



SHENMAO Technology Inc.

MATERIAL SAFETY DATA SHEET

1、CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME : Lead Free Cored Solder Wire

PRODUCT IDENTIFIER: PF610-R □0.3-3.0 mm

Revised Date: 13 JULY2005

MANUFACTURER:

In Taiwan:

Shenmao Technology Inc.

No.12-1 Gongye 2nd Rd., Guanyin Industrial Area,
Taoyuan County 328, Taiwan

Tel: (886)3-416-0177 Fax: (886)3-416-0133

In Malaysia:

Shenmao Solder (M) Sdn. Bhd.

No.7, Lorong Jelawat Lapan, Kawasan
Perusahaan Seberang Jaya, Seberang

Jaya S.P.T.13700 Perai, ,

Pulau Pinang, Malaysia

Tel:(604) 399-5259 Fax:(604)399-5258

In China:

Shenmao Solder Material (Suzhou) Co., Ltd..

Chung San N., Rd, Wu Chiang Economic Development Area, ,
Sung Lin Town, Wu Chiang City, Suzhou Province, R.P.C.

Tel: (86)512-6345-1092 Fax: (86)512-6345-1095

Dong Guan Shenmao Soldering Tin Co., Ltd.

The 2nd Ind. Area Jiumen Village Hu Men Town

Dong Guan City, China.

Tel:(86)769-550-8193 Fax:(86)769-550-4789

2、COMPOSITION, INFORMATION OR INGREDIENT

| Components-Chemical Name | wt.% | CAS No. |
|----------------------------|-----------------------|-----------|
| Rosin | >1.8% | 8050-09-7 |
| Activator | <0.1% | N.E. |
| Other composition | <0.1% | N.E. |
| Tin (Sn) | 82.5~87.5 | 7440-31-5 |
| Silver (Ag) | 2.5~2.8 | 7440-22-4 |
| Copper (Cu) | 0.42~0.46 | 7440-50-8 |
| Nickel (Ni) | 0.03~0.05 | 7440-02-0 |
| Germanium (Ge) | 0.005~0.008 | 7440-56-4 |
| PS. Sn +Ag +Cu+Ni+Ge : 89% | N.E.= Not established | |

3 、 HAZARDS IDENTIFICATION

EYE CONTACT:

Contact with material at room temperature or fume from material at typical re-flow temperatures over 100 °C may cause eye irritation.

SKIN CONTACT:

Can cause slight irritation.

INGESTION:

Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

INHALATION:

Vapors or fumes from this material at typical re-flow temperatures over 100°C may cause local irritation to the respiratory system.

4 、 FIRST AID MEASURES

EYE CONTACT :

Gently rinse the affected eyes with clean water for at least 15 minutes.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

SKIN CONTACT :

Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

INHALATION :

Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

INGESTION :

Give the person one or two glasses of water or solution of salt, try to get the victim to vomit.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

5 、 FIRE FIGHTING MEASURES

EXTINGUISH MEDIA :

Use alcohol resistant foam, carbon dioxide or dry chemical extinguishing agents.

FIRE-FIGHTING INSTRUCTIONS :

Shut off fuel to fire if possible to do so without hazard.
Evacuate area and fight fire from a safe distance.
Apply water from a safe distance to cool and protect surrounding area.
Firefighters should wear proper protective equipment.

FLASH POINT : Not applicable**EXPLOSION LIMIT :** Not available

6 、 ACCIDENTAL RELEASE MEASURES

Shut out all sources of ignition; No flare, smoking or flames in area.

Wear proper protective equipment.
 For spills, wipe and scrape away with cloth or paper, take up and store in a sealed container.

7 · HANDLING AND STORAGE

HANDLING :
 Do not use fire near storage area.
 Wear proper protective equipment.

STORAGE :
 Store in dry conditions.
 Exposure to sulfur or to high humidity will tarnish solder surface.

8 · EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING MEASURES :
 Use only with adequate ventilation and in closed systems.
 Make available emergency shower and eye wash in the work area.

