

# MATERIAL SAFETY DATA SHEET - BRONZE POWDER

This MSDS summarises our best knowledge of the health and safety hazard information of the products and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

## STATEMENT OF HAZARDOUS NATURE Hazardous according to Worksafe Australia criteria

### COMPANY DETAILS

Date: 05/03/2003  
Company: Australian Metal Powders Supplies Pty Ltd ABN 90 074 452 556  
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Emergency: 13 11 26 Australian Poisons Centre  
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### IDENTIFICATION

Product Name	Bronze Powder
Proper Shipping Name	None Allocated
UN Number	None Allocated
DG Class	None Allocated
Packing Group	None Allocated
Hazchem Code	None Allocated
Poisons Schedule	Not Scheduled
Product Use	Powder metallurgy applications and surface coating.

### Physical Data

Appearance	Yellow-gold to brown metallic powder, with variable grade size.
Melting Point	> 750° C sinters
Boiling Point	2567°C (estimated)
Vapour Pressure	Not applicable
Molecular Weight	Not applicable
Specific Gravity	2.8 - 3.8 (water=1)
Flash Point	Not applicable
Flamm. Limit LEL	Not available
Flamm.Limit UEL	Not available
Solubility in Water	Insoluble

### Other Properties

Stability	Stable under normal conditions of use.
Haz. Polymerization	Will not occur.
Materials to Avoid	Strong oxidising agents and acids.

### Ingredients

Ingredients	Name	CAS	Proportion
	Tin	7440-31-5	0-30%
	Copper	7440-50-8	60-100%

## HEALTH HAZARD INFORMATION

### Health Effects

<b>Acute- swallowed</b>	Not a likely source of exposure, however if ingested may cause irritation to the mouth, oesophagus and stomach. Symptoms can include nausea, vomiting, cramping, diarrhoea, fatigue and abdominal pain.
<b>Acute-Eye</b>	May cause mechanical irritation in contact with the eyes. Not anticipated to cause permanent eye injury.
<b>Acute- Skin</b>	May cause mechanical irritation in contact with the skin.
<b>Acute – Inhaled</b>	Inhalation of dust may cause irritation to the mucous membrane and upper airways. Inhalation of fumes from molten product may result in metal fume fever, symptoms of which are characterized chiefly by fever, chills, headache, fatigue, cough and abdominal discomfort.
<b>Chronic</b>	Prolonged or repeated exposure to fumes or dust can result in irritation to the respiratory tract.

### First Aid

<b>Swallowed</b>	Never give anything by mouth if victim is semi-conscious or unconscious. Immediately wash out mouth with water, and then give plenty of water to drink. If swallowed, and if more than 15 minutes from hospital, induce vomiting, preferably using Ipecac Syrup, APF. Avoid milk and oils. Seek medical attention.
<b>Eye</b>	If contact with the eye(s) occur, wash with copious amounts of water for a minimum of 20 minutes holding eyelids open. If irritation develops and persists seek medical attention.
<b>Skin</b>	Wash gently and thoroughly with water and non-abrasive soaps. Ensure contaminated clothing is washed before re-use or discard. If irritation develops and persists seek medical attention.
<b>Inhaled</b>	Remove the source of contamination or move the victim to fresh air. Have victim blow nose to remove excess dust. Ensure airways are clear and have a qualified person give oxygen through a facemask if breathing is difficult. If irritation develops and persists seek medical attention.
<b>First Aid Facilities</b>	Eye wash and normal washroom facilities.
<b>Advice to Doctor</b>	Treat symptomatically or consult a Poisons Information Centre.

## PRECAUTIONS FOR USE

Exposure Limits	Name	STEL mg/m <sup>3</sup> ppm	TWA mg/m <sup>3</sup> ppm	TWA Footnote
	Copper		1	
	Tin		2	

**Eng. Controls** Natural ventilation should be sufficient, however where dust or fumes are generated the use of a mechanical exhaust ventilation system is recommended.

## **Personal Protection**

**Respirator Type** Where ventilation is inadequate and dust or vapours are generated the use of an Air Purifying Respirator with a Class P2 filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended.

**Eye Protection** The use of chemical goggles or safety glasses with side shield protection is recommended.

**Glove Type:** The use of Nitrile or Cotton gloves is recommended.

## **Flammability**

**Fire Hazards** Not flammable

<b>SAFE HANDLING INFORMATION</b>
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## **Storage and Transport**

**Storage Precautions** Avoid storage with strong acids and oxidising agents.

**Transport** Not classified as a Dangerous Good, according to the Australian Code for the Transport of Dangerous Goods by Rail and Road.

**Handling** Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use a well-ventilated area. Avoid contact with incompatible materials. When handling DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Always wash hands and face with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. Remove protective clothing when leaving work area.

**Proper shipping Name** None allocated.

## **Spills and Disposal**

Increase ventilation. Wear sufficient respiratory protection and protective clothing. Prevent spillage from entering drains, sewers or watercourses. Vacuum up material to avoid dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Use absorbent paper dampened with water to pick up remaining material. Wash surfaces well with water. Seal all wastes in vapour tight labelled plastic containers for eventual disposal. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority. Recycle spilt material where possible. Consult State Waste Disposal authority for disposal requirements.

## **Fire/Explosion Hazard**

### **Fire Fighting Precautions**

Wear Self-Contained Breathing Apparatus (S.C.B.A.) and full protective clothing to minimise skin exposure.

**Extinguishing Media** Use appropriate fire extinguisher for surrounding environment.

**Hazchem Code** None Allocated

<b>OTHER INFORMATION</b>
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### **IMPORTANT NOTE:**

The information contained in this Material Safety Data Sheet (MSDS) is believed by Australian Metal Powders Supplies (AMPS) to be accurate at date of issue, but is subject to change without notice, and no warranty, expressed or implied, is made as to its accuracy,

It is the responsibility of the user to ensure that this document is current. It is the responsibility of every person dealing with the product referred to herein to review the MSDS and assess the potential implications for any particular use of the material and the appropriate precautions which should be adopted, including making the MSDS available to all users. As a supplier cannot anticipate or control the conditions under which the products are used, stored, transported, handled or disposed of (its "use" which include "misuse") AMPS accepts no liability whatsoever for damage or injury, however caused, from use of our products or the information contained herein.

According, any person using this product undertakes such use voluntarily, assumes all risk associated with that use, and accepts responsibility for ensuring that appropriate safe practices are adopted. Any purchaser of this product from AMPS agrees to release and indemnify AMPS to the extent possible at law in respect of any liability which may arise directly or indirectly from its use of the product.

If clarification or further information is needed to ensure that an appropriate assessment of the product can be made, the user should contact AMPS.

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