

**MATERIAL SAFETY DATA SHEET**

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200 AND SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 PUBLIC LAW 99-499. STANDARD SHOULD BE CONSULTED FOR SPECIFIC REQUIREMENTS.

**SECTION I (IDENTIFICATION)**

<b>MANUFACTURER/ SUPPLIERS NAME:</b>	<b>EUTECTIC CORPORATION</b> N94 W14355 Garwin Mace Drive Menomonee Falls, WI 53051 USA	<b>TELEPHONE NUMBER:</b> 1-800-558-8524
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**PRODUCT NAME:** Eutectic 5106 CFX

**PRODUCT CLASSIFICATION:** Chemical Aid (Flux)

**SECTION II (HAZARDOUS INGREDIENTS/IDENTITY INFORMATION)**

**IMPORTANT:** This section covers the materials from which these products are manufactured. The fumes and gases produced during normal use of these products are covered in Section V. The term "Hazardous" in "Hazardous Ingredients" should not only be interpreted as a term required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200), but also as defined by other regulatory agencies. The chemicals or compounds subject to reporting under Title III, in Section 313, of the Superfund Amendments and Reauthorization Act (SARA) are marked by the symbol #.

**WARNING:** This product contains or produces a chemical known to the State of California to cause birth defects (or other reproductive harm) and cancer. (California Health & Safety Code 25249.5 et seq.)

<u>INGREDIENTS</u>	<u>CAS</u>	<u>Exposure Limit (mg/m<sup>3</sup>)</u>		<u>Percent Ingredients (by weight)</u>
	<u>NUMBER</u>	<u>OSHA PEL</u>	<u>ACGIH-TLV</u>	
Lithium Chloride	7447-41-8	Not Listed	Not Listed	10 – 30
Zinc Chloride #	7646-85-7	1	1	7 – 13
Boric Acid	10043-35-3	Not Listed	Not Listed	7 – 13
Potassium Tetraborate	1332-77-0	Not Listed	Not Listed	7 – 13
Potassium Fluoborate	14075-53-7	2.5 (as F)	2.5 (as F)	7 – 13
Sodium Chloride	7647-14-5	Not Listed	Not Listed	7 – 13
Potassium Chloride	7447-40-7	Not Listed	Not Listed	7 – 13
Water	7732-18-5	Not Listed	Not Listed	5 – 10
Lithium Fluoride	7789-24-4	2.5 (as F)	2.5 (as F)	1 – 5

**SECTION III (POTENTIAL HEALTH EFFECTS AND HEALTH HAZARD DATA)****Target organ statement:**

**DANGER:** Causes severe burns to skin, eyes, and respiratory system. May be fatal if swallowed or inhaled. **WELDING FUMES** (not otherwise specified) are considered to be carcinogenic defined with no further categorization by **NIOSH** and **IARC**.

**SHORT TERM (ACUTE) OVEREXPOSURE TO FLUX:**

**Swallowing** May cause burns of mouth and throat.

**Inhalation** Irritation to respiratory system. Coughing and sneezing. Existing lung disorders will be aggravated. Severe exposure may cause pulmonary edema. Metal fume fever may result from inhaling zinc oxide, which is a possible decomposition product at high temperatures.

**Skin Contact** Dermatitis, possible chemical burns, and corrosive to skin. Existing disorders will be aggravated.

**Eye Contact** Irritation to the eyes, tearing, burn of the eye surfaces, corrosive to the eyes, may cause blindness.

**SHORT TERM (ACUTE) EXPOSURE:** fluoride compounds produced may cause eye and skin burns, and pulmonary edema bronchitis. Exposure to extremely high levels of fluorides can cause abdominal pain, diarrhea, muscular weakness, and convulsions. In extreme cases it can cause loss of consciousness and death.