EXPOSURE GUIDELINES :
 ACGIH TLV: 0.1mg/m³ (Silver) 2mg/m³ (Tin)

PROTECTIVE EQUIPMENT :
 RESPIRATORY PROTECTION : Industrial canister gas masks.(Heating)
 EYE PROTECTION : Safety goggles.
 HAND, SKIN AND BODY PROTECTION : Rubber gloves.
 Selection of specific items such as boots, apron or full-body suit will depend on operation.

9 · PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------|-------------------------------------|
| APPEARANCE | Sliver grey solid |
| BOILING POINT | Undetermined |
| VAPOR PRESSURE | <0.01mmHg(20°C) |
| MELTING POINT | 219°C (Solder) |
| SPECIFIC GRAVITY | 7.4g/cm ³ (Solder, 20°C) |
| SOLUBILITY (IN WATER) | Almost Insoluble |

10 · STABILITY AND REACTIVITY

Thermal decomposition:
 No decomposition if used according to specifications.

Materials to be avoided:
 Strong acids, strong oxidizers.

Dangerous reactions:
 No dangerous reactions known.

Dangerous products of decomposition:
 No dangerous decomposition products known.

11 · TOXICOLOGICAL INFORMATION

Acute toxicity:**Primary irritant effect:**

On the skin: No irritant effect.

On the eye: Smoke during soldering can cause eye irritation.

Through inhalation: May cause respiratory irritation.

Through ingestion: May be harmful if swallowed.

Sensitization: No sensitizing effects known.

12 · ECOLOGICAL INFORMATION

General notes: Do not allow product to reach ground water, water course or sewage system.

13 · DISPOSAL CONSIDERATIONS

Recommendation:

- Dispose must be according to official regulations.
- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 · TRANSPORT INFORMATION

UN CLASS : Not applicable

UN NUMBER : Not applicable

Follow all regulations in your country.

15 · REGULATORY INFORMATION

APAN STATUS

EXISTING CHEMICAL SUBSTANCES(MITI) : Listed.

HCS Classification

Irritating substance.

Sensitizing substance.

Target organ effects.

US STATUS

TSCA INVENTORY : All ingredients listed.

State Regulation

Rhode Island RTK hazardous substances: Tin

Florida: Tin; Sliver; M-Pyrrol; Rosin

Minnesota: Tin; Silver; M-Pyrrol; Rosin

Michigan critical material: Silver

Massachusetts RTK: Tin; Sliver; Copper; M-Pyrrol

New Jersey spill list: Tin

California Proposition 65

Chemicals known to cause cancer:

WARNING: This product may contain a chemical in trace amounts known to the State of California to cause cancer.

Cadmium:7440-43-9
Nickel:7440-02-0
Cadmium:7440-43-9

INTERNATIONAL REGULATIONS

EINECS: No available.

DSCL (EEC):

36/38-Irritationg to eyes and skin.

42/43-Msy cause sensitization by inhalation and skin contact.

International Lists:

Australia (NICNAS): All compounds

Korea (TCCL): All compounds

Philippines (RA6969): All compounds

LABELING ACCORDING TO EEC DIRECTIVES :

HAZARD SYMBOL : T-Toxic

RISK PHRASES : R 61-62-20/22-33

SAFETY ADVICES : S 53-45

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

16 、 OTHER INFORMATION

REFERENCE:

AIR PRODUCTS MSDS 、 INTERNATIONAL MARITIME DANGEROUS GOODS CODE

| HAZARDOUS | NFPA | HMIS | LEVEL : 0~4 : From least to serious |
|--------------|------|------|--|
| HEALTH | 1 | 1 | NFPA : National Fire protection Association rating identifies hazards during a fire emergency. |
| FLAMMABILITY | 1 | 1 | |
| REACTIVITY | 0 | 0 | HMIS : Hazardous Materials Identification System rating applies to process as packaged. |

COUNTRY OF ORIGIN: TAIWAN, R.O.C

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|---------------|---|---------|-----------------|
| | SHENMAO TECHNOLOGY INC. | | |
| PREPARED BY | No.12-1 Gongye 2nd Rd., Guanyin Industrial Area, Taoyuan County 328, Taiwan | | |
| | TEL : +886-3-416-0177 | FAX | +886-3-416-0133 |
| ISSUED | SHENMAO R&D | NAME | Warren Chang |
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