

**MATERIAL SAFETY DATA SHEET**

CODE: M/L 122

This Material Safety Data Sheet complies with the U.S. OSHA Hazard Communication Standard 29CFR 1910.1200

PRODUCT: ACTIVATED ROSIN CORE TIN/LEAD WIRE SOLDER**COMMON NAME OR SYNONYMS:** Tin/Lead formulation solders or alloys in the following form: wire core solder**INCLUDES TRADE NAME PRODUCTS:** *BernzOmatic Leaded 60/40, Rosin Core Wire Solder*

NFPA/HMIS HAZARD CODES: HEALTH: 1/1* FIRE: 0/0 REACTIVITY: 0/0 SPECIAL: NA

0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION I**SUPPLIER NAME:** BernzOmatic
One Bernzomatic Drive
Medina, NY 14103
ISSUE DATE: May 2008**INFORMATION PHONE:** 800-654-9011**SECTION II HAZARDOUS INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>PEL</u>	<u>TLV/TWA</u>
Tin	7440-31-5	30-70	2mg/m ³	2mg/m ³
Lead	7439-92-1	30-70	0.05mg/m ³	0.15mg/m ³
Rosin		1-4	0.5mg/m ³	0.5mg/m ³

NOTE: All essential data provided does pertain to the specific chemicals utilized in the formulation of the product.**SECTION III PHYSICAL DATA**

MELTING POINT): Approx. 216°C
BOILING POINT): Not applicable
VAPOR PRESSURE: Not Volatile
VAPOR DENSITY (AIR IS 1): Not Volatile
SOLUBILITY IN WATER: Insoluble
APPEARANCE & COLOR: Silver-Gray Metal in perform and wire form with a rosin core.
ODOR: None
% VOLATILE: NIL
PH: Not applicable
EVAPORATION Rate (nBuAc=1) Not applicable

SECTION IV FIRE & EXPLOSION HAZARD DATA

FLASH POINT: Non-Flammable
FLAMMABLE LIMITS: Not Applicable
EXTINGUISHING MEDIA: No specific agents available
SPECIAL FIRE FIGHTING PROCEDURES: If involved in fire, use full protective clothing and NIOSHA/MSHA approved self-contained breathing apparatus operated in a positive-pressure mode.

NOTE: Solid massive form of material is not combustible under ordinary fire conditions. Fire and explosive hazards are moderate when material is in the form of dust and exposed to heat or flames. Hazards exist also when chemical reactions, or contact with powerful oxidizers.

SECTION V REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: Not Applicable
INCOMPATIBILITY: Strong acids, oxidizers, reducing agents, halogens.
HAZARDOUS DECOMPOSITION PRODUCTS: At temperatures above the melting point metal oxide fumes may be evolved.
HAZARDOUS POLYMERIZATION: Will not occur.

NOTE: Molten Metal may react violently with water.

SECTION VI HEALTH HAZARD DATA

NOTE: Exposure to the solid form of this product presents few health hazards in itself. However, normal handling or processing of this material may result in exposure to product compounds and/or decomposition products, which may present a potential health hazard.

ROUTES OF ENTRY: Dust/fume inhalation; dust ingestion.

SYMPTOMS & EFFECTS OF OVEREXPOSURE:

Chronic (Prolonged) overexposure to **lead** can result in systemic lead poisoning with symptoms of metallic taste, anemia, insomnia, weakness, constipation, abdominal pain, gastrointestinal disorders, joint and muscle pains, and muscular weakness, and may cause damage to the blood forming, nervous, kidneys and reproductive systems. Damage may include reduced fertility in both men and women, damage to the fetus of the exposed pregnant women, anemia, muscular weakness & kidney dysfunction. Chronic (prolonged) overexposure to **tin** can result in benign pneumoconiosis (stannosis). This form of pneumoconiosis produces progressive x-ray changes of the lungs as long as exposure exists, but there is no distinctive fibrosis, no evidence of disability and no special complicating factors.