**LONG TERM (CHRONIC) OVEREXPOSURE: FLUORIDES** - Overexposure to fluorides can cause serious bone erosion, excessive calcification of the bone and calcification of the ribs, pelvis and spinal column. May cause skin rash. Prolonged absorption of **BORON COMPOUNDS** may cause mild gastrointestinal irritation, loss of appetite, nausea, and erythematous rash. Dryness of skin and mucous membranes, loss of hair, conjunctivitis, and kidney injury have also been observed. Reproductive effects have been observed in laboratory animals. Primary route of entry is the respiratory system. **CHLORIDE COMPOUNDS:** (zinc chloride): Overexposure may cause severe irritation or burns of the eyes and skin. Chloride compounds will form strong acids in the presence of water and may give off HCL gas in a fire. Ingestion will cause nausea.

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**SECTION IV ( EMERGENCY AND FIRST AID PROCEDURES)**

- Swallowing:** Call a physician at once or your poison control center. Advise of Section II immediately. May be fatal. Corrosive to mucous membranes.
- Skin:** Promptly flush with water for 15 minutes to remove all residue. If rash or burn develops, consult a physician. Material is corrosive. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.
- Inhalation:** Remove to fresh air. If fumes are inhaled, call a physician.
- Eyes:** Flush with water for at least 15 minutes to remove all residue. Hold eyelids apart during irrigation. **Get immediate medical help!**

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**SECTION V (FIRE AND EXPLOSION DATA)**

- Extinguishing media:** water, fog, or foam
- Special fire fighting procedures:** full protective equipment required. May release zinc oxide, zinc chloride and hydrogen chloride.
- Unusual fire and explosion hazards:** Dense smoke may be generated in a fire.
- Rating under HMIS:** Health, 2; Flammability, 1; Reactivity, 1.

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**SECTION VI (REACTIVITY DATA)**

- Stability consideration:** stable
- Hazardous polymerization:** will not occur
- Conditions to avoid:** none
- Incompatibility: Materials to avoid:** Cyanide - may release toxic HCN      Sulfide - may release toxic hydrogen sulfide
- Hazardous combustion or decompositions products:** zinc oxide.

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**SECTION VII ( SPILL AND LEAK RESPONSE)**

- Steps to be taken if material is released or spilled:** Contain spill, absorb, sweep up and dispose. Flush area to chemical sewer.
- Waste disposal method:** Dispose of in accordance with all federal state, and local regulations.

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**SECTION VIII ( SPECIAL PROTECTION INFORMATION)**

- Respiratory protection:** If the workstation is not properly ventilated to exhaust all fumes and vapors, use a NIOSH approved mask.
- Ventilation:** Maintain airflow away from the user to remove all fumes and vapors, so that the PEL is never exceeded. Adhere to environmental regulations for exhausts.
- Protective gloves:** Rubber gloves.
- Eye protection:** Chemical safety goggles.
- Other protective equipment:** Full protective equipment normally used in soldering operation so as to prevent any contact. Review operations to avoid contact with hazardous gas, liquid, or solid. See also:  
29CFR 1910.132 - 29 CFR 1910.140 Personal Protective Equipment  
29 CFR 1910.251 - 29 CFR 1910.257 Welding, Cutting and Brazing

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**SECTION IX (STORAGE, HANDLING AND SPECIAL PRECAUTIONS)**

- Precautions to be taken in handling and storage:** Store at ambient conditions. Wash thoroughly after handling to remove all residue.
- Other precautions:** Do NOT breathe fumes. Professionally wash contaminated clothing before reuse. Existing lung disorders will have increased toxic susceptibility. Keep this product away from children.

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**SECTION X (PHYSICAL PROPERTIES)****Flux**

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**SECTION XI (OPTIONAL INFORMATION)**

IARC: International Agency for the Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
NIOSH: National Institute for Occupational Safety and Health  
NTP: National Toxicology Program  
PEL: Permissible Exposure Limit  
OSHA: U.S. Occupational Safety and Health Administration  
TLV: Threshold Limit Value  
CAS: Chemical Abstracts Service Registry Number

Exposure limits are subject to change. Contact ACGIH, OSHA, NIOSH, and IARC for current values.

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