

Section 1 - Product and Company Information

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| Identity: Metal-work solder: SE-0BA16 | |
| 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: 2003-7-31 |

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 | 45 wt% |
| Lead | Pb | 7439-92-1 | 50µg/m ³ | 0.1mg/m ³ | 55wt% |

Section 3 - Hazards Identification

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| Physical and Chemical Hazards: Not Available |
| Adverse Human Health Affects: Contains lead |
| Class Name of Hazardous Chemicals for SDS in Japan: Acute toxic substances |

Section 4 - First-aid Measures

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| 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: | 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

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| Flash Point: Not Available | Flammable Limits: Not Available | LEL --- | LEL --- |
| Extinguishing Media: Dry chemical, Foam, Carbon dioxide. 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 6 - Accidental Release Measures

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| 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. Wear rubber gloves, respiratory mask and wipe the spill using cloth soaked with alcohol. |
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Section 7 - Handling and Storage

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| 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. |

Section 8 - Exposure Controls / Personal Protection

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| Respiratory Protection: | Local exhaust, wear respiratory filter. | | |
| Ventilation: | Local Exhaust: | YES | Special: Not applicable |
| | Mechanical: | YES | Other: Not applicable |

Material Safety Data Sheet

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| Protective Gloves: Chemical resistant | Eye Protection: Safety glasses or goggles | Other Protective Clothing or Equipment: Clothing to prevent skin contact. |
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Section 9 - Physical and Chemical Properties

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| Boiling Point | Not Available | Vapor Pressure (mm Hg) | Not Available |
| Melting Point (°C) | 187-227°C | Vapor Density (AIR=1) | Not Available |
| Specific Gravity (H ₂ O=1) | 9.1 | Evaporation Rate (Butyl Acetate=1) | Not Available |
| Solubility in Water | Insoluble | | |
| Appearance and Odor | Metal wire, mild odor | | |
| Other | UN | | |

Section 10 - Stability and Reactivity

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| Stability: | Unstable | | Conditions to Avoid: - - - |
| | Stable | YES | |
| Incompatibility: | Strong acid, Strong oxidants such as HNO ₃ | | |
| Hazardous Decomposition or Byproducts: | Tin, CO, CO ₂ , Hydrocarbon, NH ₃ , HBr, Lead | | |
| Hazardous Polymerization: | May Occur | | Conditions to Avoid: - - - |
| | Will Not Occur | YES | |

Section 11 - Toxicological Information

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| Routes of Entry | Inhalation / Ingestion / Skin Contact / Eye Contact / Absorption |
| Health Hazards: Acute toxicity: | [Lead] Physical narcosis, diarrhea, vomiting, blood in the stool, kidney damage, causes death in 1 - 2days. |
| Chronic toxicity: | [Lead] Weakness, headache, numbness of the limbs, convulsions, urinary disorder etc.. |
| Health Hazards: Eyes: Skin: Inhalation: Ingestion: | Can cause severe irritation Can cause irritation, dermatitis. Soldering fumes can cause respiratory irritation, kidney and liver damage. Overheating may produce tin fumes leading to tin poisoning. May cause kidney and liver damage, tin poisoning. |
| 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 Aggravated | Generally aggravated by exposure. Pre-existing eye, skin, or respiratory disorder may be aggravated by exposure to this product. |

Section 12 - Ecological Information

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| Environmental Effects: Caution is required not to contaminate environment. Hazardous for water. Do not allow to enter sewers/surface or ground water. |
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Section 13 - Disposal Considerations

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| Waste Disposal Method: In accordance with state and local regulations. Contact a licensed company. |
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Section 14 - Transport Information

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| When transportation is done to ensure a fall, fall, damage, prevention of collapse of cargo. |
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Section 15 - Regulatory Information

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| Follow all regulations in your country. RoHS compatible: No (contains lead) |
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Section 16 - Other Information

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| 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. |
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