Section 1 - Product and Company Information

Identity:				
LEAD FREE SOLDER: SF-A0403, -A0404, -A0406, -A0408, -A0410				
Manufacturer's Name:	Email:			
TAIYO ELECTRIC IND. CO.,LTD.	info@goot.co.jp			
Address:	Telephone Number / Fax N	lumber for Information:		
2-16-8 Yamate Fukuyama Hiroshima Prefecture	Tel: 81-(84)-951-1512	Fax: 81-(84)-951-9531		
Japan 720-0092	Data Prepared:	Revised date:		
	2011-7-29	2014-4-10		

Section 2 - Composition / Information on Ingredients

COMPONENT	SYMBOL	CAS No.	OSHA PEL	ACGIH TLV	%
Tin	Sn	7440-31-5	2.0mg/m ³	2.0mg/m ³	90-100 wt%
Silver	Ag	7440-22-4	Not Available	0.1mg/m ³	1-10 wt%
Copper	Cu	7440-50-8	Not Available	0.2mg/m ³	0.1-3 wt%
Rosin			Not Available	Not Available	1-10 wt%

Section 3 - Hazards Identification

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	

Section 4 - First-aid Measures

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.
Skin:	Immediately wash contaminated skin with water or warm soapy water and contact a physician.
	Remove contaminated clothing.
Indigestion:	Rinse mouth out. Get the victim to vomit immediately. Seek immediate medical attention.
Inhalation:	Remove the person from contaminated area to a place with the fresh air, and contact a
	physician.

Section 5 - Firer-fighting Measures

Flash Point:	Flammable Limits:	LEL	LEL
Not Available	Not Available		
Extinguishing Media:	·		
Water, Powder spray, Dry chemic	cal, Alcohol resistant foam, CO2. Do	not use water if metal	is molten.
Special Fire Fighting Procedure:			
Use blanket effect to smother fire	e. Extinguish from upwind. Avoid inl	halation of vapor.	
Usual fire and explosion hazard:			
If you use water at fire fighting, m	ay cause steam explosion.		

Section 6 - Accidental Release Measures

Steps to be taken in Case Material is Released or Spilled:

Remove all sources of ignition. Let cool before picking up. Sweep or shovel the solid spilled material into a clean container. Avoid contact with skin, eyes and clothing. If necessary wear rubber gloves, respiratory mask and wipe the spill using cloth soaked with alcohol.

Section 7 - Handling and Storage

Precautions to be Taken in Handling and Storing:

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.

Other precautions:

Avoid contact with eyes or skin. Use only in a well ventilated area.

Material Safety Data Sheet

Section 8 - Exposure Controls / Personal Protection

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

SF-A series

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Section 9 - Physical and Chemical Properties

Boiling Point	Sn	2270°C	Vapor Pressure (mm Hg)	Not Available
	Ag	2210°C	vapor r ressure (minring)	Not Available
Melting Point (°C)	217-220	°C	Vapor Density (AIR=1)	Not Available
Specific Gravity (H2O=1)	7.4 (20°0	C)	Evaporation Rate (Butyl Acetate=1)	Not Available
Solubility in Water	Insoluble	Insoluble		
Appearance and Odor	Silver gr	Silver grey colored solid metal wire, mild odor		
Other	Contains	Contains combustible substances		

Section 10 - Stability and Reactivity

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

Section 11 - Toxicological Information

Section 11 - Toxicolog	icai information
Routes of Entry	Inhalation / Ingestion / Skin Contact / Eye Contact / Absorption
Health Hazards:	
Eyes	Can cause moderate irritation
Skin	Can cause slight irritation
Inhalation	Soldering fumes can cause respiratory irritation, dizziness, weakness, fatigue, nausea
	and headache. Moderate irritant to gastrointestinal tract.
Ingestion	May cause kidney and liver damage.
Carcinogenicity	NTP: Not Available
	IARC Monographs: Not Available
	OHSA: Not Available
	Signs and Symptoms of Exposure: Weakness, vomiting, stupor, anemia, loss of
	Appetite
Medical Conditions	Pre-existing digestive tract disease, eye, skin, or respiratory disorders may
Aggravated	be aggravated by exposure to this product.

Section 12 - Ecological Information

Environmental Effects:

Caution is required not to contaminate environment. Hazardous for water.

Do not allow to enter sewers/surface or ground water.

Section 13 - Disposal Considerations

Waste Disposal Method:

In accordance with state and local regulations. Contact a licensed company.

Section 14 - Transport Information

When transportation is done to ensure a fall, fall, damage, prevention of collapse of cargo.

Section 15 - Regulatory Information

Follow all regulations in your country.

Section 16 - Other Information

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.