

SAFETY DATA SHEET

SECTION 1. Identification of the Substance and Manufacturer

Product: **Bronze Powder (Alloy)**

Stock Number: B-401, B-402, B-406, B-407, B-409, B-420, B-444, B-445, B-450. B-451, B-452, B-453, M3000, M3200

Manufacturer: Royal Metal Powders, Inc.
433 Continental Drive
Maryville, TN 37804 U.S.A.
+1(865) 982-8096 (Phone) +1(865) 977-8068 (Fax)

24-Hour Emergency: CHEMTREC (Contract number 632044)
Domestic North America +1-800-424-9300
International +1-703-527-3887 (collect calls accepted):

Local Contact, (if applicable):

SECTION 2. Hazard Identification

Classification System:

The classification is based on the criteria in the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

GHS Label Elements Warning



Causes serious eye irritation
May cause respiratory irritation

Prevention:

Avoid breathing dust
Use only outdoors or in a well-ventilated area
Wash hands thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
If eye irritation persists get medical advice/attention

Disposal:

Dispose of contents/container in accordance with local/national/international regulations.

SECTION 3. Composition/Information of Ingredients

Ingredient	%	EC Number	CAS No.
Copper	50 – 91	231-159-6	7440-50-8
Tin	9 -- 50	231-141-8	7440-31-5

SECTION 4. First Aid Measures

INHALATION: Remove to fresh air. Lay patient down. Cover with blanket.
 INGESTION: Give 200-300 mL water to drink. DO NOT induce vomiting.
 SKIN CONTACT: For skin exposure, remove contaminated clothing and wash with soap and water.
 EYE CONTACT: If irritated, flush eyes and skin with large volumes of fresh water for 15 minutes.
 MEDICAL NOTES: If any adverse symptoms persist seek immediate medical attention.

SECTION 5. Fire-Fighting Measures

Extinguishing Media: CO₂, ABC extinguisher, or water spray.
 Special Fire Fighting Procedures: Material is non-flammable. Use firefighting measures appropriate to surrounding materials..
 Personal Protective Equipment: Wear self-contained breathing apparatus.



SECTION 6. Accidental Release Measures

Personal Precautions:	Spilled material may produce dust hazard if not handled correctly. Wear appropriate personal protective equipment: coveralls, gloves & eye protection..
Methods for Clean Up:	Contain spillages and clean up with vacuum or conventional tools and attempt to minimize dusting. Place in a suitable container for recycling or disposal in accordance with local and national waste regulations.
Method of Disposal:	Place in a suitable container for recycling or disposal in accordance with local, state, and/or federal regulations.

SECTION 7. Handling and Storage

Handling:	Only use in a well-ventilated area and prevent the creation of dusts. If concentrations exceed the occupational exposure limits, use suitable respiratory protection.
Storage:	Store in a cool, dry, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep lids of container tightly sealed.

SECTION 8. Exposure Controls/Personal Protection

Occupational Exposure Standards:	8-hour TWA 1. Copper Powder as dust and mist OSHA PEL: 1 mg/m ³ and ACGIH TLV: 1 mg/m ³ 2. Tin Powder as dusts OSHA PEL: 2 mg/m ³ 8-hour TWA and ACGIH-TVL: 2 mg/m ³ 8-hour TWA
Occupational Exposure Controls:	All personal protective equipment, including respiratory equipment, used to control exposure to hazardous substances must be selected to meet the requirements of national personal protective equipment regulations.
Ventilation:	To keep below the U.S.A. OSHA and EU exposure limits, use general dilution type ventilation.
Personal Protection Respiratory Protection:	Cartridge type particulate filter respirator or dust-mask conforming to U.S.A. NIOSH. Refer to Respiratory Protective Devices approved by NIOSH under 42 CFR 84 and the appropriate European standard.
 Hand Protection:	Wear if skin contact is probable and skin is sensitive.
 Eye Protection:	Safety glasses or goggles.
Skin Protection:	Long sleeve shirt(s) if contact is probable and skin is sensitive.
Environmental Protection:	Do not allow to enter drains or watercourses.

SECTION 9. Physical and Chemical Properties

Appearance:	Yellowish to Tan Color	Odor:	None
	Copper		Tin
Boiling Point:	2567°C		2207°C
Melting Point:	1083°C		232°C
Specific Gravity:	8.94		7.31
Vapor Pressure:	NA		NA
Vapor Density:	NA		NA
Evaporation Rate:	NA		NA
Solubility in water:	Insoluble		Insoluble
Volatile by Volume, %:	0		0
Molecular Weight:	63.54		118.7

SECTION 10. Stability and Reactivity

Stable X Unstable _____

Conditions & Materials to Avoid:

- Temperatures above 100 °C while in the presence of moist air.

Hazardous Decomposition Products:	Metal fumes will be released if heated above the elements melting point
Hazardous Polymerization:	Will Not Occur

SECTION 11. Toxicological Information

Signs, symptoms, and effect of over exposure:

Eyes: Redness, tearing, itching, burning and conjunctivitis
Ingestion: Irritation and burning sensations of mouth and throat, nausea, abdominal pain with possible diarrhea.
Inhalation: Irritation of the mucous membranes, coughing, wheezing, shortness of breath. Prolonged exposure may cause metallic taste.

Acute Health Effects:

This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA.

None Established

SECTION 13. Disposal Considerations

PACKAGING: Dispose of in accordance with procedures applying to the disposal of the product.
PRODUCT: Dispose of surplus and contaminated materials (including sawdust) at an approved landfill or in accordance with other national or regional provisions.

SECTION 14. Transportation Information

US DOT: Not a hazardous material for transportation.

DOT regulations:

Hazardous Class: None

Land transport ADR/RID (cross-border)

Hazardous Class: None

Maritime transport: IMDG:

Hazardous Class: None

Marine Pollutant: No

SECTION 15. Regulatory Information

U.S. EPA EPCRA Section 313 Reportable Product – (contains copper)

U.S. EPA Reportable Quantity: 5,000 lbs. (2,270 kg)

All components of this product are on the TSCA inventory requirements under 40 CFR720.30

SECTION 16. Other Information

Keep out of reach of children. Read and follow all label instructions. This information is based on our present knowledge. However, this is not a guarantee of specific product features. It is the user's responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.