

Material Safety Data Sheet

SOLDER, BLUE

Carolina Biological Supply Company

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Revised 11/19/99

Replaces (None)

Printed 9/01

1. Product Description

Product Name: Solder, 97% Tin/2% Copper/0.8% Antimony/0.2% Silver
Product Code (s): Various
Size: Various
Chemical Name: Product is a mixture
CAS Number: See section 2
Formula: Product is a mixture
Synonyms: N/A
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215
Chemical Emergency Information:
800-227-1150 (8am-5pm [ET] M-F)
Chemtrec (Transportation Spill Response 24 hours):
800-424-9300

2. Composition/Information on Ingredients

Principle Hazardous Components:

Tin (CAS# 7440-31-5)	97%
Copper (CAS# 7440-50-8)	2%
Antimony (CAS# 7440-36-0)	0.8%
Silver (CAS# 7440-22-4)	0.2%

TLV and PEL units:

Tin	ACGIH-TLV	2 mg/m ³ (TWA)
	OSHA-PEL	2 mg/m ³ (TWA)
Copper	ACGIH-TLV	0.2 mg/m ³ (TWA)
	OSHA-PEL	NE
Antimony	ACGIH-TLV	0.5 mg/m ³ (TWA)
	OSHA-PEL	0.5 mg/m ³ (TWA)
Silver	ACGIH-TLV	0.1 mg/m ³ (TWA)
	OSHA-PEL	0.01 mg/m ³ (TWA)

3. Hazardous Identification

Emergency Overview: May cause irritation. During use minimize contact with skin. Avoid contact with eyes. Wash thoroughly after handling. When not in use, keep in tightly closed container.

4. First Aid Measures

Emergency and First Aid Procedures:

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.

Ingestion - If swallowed, if conscious, give plenty of water. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating: Health: 0

Fire: 0

Reactivity: 0

Contact: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Solder may evolve antimony trioxide at elevated temperatures. See Section 11.

6. Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled:

Material may be scraped or picked up once cooled. Containerize material for disposal.

7. Special Precautions

Precautions to be Taken in Handling or Storing: Keep container tightly closed

Other Precautions: Suitable for any general chemical storage area. Store away from sulfur.

8. Special Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. NIOSH approved equipment should be worn if PELs are exceeded.

Ventilation: Local Exhaust: Not necessary

Mechanical (General): Yes

Special: No

Other: No

Protective Gloves: Rubber, neoprene, PVC, or equivalent

Eye Protection: Splash proof chemical safety goggles should be worn at all times

Other Protective Clothing or Equipment: Lab coat, eye wash, and safety shower

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9. Physical Data

Molecular Weight: Product is a mixture

Melting Point: 257 °C

Boiling Point: N/A

Vapor Pressure: N/A

Vapor Density (Air-1): N/A

Specific Gravity (H₂O=1): N/A

Percent Volatile by Volume: N/A

Evaporation Rate (Ether=1): N/A

Solubility in Water: Insoluble

Appearance and Odor: Odorless, silvery-white metal

10. Reactivity Data

Stability: Stable

Conditions to Avoid: None

Incompatibility (Materials to Avoid): Strong acids and bases, sulfur, halogens. Antimony reacts with nascent hydrogen or certain concentrated acids to evolve highly toxic stibine gas.

Hazardous Decomposition Products: Antimony trioxide

Hazardous Polymerization: Will not occur

11. Toxicity Data

Toxicity Data:

For antimony: orl-rat LD50: 7 mg/kg

Effects of Overexposure:

Acute: See section 3

Chronic: Liver and kidney abnormalities or pneumonitis from antimony exposure. Decomposition may yield antimony trioxide, which may pose an increased risk of lung cancer.

Conditions Aggravated by Overexposure: Irritation of upper respiratory tract. Severe irritation or burns to the skin or eyes.

Target Organs: Diseases of the lung, kidney, liver and nervous system.

Primary Route(s) of Entry: Inhalation, eye and skin contact

12. Ecological Data

EPA Waste Numbers: None

13. Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable federal, state and local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

14. Transport Information

Non-regulated

15. Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

SARA Sec. 313

Product or Components	SARA EHS Sec. 302 TPQ	Chemicals Name List	Chemical Category	CERCLA RCRA	
				Sec. 103 RQ lbs.	Sec. 261.33
Tin	No	No	No	No	No
Copper	No	Yes	No	5000	No
Antimony	No	Yes	No	5000	No
Silver	No	Yes	No	1000	No

16. Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Services Abstract Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC International Agency of Research on Cancer

N/A Not Available

NTP National Toxicology Program

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit

ppm parts per million

RCRA Resource Conservation and Recovery Act

SARA Superfund Amendments and Reauthorization Act

TLV Threshold Limit Value

TSCA Toxic Substances Control Act