



**SAFETY DATA SHEET**  
**Asahi Lead Free Solder Paste**  
**No-Clean M097 Series**  
**SAC305**

*SDS #: EAP2-32/19*  
*Date of Preparation: May 2023*

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

**1.1 Product Details:**

Product Name : Asahi No Clean Lead Free Solder Paste  
Trade Name : SAC305 5 – 5M097  
Use : Solder paste may be used in automated soldering 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 Classification**

Acute Toxicity	- Oral	: Classification 4
	- Dermal	: Classification 5
	- Inhalation	: Classification 5
Sensitization	- Skin	: Classification 1
	- Respiratory	: Classification 1
Skin corrosion/irritation		: Classification 3
Serious eye damage/irritation		: Classification 2B

## GHS label elements



**GHS Signal Word** : Danger

**GHS Hazard Statement** : H302 Harmful if swallowed  
H313 May be harmful in contact with skin  
H333 May be harmful if inhaled  
H316 Causes mild skin irritation  
H320 Causes eye irritation  
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.  
P305, P351, P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332, P337, P313 If eye or skin irritation occurs: Get medical advice/attention.  
P333, P313 If skin irritation or rash occurs: Get medical advice/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.

**Other Hazards**

Inhalation of fumes during soldering operation may cause stimulation of throat and nose feeling sick.

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

Chemical Name	CAS No.	%	OSHA PEL(mg/m <sup>3</sup> )	ACGIH TLY (mg/m <sup>3</sup> )	Other Limits Recommended
Tin (Sn)	7440-31-5	REM	2.0	2.0	
Silver (Ag)	7440-22-4	2.7	0.01(powder/dust)	0.01(powder/dust)	
Copper (Cu)	7440-50-8	0.4	Fumes 0.2 Dust/Mist 1	0.2 1	
Rosin	8050-09-07	5.0-6.0	NE	NE	
Organic acid	Proprietary	0.5-2.0	NE	NE	
Solvent	Proprietary	2.0-4.0	NE	NE	
<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 : Dry chemical, CO<sub>2</sub> etc  
 Fire Fighting Instructions : Toxic Fumes may be emitted if flux is on fire  
 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

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

Appearance : Grayish Cream  
Odor : Mild Solvent Odor  
Solubility in water: : Negligible by Weight  
Boiling Point(°C) : Flux – 124°C; Alloy - NE  
Melting Point(°C) : 217°C (alloy)  
Vapor Pressure(mm of Hg at 20°C) : NA  
Vapour Density (air=1) : NA  
Percentage Volatiles (by Volume) : NA  
Volatile Organic Compound (VOC) : 4.2% by weight  
Evaporation Rate (butyl acetate=1) : NA  
Flash Point (°C) : 238°C  
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 : The acute toxicity of tin is low.  
Carcinogenicity : Not listed.  
Reproductive Effect : None.  
Germ Cell Mutagenicity : Not mutagenic.  
Inhalation Toxicity : Inhalation of soldering fumes may produce respiratory irritation.  
Skin corrosion/irritation : Paste will probably cause mild skin irritation.  
Serious Eye Irritation : If paste enters the eye, it will cause eye irritation and even corneal damage.  
Aspiration Hazard : No information.  
Medical Conditions : Soldering fumes may irritate the eyes.  
Generally Aggravated

by Exposure

## SECTION 12: ECOLOGICAL INFORMATION

Mobility & Bioaccumulation : Non volatile material  
Biodegradability : Non biodegradable  
Aquatic Toxicity : NE

## SECTION 13: DISPOSAL INFORMATION

Dispose according to federal, state and local regulations. This product is suitable for recovery following appropriate recovery routes or methods. If in doubt, contact Singapore Asahi.

## SECTION 14: TRANSPORT INFORMATION

### UN Number

ADR/RID:-                                      IMDG:-                                      IATA-DGR:-

### UN proper shipping name

ADR/RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA-DGR : Not dangerous goods

### Transport hazard class

ADR/RID:-                                      IMDG:-                                      IATA-DGR:-

### Packaging group

ADR/RID:-                                      IMDG:-                                      IATA-DGR:-

### Special shipping instruction

No data available

## SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture  
EU Regulation (EC) No. 1907/2006 (REACH)

### Annex XIV - List of substances subject to authorization

None of the components are listed.

### Substances of very high concern

None of the components are listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## **SECTION 16: OTHER INFORMATION**

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THE COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED.

HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S 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