

Safety Data Sheet

Section 1: Identification

- **Product Name:** Low-Fuming Bronze
- **Manufacturer:** Inweld Corporation
- **Address:** 3962 Portland St, Coplay, PA 18037, UNITED STATES
- **Inweld Phone Number:** (800) 346-5368
- **Emergency Phone Number:** (800) 424-9300
- **Recommended Use:** Alloy used in welding, brazing, and casting applications.
- **Restrictions on Use:** Only for industrial and commercial use. Not for household applications.

Section 2: Hazard(s) Identification

GHS Classification:

- **Health Hazards:**
 - Carcinogenicity (Category 1B)
 - Respiratory Sensitization (Category 1)
 - Skin Sensitization (Category 1)
 - Specific Target Organ Toxicity (Single Exposure) (Category 1)
- **Environmental Hazards:**
 - Hazardous to aquatic environment (Chronic 1)

Signal Word: Danger

Hazard Pictograms:



Hazard Statements:

- May cause cancer.
- May cause respiratory irritation.
- May cause an allergic skin reaction.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long-lasting effects.

Precautionary Statements:

- **Prevention:**
 - Do not breathe dust/fume/gas/mist/vapors/spray.
 - Wear protective gloves, protective clothing, and eye protection/face protection.
 - Wash thoroughly after handling.
 - Avoid release to the environment.
- **Response:**
 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
 - If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- **Storage:** Store in a well-ventilated place. Keep container tightly closed.
- **Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3: Composition/Information on Ingredients

Chemical Name	CAS Number	Weight %
Copper (Cu)	7440-50-8	80-95%

Chemical Name	CAS Number	Weight %
Tin (Sn)	7440-31-5	5-15%
Zinc (Zn)	7440-66-6	0-5%
Other alloying elements -		0-5%

Section 4: First-Aid Measures

General Advice: Remove victim to fresh air. If symptoms persist, seek medical attention.

Inhalation:

- Move person to fresh air immediately.
- If breathing is difficult, give oxygen.
- If not breathing, give artificial respiration and seek medical attention.

Skin Contact:

- Wash skin with soap and water.
- Remove contaminated clothing and wash before reuse.
- If irritation persists, seek medical attention.

Eye Contact:

- Rinse cautiously with water for at least 15 minutes.
- Remove contact lenses if present and easy to do.
- Seek medical attention if irritation persists.

Ingestion:

- Do not induce vomiting.
- Rinse mouth and drink plenty of water.
- Seek medical attention immediately.

Section 5: Fire-Fighting Measures

Flammability: Non-flammable, but may emit toxic fumes when heated to decomposition.

Firefighting Instructions:

- Use appropriate fire extinguishers for surrounding materials.
- Wear self-contained breathing apparatus and protective clothing.
- Do not use water directly on molten metal.

Extinguishing Media:

- Dry chemical powder, sand, or metal fire extinguisher.

Special Hazards:

- May release toxic fumes (e.g., copper oxide) when heated.

Section 6: Accidental Release Measures

Personal Precautions:

- Wear appropriate protective equipment (PPE), including gloves, eye protection, and respiratory protection if required.
- Avoid inhalation of fumes and dust.

Environmental Precautions:

- Prevent further leakage or spillage if safe to do so.
- Avoid discharge into drains, watercourses, or onto the ground.

Cleanup Methods:

- Sweep up and place in a suitable container for disposal.
- Use appropriate ventilation during cleanup to prevent inhalation of fumes or dust.

Section 7: Handling and Storage

Handling:

- Avoid generating dust or fumes.

- Use local exhaust ventilation if required.
- Ensure adequate ventilation in work areas to prevent inhalation of dust or fumes.

Storage:

- Store in a cool, dry, well-ventilated area.
- Keep containers tightly closed when not in use.
- Keep away from incompatible materials such as strong acids or bases.

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

- **Copper:** OSHA PEL: 0.1 mg/m³ (fume)
- **Tin:** ACGIH TLV: 2 mg/m³ (fume)
- **Zinc:** ACGIH TLV: 5 mg/m³ (dust)

Personal Protective Equipment (PPE):

- **Respiratory Protection:** If exposure limits are exceeded or if ventilation is inadequate, use a NIOSH-approved respirator.
- **Hand Protection:** Wear protective gloves.
- **Eye Protection:** Wear safety goggles or face shield.
- **Skin Protection:** Wear appropriate protective clothing.

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Metallic, shiny
Odor	None
Melting Point	950-1050°C
Boiling Point	Not applicable

Property	Value
Density	~8.9 g/cm ³
Solubility in Water	Insoluble
pH	Not applicable
Flash Point	Not applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions.

Incompatibilities: Strong acids, strong bases, and strong oxidizing agents.

Hazardous Decomposition Products:

- Copper oxide (CuO)
- Tin oxide (SnO₂)

Section 11: Toxicological Information

- **Acute Toxicity:** Copper and its alloys may cause irritation to the respiratory system if inhaled. Prolonged or repeated exposure may result in systemic toxicity.
- **Chronic Toxicity:** Long-term exposure to copper fume may cause chronic respiratory conditions. Tin and zinc may also have chronic health effects if exposure is sustained over time.
- **Carcinogenicity:** Contains materials that are suspected or confirmed carcinogens, including copper fumes.

Section 12: Ecological Information

- **Ecotoxicity:** Low-fuming bronze is very toxic to aquatic life with long-lasting effects.
- **Persistence and Degradability:** The material is not biodegradable.
- **Bioaccumulative Potential:** May bioaccumulate in aquatic organisms.

Section 13: Disposal Considerations

Waste Disposal Methods:

- Dispose of in accordance with local, regional, and national regulations.
- Do not release to the environment.
- Recycle where possible.

Section 14: Transport Information

- **UN Number:** Not applicable.
- **UN Proper Shipping Name:** Not regulated.
- **Transport Hazard Class:** None.
- **Packing Group:** Not applicable.

Section 15: Regulatory Information

- **OSHA:** Complies with OSHA's Hazard Communication Standard.
- **TSCA:** All ingredients listed on the Toxic Substances Control Act Inventory.
- **SARA Title III:** No specific hazardous ingredients subject to reporting under SARA.

Section 16: Other Information

Revision Date: June 2025

Notice: This SDS is based on current knowledge and available data. It is intended to provide a general guide for the safe handling of this material. Always follow local, state, and national regulations.