

Product Instruction

Lead-free solder wire Sn99.3Cu0.7

- 1 · (Specification For Approval)**
- 2 · (Technical Data Sheet)**
- 3 · (Material Safety Date Sheet)**

Specification For Approval

Name	Lead-free solder wire
Part Number	Sn99.3Cu0.7

1、 Apply range

This acknowledgment is only fit for our company.

2、 Usage: For welding of electronic products

3、 Specification and chemistry component

Specification	Sn99.3-Cu0.7 (0.5mm)								
Appearance	Lucent,no dirt on surface								
Packing	500g/roll;8.5 kg/box								
Chemistry component									
Sn	Cu	Pb	Sb	Bi	Zn	Fe	Al	As	Cd
99.3	0.7± 0.2	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.03	<0.02

3、 Alloy component and physical characteristic

Alloy component	Melting point	Proposition g/cm ³	Rigidity HB	Conduct heat M.S.K	Extend Mpa	Extend rate %	Conductivity %
Sn99.3Cu0.7	227	7.4	9	64	32	48	16.0

Technical Data Sheet

1、SnCu and SnPb capability balance

Component (wt%)		Sn/Cu0.7			Sn63/Pb37		
Melting (°C)		227			183		
Density (25 °C)		7.4			8.4		
Heat cubage (J/kg · k)		220			176		
Conduct heat (J/m · s · K)		64			50		
Extend intension (MPa)		32			44		
Extend Rate (%)		48			25		
Resistance Rate ($\mu \Omega m$)		0.13			0.17		
Extend Rate (%)	230 °C				91		
	240 °C	77			92		
	250 °C	77			93		
	260 °C	77			93		
	280 °C	78					
Wetness		Ta	Tb	Fmax	Ta	Tb	Fmax.
Balance	240°C	1.00	4.53	0.159	0.12	0.80	0.195

Test	250°C	0.86	2.79	0.181	0.11	0.64	0.200
	260°C	0.47	1.46	0.186	0.10	0.41	0.206
	270°C	0.31	0.80	0.192	0.07	0.32	0.211

Material Safety Data Sheet

1、Composition, Information on Ingredients

Chemical character:Medal solder material		
Foe component	Chroma or range	Sort
Tin,Sin	97-98%	No.9 -other
Copper,Cu	<0.7%	No.9-other
Rosin	<2%	No.9-other

2、Hazard Identification

Most Important Health Hazards and Reactions	Health Hazards and Reactions :
	(acute) Inbibe : Too high temperature when melt solder(about 500° C upward),it will produce metal smoke,inbibe it will cause anemia,insomnia,weak,astriction,sick,bellyache.It will be harm the haematogenous enginery. Eat : Sick up. Eye、 skin : Melting metal and high temperature touch skin will cause scald.
	Environmental Impact : No information
	Physical and Chemical Hazards : No
Specific Hazards : No	
Cardinal Symptoms : qualm,headache,puncture,skin allergic.	
Hazard Classification : No.9,other dangerous	

3 · First Aid Measures

First Aid Measures for Different Kinds of Exposures :
<ul style="list-style-type: none"> • Inhalation : Move the sufferer to the , watch the doctor if breath difficult. • Skin Contact : Wash affected part with soap and water , watch the doctor when the thrill still remain. • Eye Contact : Wash eyes quiteyly , and watch the doctor when the thrill still remain. • Ingestion : Queasy by nurse at once in demand , shouldn't ahoy anything to the person when he is out of the count.
Most Important Symptoms and Hazard Reactions : Sense of stimulate from skin and apparatus .

4 · Fire Fighting Measures :

Suitable Extinguishing Media : Lead 、 dolomite 、 sodium oxide

Special Hazards in Fire : Forbiding use water 、 Halid-alkyl fire extinguisher or A 、 B 、 or C fire extinguisher ◦

Special Fire-Fighting Procedures : No

Required Special Protective Equipment for Fire-Fighters : Firemen should wear exposure suit and air tank ◦

5 、 Accidental Release Measures

Personal Precautions : Move out all flaring resource 、 Splashing area airiness plenty 、 Wearing defend furnishment.

Environmental Precautions : Prevent the power dirt dispel with air and dispel with water 、 splashing matter put in airtight case.

Methods for Cleaning : Use the tools that can't cause light and equip clear up splashing down that prevent the power dirt dispelling in air.

6 、 Handling and Storage

Handling : Unable recycling material 、 Should check the product and scrap up, Handling carefully the empty case that possible remain power dirt or solding and will be dangerous 、 the person should read all the aphorism and defend measure on the case.

Storage : Keep in airtight case 、 Deposited in cool 、 dry and airiness area 、 Prevent physics damage 、 Away from heat and flaring resource ◦

7 、 Exposure Controls, Personal Protection

Engineering Measures : No

Control Parameters :

- Average admit chroma in eight hours every day(TWA)/Average admit chroma in short time(STEL)/Hightest admit chroma(CEILING) : 2mg/m³

- B EIs : No

Personal Protection Equipment :

- Respiration : Hemihedral prevent power dirt veil (10-50 times exposition) ◦
- Hand : Wearing all-sided observe press shield when in urgency ◦
- Eye : Wearing chemical goggle , there are washing eyes in working area ◦
- Skin & Body defend : Wearing defend gloves and cleaning long clothings ◦

Hygiene Measures : No smoing in working area 、 bite and sup ◦ Must washing hands after work and before bit and sup.

8 、 Physical and Chemical Properties

State of Substance : Metal linear	Appearance : Linear
Color : Silver-gray metal solid	Odor : Monotony
pH cost : Not fit for	Boiling Point : No fit for
Decomposing Temperature : Not fit for	Flashpoint : Not fit for °F Not fit for °C Test : Not fit for Test Methods : Open Slot Closed Slot
Self-Igniting Temperature : Not fit for	Explosion Limits : Not fit for
Vapor Pressure : (21.1°C) : 0	Vapor Density : No information
Density : 7.4/cm ³	Dissolution : Not dissolve in water

9 、 Stability and Reactivity

Error! No bookmark name given. Stability : Compose
Possible Hazard Reaction Under Special Conditions :
Conditions to Avoid : Heat 、 blaze 、 phogiston and incompatibility matter ◦

Materials to Avoid : Halogen and trioxid 、 Copper nitrate 、 Peroxide-Na and Kalium 、 Sulfur and some acid ◦

Hazardous Decomposition Products : No

10 、 Toxicological Information

Acute Toxicity : No

Local Reactions : No

Sensitivity : No

Chronic or Long Term Toxicity : No

Special Reactions : No information to check

11 、 Ecological information

Possible Environmental Impact/Environmental Run-offs :

Water poisoning : No

Moving 、 biology pile : No

12 、 Disposal considerations

Disposal Methods : Not fit for

No use or remain gas : Not fit for

Urgency status : Not fit for

13 、 Transport information

Transport information

International Transportation Regulations : International Transportation Regulations of

No-Dangerous Good : Yes

UN Reference No. : Fit for

Domestic Transportation Regulations : Preclusive according operation and notice proceeding about storage, should use hard container to pack, such as hard plastic carton.

Special Transportation way : Airway or sea way is available

14、Regulatory information

Applicable Regulation : Labor safety saitation act、Poisoning defend statute、Castoff clear。