

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29CFR 1910.1200

Rev. 01/02/03

BISMUTH/TIN (Low Melt Alloys)

DIAMOND LEAD-FREE SOLDER

CANFIELD TECHNOLOGIES, INC.
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SAYREVILLE, NJ 08872

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Infotrac Emergency No. 1-800-535-5053

1. PRODUCT INGREDIENTS

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Weight</u> %	<u>Permissible Air</u> <u>Concen.(mg/cu.m.)</u> <u>OSHA ACGIH</u>	<u>SARA title III</u> <u>Sect.313Chem</u>
BISMUTH	7440-69-9	0-100	NONE ESTABLISHED	NO
TIN	7440-31-5	0-100	2.0 2.0	NO

2. PHYSICAL DATA

Material is SOLID	Appearance and Odor SILVER-WHITE METAL, ODORLESS, VARIOUS SHAPES AND SIZES		
Melting Point 281 F	Boiling Point 3500 F	Specific Gravity 8.2	Vapor Density N/A
Solubility in Water INSOLUBLE	Vapor Pressure N/A	Evaporation Rate N/A	pH N/A

3. FIRE AND EXPLOSION DATA

Flash Point N/A	Flammable Limits N/A	Auto Ignition Temp. N/A
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Unusual fire and explosion Hazards

In extremely high temperature fire or in contact with certain acids-may emit toxic fumes. Use self-contained respiratory system.

Fire extinguishing Agents Recommended

Use CO2 or dry chemical on surrounding fire.

Fire Extinguishing Agents to avoid

Do not use water on fire where molten metal is present.

Special Fire Fighting Precautions

Use NIOSH/MSHA approved self-contained breathing apparatus and full body protective clothing.

NFPA Codes:	Helath	1
	Flammability	0
	Reactivity	0
	Other	0

4. HEALTH HAZARD INFORMATION

Primary Routes of Entry

INGESTION

X INHALATION

ABSORPTION

Carcinogenicity –

This product has not been listed as a suspect carcinogen by NTD, IARC or OSHA.

Acute Overexposure (symptoms and effects)-

Severe short-term overexposure may lead to central nervous system disorders, characterized by drowsiness, seizures, coma and death. It should be recognized that exposures of this magnitude in an industrial environment are extremely unlikely.

Chronic Overexposure (symptoms and effects)-

Prolonged overexposure to molten metal or flux used during soldering operations may cause irritation of the respiratory tract.

Medicals Conditions Possibly Aggravate By Exposure-

The symptoms of impaired pulmonary functions or illness may be worsened by fume irritations.

First Aid procedures-

Inhalation: Removed from exposure and call a physician.

Skin Contact: Wash affected areas with soap and water. If burns should occur from molten metal, treat for burn and get immediate medical assistance.

Eye contact: Flush eyes with water for 15 minutes and call a physician.

Ingestion: Ingest large quantities of water and call a physician.

5. PRECAUTIONS/PROCEDURES

OVERHEATING OF ALLOY CAN PRODUCE METAL FUMES AND OXIDES. MACHINING OPERATIONS SUCH AS GRINDING, SAWING OR BUFFING CAN GENERATE AIRBORNE PARTICULATES IN THE WORK AREA. EXPOSURE LEVELS INDICATED IN SECTION 1 ARE RELEVANT TO THESE AND OTHER OPERATIONS.

Normal Handling:

USE OF APPROVED RESPIRATORS IS REQUIRED FOR APPLICATIONS WHERE ADEQUATE VENTILATION CANNOT BE PROVIDED. ACTIVITIES WHICH GENERATE DUST OR FUME SHOULD BE AVOIDED. WHEN MELTED, THE TEMPERATURE SHOULD BE KEPT AS LOW AS POSSIBLE.

Spill or Leak:

ANY METHOD THAT KEEPS DUST TO A MINIMUM IS ACCEPTABLE. VACUUMING IS PREFERRED. USE OF APPROVED RESPIRATORY PROTECTION WHERE POSSIBILITY OF DUST/FUME EXPOSURE EXISTS. DO NOT USE COMPRESSED AIR FOR CLEANING.

Personal Hygiene:

AVOID INHALATION OF INGESTION. PRACTICE GOOD HOUSEKEEPING AND PERSONAL HYGIENE PROCEDURES.

Engineering Controls:

LOCAL EXHAUST VENTILATION IS RECOMMENDED FOR DUST AND/OR FUME GENERATION OPERATIONS WHERE AIRBORNE EXPOSURES MAY EXCEED PERMISSIBLE AIR CONCENTRATIONS

Storage:

GENERAL STORAGE PROCEDURES ACCEPTABLE.

6. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection

WHERE AIRBORNE EXPOSURES MAY EXCEED OSHA/ACGIH PERMISSIBLE AIR CONCENTRATIONS, THE MINIMUM RESPIRATORY PROTECTION RECOMMENDED IS A NEGATIVE PRESSURE AIR PURIFYING RESPIRATOR WITH CARTRIDGES THAT ARE NIOSH/MSHA APPROVED AGAINST DUST, FUMES AND MISTS HAVING A TWA NOT LESS THAN 0/05 MG/CU M.

Eyes and Face

SAFETY GLASSES RECOMMENDED WHERE THE POSSIBILITY OF GETTING DUST PARTICLES IN EYES EXISTS OR WHEN HANDLING MOLTEN METAL.

Other Clothing and Equipment

GLOVES AND OTHER PROTECTIVE CLOTHING RECOMMENDED IF SKIN CONTACT IS APPRECIABLE.

7. REACTIVITY DATA

Stability: STABLE

Conditions to Avoid: NOT APLICABLE

Incompatibility: AVOID STRONG ACIDS, SULFUR AND CHLORINE

Hazardous Decomposition Products: REACTION WITH STRONG ACIDS CAN PRODUCE TOXIC ORGANIC OR INORGANIC TIN COMPAUNDS.

8. ENVIRONMENTAL

Regulated by DOT? NO

Waste Disposal Method(DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS).

IF HAZARDOUS UNDER 40CFR 261, SUBPARTS B AND C, MATERIAL MUST BE TREATED OR DISPOSED IN A FACILITY MEETING THE REQUIREMENTS OF 40CFR 254 OR 254. IF NON-HAZARDOUS, MATERIAL SHOULD BE DISPOSED IN A FACILITY MEETING THE REQUIREMENTS OF 40CFR 257.

RCRA Status of Unused Material

IF DISCARDED IN UNALTERED FORM, MATERIAL SHOULD BE TESTED TO DETERMINE IF IT MUST BE CLASSIFIED AS A HAZARDOUS WASTE FOR DISPOSAL PURPOSES. UNDER SPECIFIC CIRCUMSTANCES, APPLICATION CAN BE MADE TO THE EPA ADMINISTRATOR TO HAVE A PARTICULAR WASTE DESIGNATED NON-HAZARDOUS.

9. ADDITIONAL INFORMATION

Precautions to be taken in handling and storing: NONE

Other Precautions: NONE

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