



SECTION 1 - IDENTIFICATION

Manufacturer: Black Swan Mfg. Co. 4540 W. Thomas St. Chicago, IL 60651-3318 Tel.: 800-252-5796 Fax: 773-227-3705 Web Site : www.blackswanmfg.com E-mail : info@blackswanmfg.com	For any Transportation or Medical Chemical Emergencies call: INFOTRAC (800) 535-5053 OR (352) 323-3500 24 hours per day - 7 days a week
Product Name: Lead Free Solder	Recommended Use: High quality solder for plumbing and joining copper pipes.

SECTION 2 – HAZARD(S) IDENTIFICATION

Labels  Environmental Hazard Signal Word Warning HMIS HEALTH1 FLAMMABILITY0 REACTIVITY0	NFPA HEALTH HAZARD 4 – Deadly 3 – Extreme Danger 2 – Hazardous 1 – Slight Hazardous 0 – Normal Material SPECIFIC HAZARD Oxidizer OX Acid ACID Alkali ALK Corrosive COR Use NO WATER Radioactive  FIRE HAZARD Flash Points 4 – Below 73°F 3 – Below 100°F 2 – Above 100°F, Not exceeding 200°F 1 – Above 200°F 0 – Will not burn REACTIVITY 4 – May detonate 3 – Shock and heat may detonate 2 – Violent chemical change 1 – Unstable if heated 0 – Stable	GHS Classification Health Acute Toxicity: Not Established Skin Irritation: Not Established Eye Irritation: Not Established Skin Sensitization: NO Environmental Acute Aquatic Toxicity: Not Established Chronic Aquatic Toxicity: Cat. 1 Physical None
Hazardous Statements H410: Very toxic to aquatic life	Precautionary Statements P102: Keep out of reach of children P273: Avoid release into the environment	

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemicals</u>	<u>CAS#</u>	<u>EINECS#</u>	<u>REACH</u> <u>Pre-registration Number</u>	<u>Approx %</u>
TIN	7440-31-5	N/A	N/A	60-100%
COPPER	7440-50-8	N/A	N/A	1-5%
SILVER	7440-22-4	N/A	N/A	0.1-5%

*Unlisted ingredients are not classified as hazardous according to OSHA 1910.1200.

SECTION 4 – FIRST-AID MEASURES

Inhalation: Move into fresh air. If irritation persists, get medical attention.
Skin: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water.
Eyes: Flush with water for 15 minutes. If irritation persists, get medical attention.
Ingestion: Rinse mouth. If irritation persists, get medical attention.

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazard: During fire, gases hazardous to health may be formed.
Combustion Products: None known.
Extinguishing Media: Dry Chemical Powder, Dry Sand, Water Fog, Carbon Dioxide.
Unsuitable Extinguishing Media: Water, Moist Sand.
Protective Equipment: Self-contained breathing apparatus {(SCBA), MSHA/NIOSH}. Full protective gear.
Special Fire Fighting Procedures: Evacuate enclosed areas, stay upwind. Closed or confined quarters require self-contained breathing apparatus, positive pressure hose masks or airline masks.

GHS SAFETY DATA SHEET

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Prevent contact with skin or eyes. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high.

Protective Equipment: Respirators and protective clothing.

Emergency Procedures: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental Precautions: Avoid runoff into storm sewers, ditches and waterways.

Methods for Cleaning Up: If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust. Scrap metal can be reclaimed for use.

SECTION 7 – HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing. Avoid prolonged breathing of vapor and mist. Use with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep products away from heat, sparks, flames and all other sources of ignition.

Storage

Store in a cool, dry, well-ventilated area away from incompatible materials. Store in a closed container. Keep away from heat, sparks, open flame and other sources of ignition. **Incompatible Materials:** Acids, bases and oxidizers.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Hazardous Chemicals</u>	<u>Exposure Limits</u>		
	<u>ACGIH-TLV</u>	<u>ACGIH-STEL</u>	<u>OSHA-PEL</u>
Tin	2mg/m ³	4mg/m ³	2mg/m ³
Copper	1mg/m ³	2mg/m ³	1mg/m ³
Silver	0.1mg/m ³	N/A	0.01mg/m ³

Engineering Controls: A source of running water to flush or wash the eyes and skin in case of contact.

Ventilation: Use general and local exhaust ventilation to keep airborne concentrations of dust and fume below the TLV.

Personal Protective Equipment – Respiratory: MSHA/NIOSH approved respirators.

Personal Protective Equipment – Skin: Showering should be required before changing to street clothes. Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis.

Personal Protective Equipment – Eyes: Approved safety glasses or goggles should be worn when working with dusty material.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Silver-gray metal	Flash Point:	Not Established	Vapor Pressure:	1mm Hg @1,492°C
Odor:	Odorless	Specific Gravity:	7.28 – 8.42	Flammability:	Not Established
pH:	Not Established	Solubility (H₂O):	Insoluble	Flammability Limits:	LEL – Not Established
Melting Point:	415-455 °F (212.78-235°C)	Evaporation Rate:	Not Established		UEL – Not Established
Freezing Point:	Not Established	Vapor Density:	Not Established		
Boiling Point:	2,507°C	VOC:	0 g/l		

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: Will not occur.

Conditions to avoid: Molten material may react violently with water.

Incompatible materials: Acids, bases and oxidizers.

Hazardous decomposition products: Dust presents moderate fire and explosion hazard.

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SECTION 11 – TOXICOLOGICAL INFORMATION

<u>Hazardous Chemicals</u>	<u>Toxicity</u>	
	<u>LD₅₀</u>	<u>LC₅₀</u>
Tin	N/A	N/A
Copper	N/A	N/A
Silver	N/A	N/A

Likely Routes of Exposure: Inhalation.

Symptoms and Effect - Inhalation: Fumes may cause metal fever with flu like symptoms.

Skin Contact: Irritation of the skin and mucous membranes and may result in a benign pneumoconiosis. May cause skin and hair discoloration. **Eye Contact:** None. **Ingestion:** None.

Long-Term Effect: None known.

Pre-Existing Conditions: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: None known.

Persistence & Degradability: Biodegradable.

Bioaccumulative Potential: None known.

Mobility in soil: In normal use, emission of Volatile Organic Compounds (VOC's) to the air takes place, typically at a rate of 0 g/l.

SECTION 13 – DISPOSAL CONSIDERATION

Dispose of product or container in accordance with federal, state or local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

D.O.T. (U.S.): Not Regulated

SECTION 15 – REGULATORY INFORMATION

Precautionary Label Information: None.

Risk Phrases: None.

Safety Phrases: S2-Keep out of reach of children.

SECTION 16 – OTHER INFORMATION

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Mfg. Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on the sheets. **DATE: 01/01/2026**