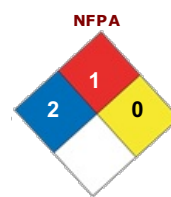


| Personal Protective Equipment                                                     |                                                                                   | WHMIS Pictograms                                                                  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |
| Protective Gloves                                                                 | Chemical Splash Goggles                                                           | D2A Toxic                                                                         |

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** FL250D Sn63Pb37  
**Product Code:** FL250D  
**MSDS Manufacturer Number:** FL250D  
**Manufacturer Name:** Kester  
**Address:** 800 W. Thorndale Avenue  
Itasca, IL 60143  
**General Phone Number:** (630)-616-4000  
**Customer Service Phone Number:** (800)-2KESTER (253-7837)  
**CHEMTREC:** For emergencies in the US, call CHEMTREC: 800-424-9300 Outside of the U.S. and Canada: (703) 527-3887  
**Website:** msds@kester.com  
**MSDS Creation Date:** June 12, 2009  
**MSDS Revision Date:** September 30, 2012



| HMIS                |    |
|---------------------|----|
| Health Hazard       | 2* |
| Fire Hazard         | 1  |
| Reactivity          | 0  |
| Personal Protection |    |

\* Chronic Health Effects

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                      | CAS#        | Ingredient Percent | EC Num. |
|------------------------------------|-------------|--------------------|---------|
| Hydrogenated Rosin                 | 65997-06-0  | 1 - 5 by weight    |         |
| Lead                               | 7439-92-1   | 30 - 60 by weight  |         |
| Polymerized rosin                  | 65997-05-9  | 1 - 5 by weight    |         |
| Tetraethyleneglycol Dimethyl Ether | 143-24-8    | 1 - 5 by weight    |         |
| Tin                                | 7440-31-5   | 30 - 60 by weight  |         |
| Proprietary                        | Proprietary | 1 - 5 by weight    |         |

## SECTION 3 - HAZARDS IDENTIFICATION

**Emergency Overview:** WARNING! Irritant. Potential Sensitizer Exposures to soldering fumes and vapors may be irritating to eyes, respiratory system, and skin. Carcinogenic Category 2

**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.

**Potential Health Effects:**

**Eye:** Smoke during soldering can cause eye irritation.

**Skin:** May cause skin irritation.  
May cause an allergic skin reaction  
May be absorbed through the skin in harmful amounts.

**Inhalation:** Inhalation of vapors, fumes or mists of the product may be irritating to the respiratory system.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
Harmful if inhaled

**Ingestion:** Ingestion of the product may produce gastrointestinal irritation and disturbances.  
Fatal if swallowed

**Chronic Health Effects:** Suspected of damaging fertility or the unborn child  
Repeated and prolonged exposure to lead and lead compounds may cause abdominal pain, diarrhea, loss of appetite, metallic taste, nausea, vomiting, lassitude, insomnia, muscle weakness, joint and muscle pain, irritability, headache and dizziness.

Red blood cells may be damaged resulting in anemia. Gastritis and injury to the kidneys, liver, male gonads, and central nervous system may also occur.

**Target Organs:** Eyes. Skin. Respiratory system. Digestive system. Central nervous system. Liver. Kidney.

**Aggravation of Pre-Existing Conditions:** May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

#### Lead

**Carcinogenicity:** IARC: Group 2B: Possibly carcinogenic to humans.

### SECTION 4 - FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of overexposure persists.

**Skin Contact:** Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

**Ingestion:** If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

### SECTION 5 - FIRE FIGHTING MEASURES

**Flash Point:** > 93°C (> 199°F)

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

**Protective Equipment:** As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

**Hazardous Combustion Byproducts:** Oxides of carbon, oxides of nitrogen, aliphatic aldehydes, and other organic substances may be formed during combustion..

#### **NFPA Ratings:**

**NFPA Health:** 2

**NFPA Flammability:** 1

**NFPA Reactivity:** 0

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personnel Precautions:** Avoid contact with eyes and skin. Use proper personal protective equipment as listed in section 8.

**Environmental Precautions:** Avoid runoff into storm sewers, ditches, and waterways.

**Methods for containment:** Contain spills with an inert absorbent material such as soil, sand or oil dry. Prevent from spreading by covering, diking or other means.

**Methods for cleanup:** Pick or scoop up material and put into a suitable container for proper disposal.

### SECTION 7 - HANDLING and STORAGE

**Handling:** Use with adequate ventilation. Avoid breathing vapor and fumes. Use only in accordance with directions.

**Storage:** Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Recommended storage temperature is between 0°C and 10°C (32°F and 50°F).

**Hygiene Practices:** Wash thoroughly after handling. Avoid inhaling vapors, mists, or fumes.

### SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

**Engineering Controls:** Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

**Eye/Face Protection:** Tightly fitting safety goggles.

**Skin Protection Description:** Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data. Nitrile rubber or natural rubber gloves are recommended.

**Respiratory Protection:** The need for respiratory protection will vary according to the airborne concentration of the decomposition products released and accumulated in the area. In case of insufficient ventilation, wear suitable respiratory equipment. Wear the appropriate respiratory protection according to the conditions and exposure levels in the area.

