

# MATERIAL SAFETY DATA SHEET

## PRODUCT INFORMATION

Date of Issue: 1<sup>st</sup> January 2019

### IDENTIFICATION

Product Names:

LEAD-FREE SOLDERS:

SAC305: 96.5% tin-3.0% silver-0.5% copper

SAC300: 97% tin-3.0% silver

This data sheet covers the following:

Solder bar

Solder sticks

Solder granules

CAS Number:

Tin: 7440-31-5

Silver: 7440-22-4

Copper: 7440-50-8

Dangerous Goods Class and Subsidiary Risk: None

Hazchem Code: None allocated

Poisons Schedule Number: None allocated

Use: Wave soldering, circuit board manufacturing.

### Physical Description/Properties

Appearance: Silver white alloys, colourless

Boiling Point:

Melting Point 217 deg C

Vapour Pressure:

Specific gravity: 7.3

Composition: 96.5% Sn 3.0% Ag 0.5% copper (SAC305)

97% Sn 3.0%Ag (SAC300)

Flashpoint: Not applicable

Explosive Limits: Not applicable

Solubility in water: Insoluble

### **Other Properties**

Reactivity and Stability: This product is stable.

Incompatibility with other substances: Acids, alkalies, oxidising agents.

Hazardous decomposition Products:

## **Health Hazard Information**

### **Health Effects**

#### **Acute**

Swallowed: May be harmful in large amounts

Eye: It is not expected that these alloys will cause any adverse effects apart from purely physical injuries.

Skin: Cannot be absorbed through skin. Mechanical irritant on contact..

Inhalation: May cause irritation to the respiratory passages.

#### **Chronic**

Carcinogenicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

Reproductive effects: No information available

### **First Aid**

Swallowing: If the casualty is unconscious but breathing, place on one side in the recovery position. If breathing has stopped apply artificial resuscitation by the mouth to mouth or mouth to nose method. If the casualty is conscious, then encourage them to wash their mouths out with water several times, but do not induce vomiting nor give anything to drink if the casualty finds it difficult to swallow. Obtain urgent medical attention.

- Eye: Check for and remove any contact lenses. Flush *immediately* with plenty of water for at least 15 minutes, ensure that the eyeball and the inside of the eyelids are properly bathed by gently prising open the eyelids. Obtain urgent medical attention.
- Skin: Wash the affected parts of the body with plenty of cold or lukewarm running water. Continue washing for at least 20 minutes. Obtain medical attention if blistering occurs or redness persists.
- Inhalation: Rescuers should ensure they are properly protected before entering the area to remove the casualty. If the casualty is unconscious but breathing, place on one side in the recovery position. If breathing has stopped, apply artificial resuscitation by the mouth to mouth or mouth to nose method. Obtain medical attention.

**Advice to Doctors:** No information available

## **PRECAUTIONS FOR USE**

### **Engineering Controls:**

Local exhaust ventilation recommended.

### **Personal Protection**

Do not eat, drink or smoke in work areas. Wash hands thoroughly after use.

Eye Protection: Eye or face protection should be used whenever there is a risk of splashing. It is recommended that eye protection, safety glasses or goggles, to Australian Standard AS/NZS 1337, *Eye Protection for Industrial Applications*, should be worn.

Clothing: Suitable workwear should be worn to protect personal clothing, eg. Cotton overalls buttoned at neck and wrist. Leather gloves should be used when working with hot metal.

### **Flammability**

This product will not burn when exposed to fire.

## **Safe Handling Information**

### **Storage**

These products should be stored in a cool dry area.

**Transport**

These products are not regulated for transport.

**Spills**

Molten metal should be allowed to solidify and cool. Do not introduce water under molten metal. If necessary dam the spill area to prevent entry of molten metal into drains. Return spilled metal to manufacturer for recycling or hold for re-use.

**Disposal**

Product Disposal: Waste material should be disposed of in accordance with relevant government regulations for special waste. The recommended method of disposal is re-use or recycling.

**Fire/Explosion Hazard**

Extinguishers: Use foam, water fog, dry powder or carbon dioxide. Do NOT use water on molten metal.

Combustion Products: High temperatures may produce heavy metal dust, fumes and/or vapours.

**First Aid Procedures**

The following procedures should be followed in the event of an accident involving molten metal. If a person is splashed with molten metal, the affected area should be cooled immediately with water. Do not use oil or other substances. If a person is burned, the affected area should be cooled immediately with water. Do not use ointments or other substances. If a person is inhaled, the person should be moved to a well-ventilated area. If a person is inhaled, the person should be moved to a well-ventilated area. If a person is inhaled, the person should be moved to a well-ventilated area.

**First Aid**

For more information, contact the manufacturer. For more information, contact the manufacturer. For more information, contact the manufacturer.