

IDENTITY:

LEAD FREE SOLDER ALLOY : SF-B^A ^B A= 10, 40, 80 B= 03, 04, 06, 08, 10, 12

Section 1 - Company Information

Manufacturer's Name: TAIYO ELECTRIC IND. CO.,LTD.	Email: info@goot.co.jp
Address: 2-16-8 Yamate Fukuyama Hiroshima Prefecture Japan 720-0092	Telephone Number / Fax Number for Information: Tel : 81-(84)-951-1512 Fax : 81-(84)-951-9531
	Data Prepared: 2006-2-14

Section 2 - Hazardous Ingredients/Identity Information

COMPONENT	SYMBOL	CAS No.	OSHA PEL	ACGIH TLV	%
Tin	Sn	7440-31-5	2.0mg/m ³	2.0mg/m ³	96.0wt%
Silver	Ag	7440-22-4	Not Available	0.1mg/m ³	0.29wt%
Copper	Cu	7440-50-8	Not Available	0.2mg/m ³	0.68wt%
Rosin	C ₁₉ H ₂₉ COOH	65997-05-9	Not Available	Not Available	2.8wt%

Physical and Chemical Hazards : Not Available
Adverse Human Health Affects : Sn – Generally not hazardous Ag – mildly toxic
Class Name of Hazardous Chemicals for SDS in Japan : Acute toxic substances
Environmental Effects : Caution is required not to contaminate environment. Hazardous for water. Do not allow to enter sewers/surface or ground water.

Section 3 - Physical/Chemical Characteristics

Boiling Point	Sn 2270°C Ag 2210°C	Vapor Pressure (mm Hg)	Not Available
Melting Point (°C)	216-227°C	Vapor Density (AIR=1)	Not Available
Specific Gravity (H ₂ O=1)	6.1	Evaporation Rate (Butyl Acetate=1)	Not Available
Solubility in Water	Insoluble		
Appearance and Odor	Silver grey colored solid metal wire, mild odor		
Other	Contains combustible substances		

Section 4 - Fire and Explosion Hazard Data

Flash Point: Not Available	Flammable Limits: Not Available	LEL ---	LEL ---
Extinguishing Media: Water, Powder spray, Dry chemical, Alcohol resistant foam, CO ₂ . Do not use water if metal is molten.			
Special Fire Fighting Procedure: Use blanket effect to smother fire. Extinguish from upwind. Avoid inhalation of vapor.			
Usual fire and explosion hazard: If you use water at fire fighting, may cause steam explosion.			

Section 5 - Reactivity Data IDENTITY

Stability:	Unstable Stable	YES	Conditions to Avoid:
Incompatibility:	Oxidants such as HNO ₃		
Hazardous Decomposition or Byproducts:	Not available		
Hazardous Polymerization:	May Occur Will Not Occur	YES	Conditions to Avoid:

Section 6 - Health Hazard Data

Routes of Entry	Inhalation / Ingestion / Skin Contact / Eye Contact / Absorption
Health Hazards:	<p>Eyes: Can cause moderate irritation</p> <p>Skin: Can cause slight irritation</p> <p>Inhalation: Soldering fumes can cause respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Moderate irritant to gastrointestinal tract.</p> <p>Ingestion: May cause kidney and liver damage.</p>
Carcinogenicity	<p>NTP: Not Available</p> <p>IARC Monographs: Not Available</p> <p>OHSA: Not Available</p> <p>Signs and Symptoms of Exposure: Weakness, vomiting, stupor, anemia, loss of Appetite</p>
Medical Conditions Aggravated	Pre-existing digestive tract disease, eye, skin, or respiratory disorders may be aggravated by exposure to this product.
Emergency and First Aid Procedures:	<p>Eyes: Immediately flush eyes with plenty of water holding lids apart to ensure flushing of entire surface for at least 15 minutes. Contact a physician.</p> <p>Skin: Immediately wash contaminated skin with water or warm soapy water and contact a physician. Remove contaminated clothing.</p> <p>Indigestion: Rinse mouth out. Get the victim to vomit immediately. Seek immediate medical attention.</p> <p>Inhalation: Remove the person from contaminated area to a place with the fresh air, and contact a physician.</p>

Section 7 - Precautions for Safe Handling and Use

<p>Steps to be taken in Case Material is Released or Spilled:</p> <p>Remove all sources of ignition. Let cool before picking up.</p> <p>Sweep or shovel the solid spilled material into a clean container.</p> <p>Avoid contact with skin, eyes and clothing. If necessary wear rubber gloves, respiratory mask and wipe the spill using cloth soaked with alcohol.</p>
<p>Waste Disposal Method:</p> <p>In accordance with state and local regulations. Contact a licensed company.</p>
<p>Precautions to be Taken in Handling and Storing:</p> <p>Keep away from sources of heat and open flame. Keep in a cool and dark place preferably a lockable cabinet. Avoid contact with skin. Wear protective glasses and mask if necessary. Try to avoid scattering solder waste around the work area. Do not consume food or drink in the work area. Rinse out mouth and wash hands after use. Do not take protective clothing home.</p>
<p>Other precautions:</p> <p>Avoid contact with eyes or skin. Use only in a well ventilated area.</p>

Section 8 - Control Measures

Respiratory Protection:	Local exhaust, wear respiratory filter.	
Ventilation:	Local Exhaust: YES	Special: Not applicable
	Mechanical: YES	Other: Not applicable
Protective Gloves: Chemical resistant	Eye Protection: Safety glasses or goggles	Other Protective Clothing or Equipment: Clothing to prevent skin contact.

Section 9 - Other Information

<p>The information herein is given in good faith, but not a warranty. Final determination of suitability any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.</p>
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