



Manufactured for **CHIPQUIK®**. Products covered:  
 SMDSWLF.020 1OZ SMDSWLF.020 4OZ  
 SMDSWLF.031 1OZ SMDSWLF.031 4OZ  
 SMDSWLF.020 2OZ  
 SMDSWLF.031 2OZ

## Material Safety Data Sheet

### 1. Chemical Product & Company Information

**Product Name:** SAC 305 Rosin Core Solder  
**Product Code:**  
**Product Use/Restriction:** Flux Cored Solder  
**Manufacturer Name:** Canfield Technologies/BOW Electronic Solders  
**Address:** 1 Crossman Road, Sayreville, NJ 08872  
**General Phone Number:** 732-316-2100  
**INFOTRAC** 24 Hour Emergency Telephone Number: 1-800-535-5053  
  
**Website:** www.solders.com  
**MSDS Creation Date** 1-May-14  
**MSDS Revision Date:** 1-May-14

### 2. Composition & Ingredients

Chemical Name	CAS#	Ingredient Percent	EC Number
Gum rosin	8050-09-7.	0-10 by weight	
Proprietary ingredients	Proprietary	1 - 5 by weight	
Copper:	7440-50-8	0-1 by weight	
Silver:	7440-22-4	0-5 by weight	
Tin:	7440-31-5	0-100 by weight	

### 3. Hazard Identification

**Emergency Overview:** Warning! Severe Irritant. Potential Sensitizer. Exposure to soldering fumes and vapors may be irritating to eyes, respiratory system and skin.

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

**Eye:** Smoke during soldering can cause eye irritation  
**Skin:** May cause irritation  
**Inhalation:** Inhalation of vapors, fumes or mist of this product causes severe respiratory system irritation. May cause sensitization by inhalation.  
**Ingestion:** May be harmful if swallowed. May cause vomiting.

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

### 4. First Aid

**Eye Contact:** Immediately flush eyes with water 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 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.

## 5. Firefighting

**Flash Point:** >93°C (>199 °F)

**Upper Flammable/Explosive Limit:** Not applicable.

**Lower Flammable/Explosive Limit:** Not applicable.

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

**Unsuitable Media:** Do not use a solid water stream as it may scatter and spread fire.

**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. Melted solder above 1000 deg F will liberate toxic lead and / or antimony fumes.

**NFPA Ratings**

**NFPA Health:** 2

**NFPA Flammability:** 1

**NFPA Reactivity:** 1

**NFPA Other:**

## 6. Accidental Release Measures

**Personnel Precautions:** Evacuate area and keep unnecessary and unprotected personnel from entering the spill area . Avoid breathing vapor, aerosol or mist. Avoid contact with skin, eyes and clothing.

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

**Methods For Containment:** Melted solder will solidify on cooling and can be scraped up.

**Methods For Cleanup:** Solidified solder can be scraped up upon cooling. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces.

## 7. Handling and Storage

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

**Storage:** No special storage conditions required.

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

## 8. Exposure Controls & Personal Protection

**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 other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

**Eye/Face Protection:** Safety glasses with side-shields.

**Hand Protection Description:** Wear appropriate protective gloves. Consult glove manufacturers data for permeability data.

**Respiratory Protection:** When ventilation is not sufficient to remove fumes from the breathing zone a safety approved respirator or self-contained breathing apparatus should be worn.

**Exposure Guidelines**

Gum Rosin:	Sensitizer: Sen
Copper:	
Guideline ACGIH:	TLV-TWA: 1 mg/m <sup>3</sup>
Guideline OSHA	PEL-TWA :1 mg/m <sup>3</sup>
Silver:	
Guideline ACGIH:	TLV-TWA: 0.1 mg/m <sup>3</sup>
Guideline OSHA	PEL-TWA :0.01 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>

## 9. Physical & Chemical Properties

Physical State Appearance:	Solid
Color:	silver grey
Odor:	Mild chemical
Boiling Point:	Not determined.
Melting Point:	>100 °C (>212°F)
Density:	>7 g/cm <sup>3</sup> (@ 20 °c (68°F))
Flash Point:	>93°C (>199 °F)

## 10. Stability & 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.
Special Decomposition Products:	When heated to soldering temperatures, the solvents are evaporated and rosin may be thermally degraded to liberate aliphatic aldehydes and acids.

## 11. Toxicological Information

Gum rosin:	VL0480000
RTECS Number:	Oral- Mouse LD50: 2.2 mg/kg [Behavioral- somnolence (general depressed activity) cardiac- pulse rate lungs, thorax Respiration- respiratory depression]
Ingestion:	Oral Rat LD50: 3.0 mg/kg[Brian and Coverings- other degenerative changes Liver- other changes Biochemical- Metabolism (Intermediary)-other] (RTECS)
Inhalation:	Inhalation. Rat LC50: 110 mg/m <sup>3</sup> [Behavioral- somnolence (general depressed activity) cardiac- pulse rate lungs, thorax Respiration- respiratory depression](RTECS)
Copper:	
Ingestion:	Oral - MouseLD50:413 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Ingestion:	Oral - Mouse LD50: >5000 mg/kg [ Behavioral- food intake (animal) gastrointestinal Hypermotility, diarrhea Gasrointesinal-nasusea or vomiting] (RTECS)
Silver:	
Ingestion:	Oral- Mouse LD50:100 mg/kg [Details of toxic effects not reported other than lethal dose value.] (RTECS)
Tin:	Appendages - sweating ] (RTECS)
Ingestion:	Oral- Bird duck LDLo: 388 mg/kg- [Autonomic Nervous System - other (direct) parasympathomimetic oral - ataxia Blood - changes in leukocyte (WBC) Count] (RTECS)

## 12. Ecological Information

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

### 13. Disposal Considerations

Waste Disposal: Consult with this 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.

### 14. Transport Information

DOT Shipping Name: Not Regulated  
 DOT UN Number: Not Regulated  
 IATA Shipping Name: Not Regulated  
 IATA UN Number: Not Regulated  
 IMDG Shipping Name: Not Regulated  
 IMDG UN Number: Not Regulated  
 RID Shipping Name: Not Regulated  
 RID UN Number: Not Regulated

### 15. Regulatory Information

Canada Reg. Status: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation and the MSDS contains all of the information required by the the Controlled Products Regulations.

Canada WHMIS: Controlled- Cass: D24 Very Toxic

Tin:  
 TSCA Inventory Status: Listed  
 Canada DSL: Listed  
 TSCA Inventory Status: Listed  
 Canada DSL: Listed  
 Copper:  
 TSCA Inventory Status: Listed  
 Canada DSL: Listed  
 Silver:  
 TSCA Inventory Status: Listed  
 Canada DSL: Listed

### 16. Additional Information

General Use: Solder  
 HMIS Health Hazard: 2  
 HMIS Fire Hazard: 0  
 HMIS Reactivity: 0  
 HMIS Personal Protection: X  
 MSDS Creation Date: 1-May-14  
 MSDS Revision Date: 1-May-14

Disclaimer: The information contained herein is based on data considered accurate and is offered solely is offered solely for information, consideration and investigation. Canfield Technologies, Inc. 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 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 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.