



SECTION 1 - IDENTIFICATION

Table with 2 columns: Manufacturer information (Black Swan Mfg. Co., Chicago, IL) and For any Transportation or Medical Chemical Emergencies call: INFOTRAC (800) 535-5053 OR (352) 323-3500. Product Name: Lead Free Solder. Recommended Use: High quality solder for plumbing and joining copper pipes.

SECTION 2 – HAZARD(S) IDENTIFICATION

Table with 2 main columns: Hazardous Statements and Precautionary Statements. Includes NFPA diamond (1, 0, 0, 0), GHS Classification (Health, Environmental, Physical), and Signal Word (Warning).

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Table with 5 columns: Chemicals (TIN, COPPER, SILVER), CAS#, EINECS#, REACH Pre-registration Number, and Approx %. Includes footnote: *Unlisted ingredients are not classified as hazardous according to OSHA 1910.1200.

SECTION 4 – FIRST-AID MEASURES

Table with 1 column: First-aid instructions for Inhalation, Skin, Eyes, and Ingestion.

SECTION 5 – FIRE-FIGHTING MEASURES

Table with 1 column: Fire-fighting measures including Fire Hazard, Combustion Products, Extinguishing Media, Unsuitable Extinguishing Media, Protective Equipment, and Special Fire Fighting Procedures.

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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>LD₅₀</u>	<u>Toxicity</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: 01/01/2021