Acute (severe short-term) overexposure to **lead** may lead to central nervous system disorders, characterized by drowsiness, seizures, coma & death. It should be recognized that exposures of this magnitude in an industrial environment are extremely unlikely. Acute (severe short-term) overexposure to **tin** can cause irritation of the eyes, skin, mucous membranes and respiratory system. Acute overexposure to **tin** can cause irritation of the eyes, skin mucous membranes and respiratory system.

MEDICAL CONDITIONS POSSIBLY

AGGRAVATED BY EXPOSURE: Pre-existing conditions of the lungs, diseases of the blood and blood forming organs, kidneys, nervous and possibly reproductive systems.

CARCINOGENITY: Not listed as a carcinogen by NTP, OSHA, ACGIH; IARC classifies "lead and its compounds" as a Group 2B carcinogen (possibly carcinogenic to humans).

ADDITIONAL INFORMATION: In industrial/commercial processing operations, pre-employment medical evaluations are recommended for large users of this product (required at contaminant exposure levels exceeding the Lead AL- See U.S. OSHA Lead Standard, 29 CFR 1910.1025). Attention should be directed to skin, eyes, respiratory tract, blood, kidneys, pulmonary function and neurological health.

Periodic medical examinations should be repeated on an annual basis for those employees exposed to potentially hazardous levels of this product. Please consult the U.S. OSHA Lead Standard (29 CFR 1910.1025) for specific guidance; periodic medical examinations are required under certain circumstances.

U.S. OSHA Biological Limit for Blood Lead Level is a 3 sample/6 month average of 50 mcg per 100g (or higher) of whole blood and/or two (2) consecutive samples of 60 mcg per 100g (or higher). See U.S. OSHA Lead Standard 29 CFR 1910.1025 for further information.

Lead and its compounds have tentatively been classed by the USEPA Carcinogen Assessment Group as a Group B2 Carcinogen (Probable human carcinogen- a combination of sufficient evidence in animals and inadequate data for humans). IARC lists lead and its compounds as a teratogen.

EMERGENCY & FIRST AID PROCEDURES:

SKIN: Normal hygiene and first aid procedures - wash with soap and water. If irritation develops or persists get medical attention.

EYES: Flush well with running water to remove particulate. If irritation persists obtain medical attention.

ACUTE INHALATION: Remove from exposure. Obtain immediate medical attention. If breathing has stopped, initiate

INGESTION: Artificial Resuscitation.
Give water; induce vomiting only in a conscious non-convulsing individual; obtain immediate medical attention.

CALIFORNIA NOTIFICATION: *WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm).*
NOTICE! This informational warning must be transferred with the product, to all downstream users of this product.

SECTION VII PROTECTION MEASURES

RESPIRATORY PROTECTION: Respiratory protection is required where airborne exposures exceed US-OSHA/ACGIH permissible air concentrations. Respirator selection shall be made in accordance with the US OSHA Respiratory Protection Standard, 29CFR 1910.134.

VENTILATION: Good general dilution ventilation, or ventilation, as described in "Industrial Ventilation, A Manual of Recommended Practice", by the American Conference of Governmental Industrial Hygienists, is recommended to maintain exposure levels below the permissible exposure limits (PEL's) or Threshold Limit Values (TLV's) specified by U.S. OSHA or other local or state regulations.

PROTECTIVE GLOVES: Recommended for prolonged contact/heat. Required above the lead PEL.

EYE PROTECTION: Safety glasses or goggles are recommended where the possibility exists of getting dust particles in the eyes. Safety glasses or goggles with faceshield are recommended around molten metal.

OTHER PROTECTIVE EQUIPMENT: Full protective clothing and shoes are required for employee exposure above the Lead PEL. Other safety equipment should be worn as appropriate for the work environment. Keep work clothing separate from street clothes.

WORK/HYGIENIC PRACTICES: Do not permit eating, drinking, or the use of cosmetics or tobacco products while handling or processing material or in product work areas. Practice good personal hygiene procedures. Wash hands and face thoroughly before eating, drinking, applying cosmetics or using tobacco products. Full protective clothing is required to worn by workers exposed to concentrations of lead/dust fume above the PEL, and showering is required before changing into street clothes. Work clothes and equipment should remain in designated product use areas. Avoid inhalation and ingestion of product, and activities which generate dust or fume. Keep melting/soldering temperatures as low as possible to minimize the generation of fume.

