

NATIONAL SOLDER C0

Material Safety Data Sheet

OSHA's Hazard Communication Standard

Pure Tin Cored Wire

Section I:

NATIONAL SOLDER C0
13 ARKIN STR
INDUSTRIES EAST,
GERMISTON 1401

Telephone 011-873-9000

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Section II: Hazardous Ingredients/Identity information

Hazardous Component	CAS #	OSHA TWA	ACGIH TWA	Other limits
Tin	7440-31-5	2mg/M3	2mg/M3	NE
Rosin	8050-09-7			

Only those ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. An ingredient marked with an asterisk (*) is also listed in 29CFR 1910.1200(D) #4 as a known or suspected cancer hazard.

+ denotes a chemical regulated as toxic by the Environmental Protection Agency (EPA) as outlined in 40CFR Part 372 (section 313)

Section III: Physical/Chemical Characteristics

Boiling Point: 4120 F
Vapour Pressure (mm Hg): 1 @ 1492 C
Vapour Density: NE
Solubility in water: Nil
Appearance and odour: Grey solid, odourless

Specific Gravity: 7.30
Melting Point: 232 C
Evaporation Rate (butyl acetate=1): NE

Section IV: Fire and Explosion Hazard Data

Flash Point: Non-flammable
NA
Extinguishing media: Dry chemical
Special fire fighting procedures: Use self contained breathing apparatus
Unusual Fire and Explosion Hazards: High concentrations of dust may be explosive above 1100 F
May release tin and tin oxide fumes.

Flammable limits lel: NA uel:

Section V: Reactivity Data

Stability: STABLE Conditions to avoid: none

Incompatibility (materials to avoid): Turpentine, strong acids, chlorides

Hazardous Decomposition or By-products (incomplete combustion): Tin and tin oxide fumes.

Hazardous Polymerization: WILL NOT OCCOUR Conditions to avoid: none

Section VI: Health Hazard Data

Routes of entry: Inhalation? Yes Skin? No Ingestion? Yes

Health Hazards (acute and chronic): Contact with fumes, dust and material may cause skin, eye and respiratory tract irritation. Ingestion may cause digestive tract irritation.

Gross or repeated inhalation may result in "metal fume fever", symptoms of which may not manifest for several hours after exposure. Chronic exposure via inhalation may result in benign pneumoconiosis, other respiratory tract effects. Chronic inhalation and ingestion may result in kidney effects. Studies show that potential health risks Vary by individual. Always minimize exposure as a precaution.

Carcinogenicity: not determined NTP? No IARC Monographs? No

Signs and symptoms of exposure: Metallic taste in the mouth. Irritation of the respiratory tract, nose and throat, coughing. Inhalation-headache, dizziness, difficulty breathing. Ingestion-nausea, vomiting, cramps. Skin-redness, burning, rash, dryness. Eye-redness, burning, tearing, blurred vision.

Medical Conditions Aggravated by exposure: Respiratory tract conditions.

Emergency first aid procedures:

Skin: Flush with water immediately - Seek medical attention if necessary

Eyes: Flush with water for 15 minutes - Seek medical attention

Ingestion: Drink large amounts of water, induce vomiting if practical-see medical attention.

Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Support respiration if required.

Seek medical attention if required.

Section VII: Precautions for Safe Handling and Use

Steps to be taken if material is released or spilled: Flush into a chemical sewer or soak up with a suitable absorbent.

Waste Disposal Method: dispose of in accordance with all local state and federal regulations

Other Precautions: Avoid skin & eye contact, inhalation & ingestion of fumes and material.

Wash contaminated clothing before reuse. Keep away from children. Do not reuse container.

Section VIII: Control Measures

Respiratory Protection (type): Dust mask for particulates, metal fume type respirator required for fumes.

Ventilation Local Exhaust preferred Special: NE
 Mechanical: OK Other: NE

Protective Gloves: plastic or rubber Eye Protection: Goggles or
face shield

Other Protective Clothing or Equipment: as required to avoid contact.

Work/Hygienic Practices: Wash after use. Follow good industrial hygienic practices.

Section IX: Additional Information

DOT Classification: Non-Hazardous

NFPA Classification (NFPA 325M, 8th edition) (Health, Flammability,
and Reactivity): 1-0-0

Other: NE

Delivery Information

International delivery regulation: LATA- Dangerous Goods Regulation
Not Restricted.

UN code: Not Regulated

Domestic Delivery Regulation: None known

Special delivery method and precaution: None known

Law and Regulation

Conform to regulation; 1. SABS regulation
 2. Identification rules for hazardous and
 harmful materials.
 3. Standards for waste disposal treatment and
 facility requirement.
 4. Road traffic safety rules.

Additional Information

Reference: MSDS database, CCINFO CD 98-2, NIOSH/OSHA, Occupational
Health Guidelines for Chemical Hazards, 1981.

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NE = not established NA = not applicable