

MATERIAL SAFETY DATA SHEET

BRONZE POWDER

1. Substance

Product Name: Bronze Powder

2. Composition

<u>Substance</u>	<u>Typical Composition</u>	<u>TLV (mg/m3)</u>	<u>CAS Numbers</u>
Copper Cu	89% approx	1	7440-50-8
Tin Sn	11% approx	2	7440-31-5

3. Hazards Identification

Potential risk of explosion with acetylenic compounds.
Will react violently with oxidising agents and halogens.
Inhalation of large quantities may cause metal fume fever.
Can cause irritation to upper respiratory tract.

4. First-Aid Measures

Inhalation: Remove from area of exposure into fresh air and keep at rest - if necessary seek medical attention.

Eye Contact: Immediately rinse thoroughly with water

Skin Contact	Wash with mild soap and water and apply hand lotion - remove contaminated clothing.
Ingestion	No specific first aid required but if necessary seek medical attention.
Wounds	Clean and remove all powder particles, rinse with water and apply antiseptic cream.

5. **Fire-Fighting Measures**

Do not use water, water jet or carbon dioxide.

Use dry inert material and prevent dust cloud formation.

Normal fire fighting equipment depending on the circumstances of the fire.

6. **Accidental Release Measures**

Collect using spade or scoop and collect excessive dust with vacuum cleaner and place in separate leakproof container.

7. **Handling and Storage**

When handling, avoid generation of dust in excess of recommended occupational limits. Keep all floors, work areas, stairs and hand rails dry. Fine particles can ignite under certain conditions and, therefore, avoid dust clouds.

Store in ambient temperature away from open flame and in dry conditions in a well-ventilated area. **Avoid humid or damp** conditions in order to eliminate oxidation.

8. **Exposure Controls and Personal Protection**

Avoid dusty working conditions and use adequate dust extraction. Avoid breathing dust and skin contact. Wash hands after handling and the use of barrier creams is suggested.

If insufficient ventilation then suitable respiratory equipment with fine particle filter should be worn (P2). Wear gloves and goggles if possible eye contact.

Occupational Exposure Standards

Cu	Dust	8 hrs	1mg/m ₃
		15 mins	2mg/m ₃
	Fume	8 hrs	0.2mg/m ₃
Sn	Dust	8 hrs	2mg/m ₃
		15 mins	4mg/m ₃

9. Physical and Chemical Properties

Colour	-	Sand coloured
Odour	-	Odourless
Ph	-	N/A
Flash Point	-	N/A
Melting Point	-	Cu 1083 degrees C Sn 232 degrees C
Boiling Point	-	Cu 2324 degrees C Sn 2270 degrees C
Explosion Limits	-	N/A
Density	-	Specific gravity 8.9
Apparent Density	-	3.5 - 6.0 g/cm ₃
Viscosity	-	N/A
Solubility	-	N/A

10. Stability and Reactivity Data

Stable at normal handling and storage conditions.

Violent reactions with Nitric Acid, acetylene, oxidising agents, halogens, Bromides, Iodides, Chlorates, Sulphuric Acid, Nitric Acid, Potassium Dioxide.

Hydrogen and noxious Copper compounds may result from contact with any reactive materials.

11. Toxicological Information

Inhalation of Bronze Powder or fume may cause similar symptoms to metal fume fever.

12. Ecological Information

Classified as an environmentally hazardous substance (UN 3077). Therefore avoid contamination of land and waterways.

13. Disposal Considerations

Dispose of in safe manner according to local, state or federal regulations.

14. Transport Information

Non-classified as hazardous. Tariff HS 740 610 00 0.

15. Regulatory Information

The Control of Substances Hazardous to Health Regulations 1996.

Occupational Exposure Standards EH40

The Chemicals (Hazard, Information and Packaging for Supply) Regs 1996

16. Other Information

In accordance with article 10 of Directive 88/379/EEC and listed in Article 3 of Directive 91/155/EEC.

Chemicals (Hazard information and packaging for supply) Regulations 2002