SECTION VIII PRECAUTIONS FOR SAFE HANDLING & USE

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING: Practice good housekeeping procedures to prevent dust accumulations. Keep material dry. Avoid storage near incompatible materials (See Section V). Keep product away from children and their environment, feed products, food products and domestic animals.

OTHER PRECAUTIONS: Special attention is drawn to the requirements of the U.S. OSHA Lead Standard (1910.1025) and Respirator Standard (1910.134) should airborne exposures exceed the U.S. OSHA Action Level (AL) or (PEL). Protect product from inadvertent contamination. Inadvertent contaminants to product such as moisture, ice, snow, grease or oil can cause an explosion when charged to a molten metal bath or melting furnace (Preheating metal will remove moisture from product).

SECTION IX SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES:

1. Material in dust form-minimize exposure. Clean up using dustless methods (i.e. HEPA Vacuum). Do not use compressed air.
2. Place in closed labeled containers for recycling or disposal.
3. Keep out of waterways.

NOTE: Cleanup personnel should wear protective clothing and respiratory protection where dust/fume exposure exists.

OTHER PROCEDURES:
For large product purchasers, or involving large product quantities, we recommend that the purchaser establish a spill prevention, control and counter measure plan. This plan should include procedures for proper storage as well as clean up of spills or leaks. The procedures should conform to safe practices and provide for proper recovery and/or disposal. Depending on the quantity spilled, notification to the U.S. National Response Center (800-424-8802) may be required in case of hazardous substances. (See USEPA and USDOT regulations: also various states and local regulations.)

WASTE DISPOSAL METHODS: May have value on a recycled basis. If disposed of, dispose of in a permitted disposal site in accordance with all federal, state and local disposal or discharge regulations.

SECTION X UNITED STATES SARA TITLE III INFORMATION

This product/mixture contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of title III of the U.S. Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372. The percent by weight of each toxic chemical and its associated chemical abstract system (CAS) number are to found in Section II of this Material Safety Data Sheet.

<u>CHEMICAL NAME</u>	<u>EHS RQ (LBS)</u> *1	<u>EHS TPQ (LBS)</u> *2	<u>SEC.313</u> *3	<u>313 CATEGORY</u> *4	<u>311/312 CATEGORY</u> *5
Lead	Not Applicable	Not Applicable	YES	Lead	H-1, H-2

-FOOTNOTES-

- *1= Reportable quantity of extremely hazardous substance, Section 302.
- *2= Threshold planning quantity, extremely hazardous substance, Section 302.
- *3= Toxic chemical list, Section 313
- *4= Chemical category as required by Section 313 (40 CFR 372.42). Subject to annual release reporting requirements.
- *5= Hazard category for SARA Section 311/312 reporting:

Health	H-1=Immediate (ACUTE) Health Hazard	Physical	P-3= Fire Hazard
	H-2=Delayed (CHRONIC) Health Hazard		P-4= Sudden Release of Pressure Hazard
			P-5= Reactive Hazard

SECTION XI UNITED STATES CERCLA SECTION 103 INFORMATION

This product/mixture contains the following chemicals subject to the release reporting of Section 302.

<u>CHEMICAL NAME</u>	<u>RQ (LBS)</u>
LEAD	10.0 (*1)

-FOOTNOTES-

- *1= Reportable quantity (RQ) under CERCLA Section 302. Spills to the environment exceeding the reportable quantity in any 24-hour period must be reported to the U.S. National Response Center (800) 424-8802. No reporting of releases of the hazardous substance(s) is required if the diameter of the pieces of the solid metal(s) released is equal to or exceeds 100 micrometers (0.004 inches).

SECTION XII TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:	Non-regulated material
TECHNICAL NAME:	NA
HAZARD CLASS:	NA
UN NO.:	NA
PACKING GROUP:	NA
EMERGENCY RESPONSE GUIDE NUMBER:	NA
OTHER:	NA

SECTION XIII ADDITIONAL INFORMATION

UNITED STATES CLEAN WATER ACT NOTICE: The use of this solder in making joints or fittings in any private or public potable water supply system is prohibited by the Clean Water Act.

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