

**MATERIAL SAFETY DATA SHEET***Complies with OSHA Hazard Communication Standard 29CFR 1910.1200*

Rev. 10/03/11

**LEAD-FREE ALLOY****Tin-Silver-Copper Alloys  
Rosin Core****BOW ELECTRONIC SOLDERS  
1 CROSSMAN ROAD  
SAYREVILLE, NJ 08872****Phone No. 732-316-2100  
Infotrac Emergency No.: 1-800-535-5053****1. PRODUCT INGREDIENTS**

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>Permissible Air (Concen.(mg/cu.m.))</u>		<u>SARA Title III Sect.313Chem</u>
			<u>OSHA</u>	<u>ACGIH</u>	
TIN	7440-31-5	>95%	2.0	2.0	NO
COPPER	7440-50-8	<1%	.1	.2	NO
SILVER	7440-22-4	<4%	.1	.1	NO
ROSIN	8050-09-7	1-3	N/A	N/A	NO

**2. PHYSICAL DATA**

<b>Material is SOLID</b>	<b>Appearance and Odor SILVER-WHITE METAL, CORE HAS LIGHT ROSIN ODOR.</b>		
<b>Melting Point APPROX. 430°F CORE 250°F</b>	<b>Boiling Point &lt;4000°F</b>	<b>Specific Gravity APPROX. 7.1 1.1</b>	<b>Vapor Density N/A</b>
<b>Solubility in Water INSOLUBLE</b>	<b>Vapor Pressure N/A</b>	<b>Evaporation Rate N/A</b>	<b>PH N/A</b>

**3. FIRE AND EXPLOSION DATA**

<b>Flash Point N/A CORE 300°F</b>	<b>Flammable Limits N/A N/A</b>	<b>Auto Ignition Temp. N/A N/A</b>
---------------------------------------	-------------------------------------	--

**Unusual Fire and Explosion Hazards  
IN EXTREMELY HIGH TEMPERATURE FIRE OR IN CONTACT WITH CERTAIN ACIDS, MAY EMIT TOXIC FUMES. USE SELF-CONTAINED RESPIRATORY SYSTEM.**

**Fire Extinguishing Agents Recommended  
USE CO2 OR DRY CHEMICAL ON SURROUNDING FIRE**

<b>NFPA CODES:</b>	<b>HEALTH - 1</b>	<b>HMIS CODES:</b>	<b>HEALTH - 1</b>
	<b>FLAMMABILITY - 0</b>		<b>FLAMMABILITY - 0</b>
	<b>REACTIVITY - 0</b>		<b>REACTIVITY - 0</b>
	<b>OTHER - 0</b>		<b>OTHER - 0</b>

#### 4. HEALTH HAZARD INFORMATION

Primary Route of Entry  
INGESTION                      X    INHALATION                                      ABSORPTION

##### Carcinogenicity

THIS PRODUCT HAS NOT BEEN LISTED AS A SUSPECT CARCINOGEN BY NTP, IARC OR OSHA. THIS PRODUCT CONTAINS LESS THAN .02% LEAD.

##### Acute Overexposure(symptoms and effects)

SEVERE SHORT-TERM OVEREXPOSURE MAY LEAD TO CENTRAL NERVOUS SYSTEM DISORDERS, CHARACTERIZED BY FEVER, BODYACHE AND CHILLS. IT SHOULD BE RECOGNIZED THAT EXPOSURE OF THIS MAGNITUDE IN AN INDUSTRIAL ENVIRONMENT IS EXTREMELY UNLIKELY.

##### Chronic Overexposure(symptoms and effects)

PROLONGED EXPOSURE TO FUMES OF MOLTEN METAL OR FLUX USED DURING SOLDERING OPERATION MAY CAUSE IRRITATION OF THE RESPIRATORY TRACT. ROSIN IS A POTENTIAL ALLERGENIC-CAN CAUSE A RASH OR OTHER ALLERGIC REACTION TO A ROSIN SENSITIVE PERSON. CHRONIC OVEREXPOSURE TO THE FUMES FROM THE FLUX MAY CAUSE IRRITATION TO THE PULMONARY SYSTEM AND LUNG DISEASE.

##### Medical Conditions Possibly Aggravated By Exposure

THE SYMPTOMS OF IMPAIRED PULMONARY FUNCTIONS OR ILLNESS MAY BE WORSENERD BY FUME IRRITANTS.

##### First Aid Procedures

INHALATION: REMOVE FROM EXPOSURE AND CALL A PHYSICIAN.  
SKIN CONTACT: WASH AFFECTED AREAS WITH SOAP AND WATER. IF BURNS SHOULD OCCUR FROM MOLTEN METAL TREAT FOR BURN AND GET IMMEDIATE MEDICAL ASSISTANCE.  
EYE CONTACT: FLUSH EYES WITH WATER FOR 15 MINUTES, CALL A PHYSICIAN.  
INGESTION: INGEST LARGE QUANTITIES OF WATER. CALL A PHYSICIAN.

---

#### 5. PRECAUTIONS/PROCEDURES

OVERHEATING OF ALLOY CAN PRODUCE METAL FUMES AND OXIDES. MACHINING OPERATIONS SUCH AS GRINDING, SAWING OR BUFFING CAN GENERATE AIRBORN PARTICULATES IN THE WORK AREA. EXPOSURE LEVELS INDICATED IN SECTION 1 ARE RELEVANT TO THESE AND OTHER OPERATIONS.

##### Normal Handling

USE OF APPROVED RESPIRATORS IS REQUIRED FOR APPLICATIONS WHERE ADEQUATE VENTILATION CANNOT BE PROVIDED. ACTIVITIES WHICH GENERATE EXCESSIVE DUST OR FUMES SHOULD BE AVOIDED.

##### Spill or Leak

ANY METHOD THAT KEEPS DUST TO A MINIMUM IS ACCEPTABLE. VACUUMING IS PREFERRED. USE OF APPROVED RESPIRATORY PROTECTION WHERE POSSIBILITY OF DUST/FUME EXPOSURE EXISTS. DO NOT USE COMPRESSED AIR FOR CLEANING.

##### Personal Hygiene

AVOID INHALATION OR INGESTION. PRACTICE GOOD HOUSEKEEPING AND PERSONAL HYGIENE PROCEDURES.

##### Engineering Controls