**PPE Pictograms:**



#### EXPOSURE GUIDELINES

**Lead:**

Guideline ACGIH: TLV-TWA: 0.05 mg/m<sup>3</sup>  
 Guideline OSHA: PEL-TWA: 0.05 mg/m<sup>3</sup>

**Tin:**

Guideline ACGIH: TLV-TWA: 2 mg/m<sup>3</sup>  
 Guideline OSHA: PEL-TWA: 2 mg/m<sup>3</sup>

### SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

**Physical State Appearance:** Paste.

**Color:** Silver Gray

**Boiling Point:** Not determined.

**Melting Point:** Not determined.

**Density:** > 4.5 g/cm<sup>3</sup> at 20°C (68°F)

**Solubility:** Insoluble

**Flash Point:** > 93°C (> 199°F)

**Explosive Properties:** Product does not present an explosion hazard.

### SECTION 10 - STABILITY and REACTIVITY

**Chemical Stability:** Stable under normal temperatures and pressures.

**Hazardous Polymerization:** Not reported.

**Conditions to Avoid:** No thermal decomposition if used according to specifications.

**Incompatible Materials:** Oxidizing agents. Strong acids and alkalis.

### SECTION 11 - TOXICOLOGICAL INFORMATION

**Lead:**

**Ingestion:** Oral - Rat TDLo: 0.2 mg/kg [Reproductive - Paternal Effects - Spermatogenesis (including genetic material, sperm morphology, motility, and count)]  
 Oral - Rat TDLo: 1050 ug/kg/30W (Intermittent) [Brain and Coverings - Other degenerative changes Behavioral - Alteration of classical conditioning Nutritional and Gross Metabolic - changes in metals, not otherwise specified]  
 Oral - Rat TDLo: 93.6 mg/kg/30D (Continuous) [Kidney/Ureter/Bladder - Other changes Blood - Other changes Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other enzymes]  
 Oral - Rat TDLo: 43.75 mg/kg/1W (Continuous) [Blood - Other changes Kidney/Ureter/Bladder - Other changes in urine composition Biochemical - Metabolism (intermediary) - Porphyrin including bile pigments]  
 Oral - Rat TDLo: 790 mg/kg [Reproductive - Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus) Reproductive - Effects on Embryo or Fetus - Fetal death]  
 Oral - Rat TDLo: 1140 mg/kg [Reproductive - Effects on Newborn - Behavioral]  
 Oral - Rat TDLo: 520 mg/kg [Reproductive - Effects on Newborn - Biochemical and metabolic]  
 Oral - Rat TDLo: 1100 mg/kg [Reproductive - Specific Developmental Abnormalities - Blood and lymphatic systems (including spleen and marrow) Reproductive - Effects on Newborn - growth statistics (e.g.,%, reduced weight gain)]  
 Oral - Rat TDLo: 1545 gm/kg [Reproductive - Effects on Newborn - Biochemical and metabolic Reproductive - Effects on Newborn - Behavioral] (RTECS)

**Tetraethyleneglycol Dimethyl Ether:**

**Eye:** Eye - Rabbit Standard Draize test.: 500 mg [mild] (RTECS)

**Ingestion:** Oral - Rat LD50 : 5140 mg/kg [Behavioral - Somnolence (general depressed activity) Gastrointestinal - Other changes Kidney, Ureter, Bladder - Other changes] (RTECS)

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No ecotoxicity data was found for the product.  
**Environmental Fate:** No environmental information found for this product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Waste Disposal:** Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

## SECTION 14 - TRANSPORT INFORMATION

**DOT Shipping Name:** Not Regulated.  
**DOT UN Number:** Not Regulated.  
**IATA Shipping Name:** Not Regulated.  
**IATA UN Number:** Not Regulated.  
  
**IMDG UN Number :** Not Regulated.  
**IMDG Shipping Name :** Not Regulated.  
**ADR UN Number:** Not Regulated.  
**ADR Shipping Name :** Not Regulated.  
**RID UN Number :** Not Regulated.  
**RID Shipping Name :** Not Regulated.  
**ICAO UN Number :** Not Regulated.  
**ICAO Shipping Name:** Not Regulated.

## SECTION 15 - REGULATORY INFORMATION

**Canada WHMIS:** Controlled - Class: D2A Very Toxic  
**Risk Phrases:** R20/22 Harmful by inhalation and if swallowed.  
R33 Danger of cumulative effects.  
R42/43 May cause sensitization by inhalation and skin contact.  
R62 Possible risk of impaired fertility.  
**Safety Phrase:** S1/2 Keep locked up and out of the reach of children.  
S23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).  
S24 Avoid contact with skin.  
S29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
S37/39 Wear suitable gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
S53 Avoid exposure — obtain special instructions before use.

### Hydrogenated Rosin :

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### Lead :

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### Polymerized rosin :

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### Tetraethyleneglycol Dimethyl Ether :

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

### Tin :

**TSCA Inventory Status:** Listed  
**Canada DSL:** Listed

GHS Pictograms:



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## SECTION 16 - ADDITIONAL INFORMATION

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HMIS Health Hazard: 2\*  
HMIS Fire Hazard: 1  
HMIS Reactivity: 0  
MSDS Creation Date: June 12, 2009  
MSDS Revision Date: September 30, 2012

**Disclaimer:** The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this Material Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Material Safety Data Sheet as a source for hazard information.

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