



## 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](http://www.blackswanmfg.com)  
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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:** 95/5 Solder-N-Flux**Recommended Use:** Used for joining copper tubing and fittings.

## SECTION 2 – HAZARD(S) IDENTIFICATION

**Labels**

Health Hazard



Irritant

**Signal Word**

Warning

**HMIS**

HEALTH

2

FLAMMABILITY

0

REACTIVITY

1

**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 W  
Radioactive R

**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: Cat. 2A

Skin Sensitization: Yes

**Environmental**

Acute Aquatic Toxicity: Not Established

Chronic Aquatic Toxicity: Not Established

**Physical**

None

**Hazardous Statements**

H302: Harmful if swallowed

H315: Causes skin irritation

H319: Causes serious eye irritation

**Precautionary Statements**

P102: Keep out of reach of children

P262: Do not get in eyes, on skin, or on clothing

P264: Wash thoroughly after handling

P281: Use personal protective equipment as required

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

**Chemicals****CAS#****EINECS#****REACH  
Pre-registration Number****Approx %**

ANTIMONY

7440-36-0

231-146-5

N/A

1-5%

TIN

7440-31-5

231-141-8

N/A

60-85%

ZINC CHLORIDE

7646-85-7

231-592-0

N/A

3-5%

AMMONIUM CHLORIDE

12125-02-9

235-186-4

N/A

3-5%

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

## SECTION 4 – FIRST-AID MEASURES

**Inhalation:** Move into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and call physician.**Skin:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If rash or burn appear consult a physician.**Eyes:** Flush with water for 15 minutes. If irritation persists, get medical attention.**Ingestion:** Give large quantities of water or milk. DO NOT INDUCE VOMITING. Contact physician immediately.

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### SECTION 5 – FIRE-FIGHTING MEASURES

**Fire Hazard:** With excessive heating, material could emit toxic fumes.  
**Combustion Products:** None known.  
**Extinguishing Media:** Carbon Dioxide, Dry Chemical, Fog (Water).  
**Unsuitable Extinguishing Media:** None known.  
**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. Use water spray to cool containers, to flush spills from sources of ignition and to disperse vapors.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Prevent contact with skin or eyes.  
**Protective Equipment:** Wear suitable respiratory protective equipment.  
**Emergency Procedures:** Remove all sources of ignition and ventilate area. For leaks, stop leak if it can be done safely. 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:** Flush with large quantities of water and pickup with absorbing materials.

### SECTION 7 – HANDLING AND STORAGE

#### Handling

Avoid contact with eyes and skin. 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. Keep containers closed when not in use. If handling in large quantities, wear rubber gloves and face shield.

#### Storage

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep container closed when not in use. Keep away from heat, sparks, open flame and other sources of ignition. **Incompatible Materials:** Zinc Chloride is incompatible with Cyanides & Sulfide Salts.

### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Limits

| <u>Hazardous Chemicals</u> | <u>ACGIH-TLV</u>        | <u>ACGIH-STEL</u> | <u>OSHA-PEL</u>        |
|----------------------------|-------------------------|-------------------|------------------------|
| ANTIMONY                   | 0.5 mg/m <sup>3</sup>   | N/A               | 0.5 mg/ m <sup>3</sup> |
| TIN                        | 2.0 mg/ m <sup>3</sup>  | N/A               | 2.0 mg/ m <sup>3</sup> |
| ZINC CHLORIDE              | 1.0 mg/ m <sup>3</sup>  | N/A               | 1.0 mg/ m <sup>3</sup> |
| AMMONIUM CHLORIDE          | 10.0 mg/ m <sup>3</sup> | N/A               | N/A                    |

**Engineering Controls:** A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed.  
**Ventilation:** Local ventilation is adequate.  
**Personal Protective Equipment – Respiratory:** Not required for normal use.  
**Personal Protective Equipment – Skin:** Rubber gloves  
**Personal Protective Equipment – Eyes:** Safety goggles.

### SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

|                        |                            |                          |                   |                             |                       |
|------------------------|----------------------------|--------------------------|-------------------|-----------------------------|-----------------------|
| <b>Appearance:</b>     | Gray, Silvery paste        | <b>Flash Point:</b>      | Not Established   | <b>Vapor Pressure:</b>      | Not Established       |
| <b>Odor:</b>           | None                       | <b>Specific Gravity:</b> | 4.03              | <b>Flammability:</b>        | Not Established       |
| <b>pH:</b>             | Not Established            | <b>Solubility (H2O):</b> | Slightly Miscible | <b>Flammability Limits:</b> | LEL – Not Established |
| <b>Melting Point:</b>  | 464°F                      | <b>Evaporation Rate:</b> | Not Established   |                             | UEL – Not Established |
| <b>Freezing Point:</b> | Not Established            | <b>Vapor Density:</b>    | Not Established   |                             |                       |
| <b>Boiling Point:</b>  | Tin 2260°C/Antimony 1635°C | <b>VOC:</b>              | 0 g/l             |                             |                       |

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### SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable.

**Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Avoid contact with concentrated Alkalies. High temperatures.

**Incompatible materials:** Zinc Chloride is incompatible with Cyanides & Sulfide Salts.

**Hazardous decomposition products:** None known.

### SECTION 11 – TOXICOLOGICAL INFORMATION

| <u>Hazardous Chemicals</u> | <u>LD<sub>50</sub></u> | <u>LC<sub>50</sub></u> |
|----------------------------|------------------------|------------------------|
| ANTIMONY                   | N/A                    | N/A                    |
| TIN                        | N/A                    | N/A                    |
| ZINC CHLORIDE              | N/A                    | N/A                    |
| AMMONIUM CHLORIDE          | N/A                    | N/A                    |

**Likely Routes of Exposure:** Skin Contact and Ingestion.

**Symptoms and Effect - Inhalation:** Dust from dried down product can cause injury to respiratory tract. Severe exposure can cause lung damage. **Skin Contact:** Prolonged contact causes burns, skin irritation and discomfort with rash. **Eye Contact:** Will cause eye irritation with discomfort, tearing or blurring of vision. **Ingestion:** Severe damage to internal organs (Esophagus & Phylorus) will occur if swallowed in large quantities. Antimony is strongly irritating to mucous membranes and to tissue.

**Long-Term Effect:** Advanced stages of antimony poisoning may cause fatty degeneration of the liver and other organs. The gastrointestinal tract shows marked congestion and edema.

**Pre-Existing Conditions:** None known.

### SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** None known.

**Persistence & Degradability:** None known.

**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:** Irritant and Health Hazard.

**Risk Phrases:** R22-Harmful if swallowed. R41-Risk of serious damage to eyes.

**Safety Phrases:** S2-Keep out of reach of children. S9-Keep container in a well-ventilated place. S16-Keep away from sources of ignition-No smoking. S25-Avoid contact with eyes. S26-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### 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: 01/01/2025