MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29CFR 1910.1200

Rev. 01/02/04

ZINC CHLORIDE BASE FLUX

SOLDER-MATE 11

CANFIELD TECHNOLOGIES, INC. 1 CROSSMAN ROAD SAYREVILLE, NJ 08872

Phone No. 732-316-2100

Infotrac Emergency No. 1-800-535-5053

D.O.T. HAZARD CLASS-ZINC CHLORIDE SOLUTION, CLASS 8, CORROSIVE, UN1840, PGIII

1. PRODUCT INGREDIENTS

Weight **Permissible Air SARA Title III Chemical Name** CAS No. <u>%</u> Concen.(mg/cu.m) Sect.313Chem

OSHA ACGIH

17% **Zinc Chloride** 7646-85-7 1.0 YES

No other hazardous material is present in concentration greater than 1%(0.1% for carcinogens).

2. PHYSICAL DATA

Material is **Appearance and Odor**

LIQUID CLEAR LIOUID

Melting Point Boiling Point Specific Gravity Vapor Density

215°F 1.14 N/A N/A

Solubility in Water Vapor Pressure Evaporation Rate РΗ

FULLY SOLUBLE N/A N/A **VARIES WITH DILUTION**

3. FIRE AND EXPLOSION DATA

Flash Point Flammable Limits **Auto Ignition Temp.**

NON-FLAMMABLE N/A N/A

Unusual Fire and Explosion Hazards

MAY RELEASE ZINC OXIDE, ZINC CHLORIDE OR CHLORINE FUMES AND HYDROGEN CHLORIDGE GAS.

Fire Extinguishing Agents Recommended USE CO2 OR DRY CHEMICAL ON SURROUNDING FIRE

Fire Extinguishing Agents to Avoid

N/A

Special Fire Fighting Precautions

USE NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS

0

NFPA RATING 2 0 **HEALTH 2, FLAMMABILITY 0,** 1

REACTIVITY 0, SPECIAL 1

4. HEALTH HAZARD INFORMATION

CORROSIVE – EYE AND SKIN HAZARD

Primary Routes of Entry

INGESTION X INHALATION ABSORPTION

Carcinogencity

THIS PRODUCT HAS NOT BEEN LISTED AS A SUSPECT CARCINOGEN BY NTP, IARC OR OSHA

Exposure(symptoms and effects)

INHALATION OF FUMES MAY CAUSE IRRITATION OR INJURY TO THE RESPIRATORY TRACT. INGESTION MAY CAUSE INJURY TO THE MOUTH AND DIGESTIVE TRACT. PROLONGED SKIN CONTACT WILL CAUSE IRRITATION AND INFLAMMATION. EYE CONTACT MAY RESULT IN DAMAGE TO THE YE MEMBRANE.

First Aid Procedures

INHALATION: MOVE VICTIM TO FRESH AIR. SEEK MEDICAL ASSISTANCE IMMEDIATELY.

SKIN CONTACT: WASH AFFECTED AREAS IMMEDIATETLY WITH SOAP AND WATER. SEEK MEDICAL

ATTENTION IF IRRITATION PRESISTS.

EYE CONTACT: FLUSH EYES WITH WATER FOR 15 MINUTES, CALL A PHYSICIAN.

INGESTION: INGEST LARGE QUANTITIES OF WATER TO DILUTE, DO NOT INDUCE VOMITING. CALL A

PHYSICIAN IMMEDIATELY.

5. PRECAUTIONS/PROCEDURES

EMPTY CONTAINERS MAY CONTAIN RESIDUAL PRODUCT. USE PRECAUTION WHEN DISCARDING.

Spill or Leak

NEUTRALIZE WITH SODIUM BICARBONATE AND FLUSH WITH WATER TO AN APPROVED CHEMICAL SEWER OR CONTAINERIZE FOR PROPER DISPOSAL.

Personal Hygiene

AVOID INHALATION OR INGESTION. PRACTICE GOOD HOUSEKEEPING AND PERSONAL HYGIENE PROCEDURES. A SHOWER IS RECOMMENDED IF SIGNIFICANT DUST EXPOSURE OCCURS.

Engineering Controls

PROVIDE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MEET OSHA LIMITS. IT IS RECOMMENDED THAT A LOCAL EXHAUST BE USED TO REMOVE ZINC FUMES.

Storage

GENERAL STORAGE PROCEDURES ACCEPTABLE.

Special Precautions, Procedures, Label Instruction
MATERIAL IS NOT COMPATIBLE WITH STRONG ALKALIS OR OXIDIZERS, CYANIDES OR SULFIDES.

6. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection

IF FUMES EXCEED MINIMUM OSHA LIMITS, AN APPROVED RESPIRATOR IS RECOMMENDED.

Eyes and Face

SAFETY GLASSES OR GOGGLES ARE REQUIRED.

Other Clothing and Equipment

GLOVES AND OTHER PROTECTIVE CLOTHING RECOMMENDED TO PREVENT SKIN CONTACT.

7. REACTIVITY DATA

Stability: STABLE Conditions To Avoid: NOT APPLICABLE

Incompatibility: STRONG OXIDIZERS MAY CAUSE VIOLENT REACTION.

Hazardous Decomposition Products: ZINC CHLORIDE FUME, HYDROGEN CHLORIDE AMMONIA,

AMMONIUM CHLORIDE FUMES.

8. ENVIRONMENTAL

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 265. 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.

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