E

SECTION I. MATERIAL IDENTIFICATION

Material Name: BRONZE POWDER  
Item Number: B-401, B-402, B-406, B-408, B-409, B-409TR, B-419, B-432  
SPHERICAL BRONZE: 22/36, 30/44, 36/44, 36/60, 85/120, 85/150, 85/200, 89/11, 100/240, 120/200, 170/300, SBP90/10 -325, LF5, SBP80/20-240  
CAS Number: ALLOY

SECTION II. INGREDIENTS AND EXPOSURE LIMITS

Ingredient	CAS Number	%	ACGIH	OSHA
			TLV-TWA	PEL-TWA
COPPER	7440-50-8	50-90	1 mg/m3	dust 1.0 mg/m3 fume 0.1 mg/m3
TIN	7440-31-5	10-50	2 mg/m3	2.0 mg/m3

SECTION III. PHYSICAL DATA

Appearance and Odor: Reddish to gold color, odorless.

	COPPER	TIN
Boiling Point:	4653 °F (2567 °C)	4100 °F (2260 °C)
Evaporation Rate:	N/A	N/A
Vapor Pressure(1mm Hg):	@2962°F (1628°C)	N/A
Specific Gravity (H2O=1):	8.92	7.28
Water Solubility (%):	INSOLUBLE	INSOLUBLE
Melting Point:	1981 °F (1083 °C)	449 °F (232 °C)
Vapor Density (air=1):	N/A	N/A
% Volatile by Volume:	0	0
Molecular Weight:	63.54	118.7

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point: N/A

	COPPER	TIN
Limits: LEL%:	N/A	0.19 oz/ft3
UEL%:	N/A	N/A
Extinguishing media:	Foam, CO2, Dry Chemical, Water Fog.	

SECTION V. REACTIVITY DATA

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Material is stable.

Hazardous polymerization will not occur.

**Chemical incompatibilities:** Strong alkalies, chlorates, bromates, turpentine, mineral acids, amines.

**Hazardous decomposition products:** Decomposition may yield hydrogen and noxious copper compounds.

**SECTION VI. HEALTH HAZARD INFORMATION**

**Target organs:** Respiratory system, nasal septum, skin, eyes, gastrointestinal system, kidneys, liver, cardiovascular system.

**Primary entry routes:** Inhalation, ingestion, skin or eye contact.

**Health effects:** Copper dusts and mists are eye and mucous membrane irritants and skin sensitizers. Acute exposure may cause metallic taste and nasal ulceration and perforation. Prolonged skin contact may produce sensitization dermatitis. Exposure may result in irritation and metal-fume fever, metallic taste, and discoloration of the skin and hair. Ingestion of copper compounds may cause vomiting and collapse. Acute poisoning is characterized by hemolysis, jaundice, anuria, hypotension and convulsions.

Inorganic tin compounds are eye, mucous membrane and primary skin irritants, Acute exposure may irritate the eyes and respiratory tract. Repeated or prolonged skin contact produces dermatitis.

**First Aid:**

**Eye contact:** Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Seek medical attention immediately. Contact lenses should not be worn.

**Skin contact:** Flush contaminated skin with water. Seek medical attention if irritation occurs/persists.

**Inhalation:** If a person breathes in large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep affected person warm and at rest. Seek medical attention as soon as possible.

**Ingestion:** Emergency treatment: dilute with water or milk. Remove by gastric lavage (i.e. stomach tube) unless patient is vomiting. Get medical attention as soon as possible.

**SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES**

**Spill/leak procedures:** Sweep gently to avoid dust cloud formation.

**Disposal:** Dispose of in accordance with local, state, and federal regulations.

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SECTION VIII. SPECIAL PROTECTION INFORMATION

**Personal protective equipment:**

**Goggles:** Safety goggles with side shields, if needed.

**Gloves:** Required for those with extreme sensitivity.

**Dust Mask:** Use in confined or enclosed spaces.

**Workplace considerations:** Eye-wash fountain, soap and water wash station.

**Ventilation:** Sufficient ventilation, in volume and pattern should be provided to keep air contamination below current applicable OSHA permissible exposure limits.

SECTION IX. SPECIAL PRECAUTIONS

**Special handling/storage:** N/A

SECTION X. CARCINOGENICITY STATUS

1.NTP: Not Listed. 2.IARC: Not Listed. 3.OSHA: Not listed.

SECTION XI. SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<u>CAS#</u>	<u>Chemical Name</u>	<u>Percent by Weight</u>
7440-50-8	Copper	50-90%

This information must be included in all MSDSs that are copied and distributed for this material.

SECTION XII. EMERGENCY CONTACT

CHEMTREC: (800) 424-9300 To be used "ONLY IN THE EVENT OF CHEMICAL EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT INVOLVING CHEMICALS".

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**DISCLAIMER OF LIABILITY**

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