

Material Safety Data Sheet

to comply with 29 CFR 1910.1200,
OSHA's Hazard Communication Standard

E-127 Pure Tin Flux & Solder, 16-00

Section I:

Distributed By:	USA & Canada: 800-345-1178
The Easthill Group	Outside USA: 610-323-2200
dba/ The Eastwood Company	Emergency Contact: Chem-Trec 800-424-9300
263 Shoemaker Road	Revised 1/1/2009
Pottstown, PA 19464	

Section II: Hazardous Ingredients/Identity information

Hazardous Component	CAS #	OSHA TWA	ACGIH TWA	Other limits	
Tin	7440-31-5	2mg/M3	2mg/M3	NE	
+ Zinc Chloride	7646-85-7	1mg/M3	1mg/M3	NE	7 %
Ammonium Chloride	12125-02-9	10mg/M3 fume	10mg/M3 fume	NE	
(as Zinc Ammonium Chloride)					

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: 230 F	Specific Gravity: 5.0
Vapor Pressure (mm Hg): NE	Melting Point: NE
Vapor Density: NE	Evaporation Rate
Solubility in water: appreciable	(butyl acetate=1): < 1
Appearance and odor: silver grey paste	odorless

Section IV: Fire and Explosion Hazard Data

Flash Point: NE	Flammable limits lel: NE uel: NE
Extinguishing media: all	
Special fire fighting procedures: use self-contained breathing apparatus	
Unusual Fire and Explosion Hazards: May release Hydrochloric acid, zinc chloride, zinc oxide.	

Section V: Reactivity Data

Stability : STABLE Conditions to avoid : none

Incompatibility (materials to avoid): oxidizers, acids/bases, cyanides, sulfides, turpentine.

Hazardous Decomposition or Byproducts (incomplete Combustion): Hydrochloric acid, ammonia, zinc oxide, zinc chloride.

Hazardous Polymerization: WILL NOT OCCUR 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 material or fumes may cause skin, eye and respiratory tract irritation or burns. Severe fume inhalation can cause "metal fume fever" or pulmonary edema, which may not manifest for several hours after exposure. Ingestion can result in irritation or burning of digestive tract. Gross inhalation or ingestion can result in

death. LD50 (ZnCl₂) (rat)=350mg/kg. May be mutagenic in lab animals. May cause sensitization. Chronic exposures can result in permanent liver, kidney, and respiratory system damage. Studies show that health risks may vary by individual. Minimize exposure as a precaution.

Carcinogenicity: not determined NTP? no IARC Monographs? no

Signs and symptoms of exposure: Inhalation-Nose & throat irritation, headache, dizziness, coughing, difficulty breathing. Ingestion-nausea, vomiting, cramps. Skin-redness, burning, rash, dryness. Eye-redness, burning, tearing, blurred vision.

Medical Conditions Aggravated by exposure: skin and respiratory conditions

Emergency first aid procedures:

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

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

Ingestion: Do Not induce vomiting, give large amounts of water - Seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Support respiration if required - Seek medical attention.

Section VII: Precautions for Safe Handling and Use

Steps to be taken if material is released or spilled: Vacuum, absorb or flush in to a chemical sewer. Do not use any method which will generate dust.

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): Acid type/Metal fume/HEPA respirator for fumes over tlv.

Ventilation: Local Exhaust preferred Special: none

Mechanical: OK Other: NE

Protective Gloves: impervious 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, Reactivity): 1-1-0

Other: NE

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NE = not established NA = not applicable

Form 303.54 Rev.B