

**SAFETY DATA SHEET**  
**Asahi Cored Lead Free Solder Wire**  
**Sn97/Ag3 (Core Flux : CLF5013)**  
*MSDS #: EHC 2 – 7/50*  
*Date of Preparation: October 2022*

**SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

**1.1 Product Details:**

Product Name : Asahi Cored Flux Lead-Free Solder Wire  
Trade Name : Asahi Cored Flux Lead-Free Solder Wire Sn97/Ag3 (Core Flux : CLF5013)  
Use : Cored flux solder wire may be used for manual soldering or in repair and rework for electrical or electronic assemblies.

**1.2 Company's Identification:**

Manufacturer's Name and Address : Singapore Asahi Chemical & Solder Industries Pte Ltd  
47 Pandan Road  
Singapore 609288  
Telephone : (65) 6262-1616  
Facsimile : (65) 6261-6311

**1.3 Contact Point:**

Designation : Chemist  
Emergency Telephone Number: (65) 6262-1616

**SECTION 2: HAZARD IDENTIFICATION**

**GHS label elements**



**GHS Signal Word** : **Danger**

**GHS Hazard Statement:** H302 Harmful if swallowed  
H332 Harmful if inhaled  
H317 May cause an allergic skin reaction  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

**GHS Precautionary Statement:**

**Prevention**

- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust, fume, gas, mist and vapours.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves.
- P285 In case of inadequate ventilation wear respiratory protection.

**Response**

- P301, P312, P330 IF SWALLOWED: Rinse mouth, call a POISON CENTER or doctor/physician if you feel unwell.
- P302, P352 IF ON SKIN: Wash with plenty of soap and water.
- P304, P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P333, P313 If skin irritation or rash occurs: Get medical advice or attention.
- P342, P311 If experience respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P363 Wash contaminated clothing before reuse.

**Storage**

- P410 Protect from sunlight.

**Disposal**

- P501 Dispose of contents or container to appropriate waste site in accordance with local and national regulations.

**SECTION 3: COMPOSITION/INFORMATION ON MATERIAL**

Chemical Name	CAS No.	%	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )	Other Limits Recommended
Tin (Sn)	7440-31-5	97.0	2.0	2.0	
Silver	7440-22-4	3.0	Dust/Fumes 0.1 Soluble Compounds 0.01	0.1 0.01	
<b>Flux % in Core Wire</b>		3			
<b>Flux Composition:</b>					
Resin	Proprietary	85-95			
Activators	Proprietary	5-10			
Solvent	Proprietary	Rem.			
<b>Total</b>		<b>100</b>			

**SECTION 4: FIRST AID MEASURES**

Ingestion : Seek medical attention.  
Eye Contact : Flush eyes with plenty of water immediately for at 15 minutes. Seek medical attention.  
Skin Contact : Wash thoroughly with soap and warm water.  
Inhalation : Evacuate to a safe area with fresh air.

**SECTION 5: FIRE-FIGHTING MEASURES**

Extinguishing Media : NA  
Fire Fighting Instructions : NA  
Special Hazards : NA  
Unusual Fire and Explosion Hazards : Flux may burn if soldering is done with a flame.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Leak/Spill : Place into properly labeled waste container and may be sent for recovery following appropriate recovery routes or methods.

**SECTION 7: HANDLING AND STORAGE**

Handling : Wash hand thoroughly with soap and water prior to eating, drinking or smoking. Do not smoke while soldering. Avoid inhalation of vapors and contact with skin and eyes. Observe good industrial practices.  
Storage : Store in a cool environment away from oxidizing agents.

## **SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION**

Engineering Measures : Maintain general or local exhaust ventilation to meet exposure limit requirements.  
Personal Protection : Operator should be protected from soldering fumes  
PROTECTIVE GLOVES : Impervious rubber  
EYE PROTECTION : Safety glasses

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Metallic coil with flux in the center of the coil.  
Odor : No odor.  
Solubility in water: : Soluble (flux)  
Boiling Point(°C) : NA (solder); 124°C (flux)  
Eutectic point (°C) : 221°C  
Vapor Pressure(mm of Hg at 20°C) : NA  
Vapour Density (air=1) : NA  
Percentage Volatiles (by Volume) : NA  
Volatile Organic Compound (VOC) : NA  
Evaporation Rate (butyl acetate=1) : NA  
Specific Gravity (water=1 at 25°C) : 7.4 (solder)  
Flash Point (°C) : NE  
Auto-ignition Temperature(°C) : NE

## **SECTION 10: PHYSICAL HAZARDS (STABILITY AND REACTIVITY)**

Condition to avoid : Unknown  
Incompatibles : Oxidizing materials  
Decomposition products : Unknown  
Hazardous polymerization : Will not occur

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Toxicity data : Organic tin compounds are toxic and will cause damage to health if ingested. Soluble silver compounds may affect the liver.  
Carcinogenicity : Not listed  
Effect on reproductive organ: NE  
Effects of overexposure (Chronic Effect): Breathing of vapors may produce respiratory irritation.  
Target Organs : Respiratory system (from fumes)

Medical Conditions Generally Aggravated by Exposure: Soldering fumes may irritate the eyes.

## **SECTION 12: ECOLOGICAL INFORMATION**

Mobility & Bioaccumulation : Non volatile material  
Biodegradability : Non biodegradable  
Aquatic Toxicity : Organic and inorganic tin compounds are toxic to the aquatic



RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND  
COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.

\*optional

NE = Not Established

NA = Not Applicable

PEL = Permissible Exposure Level