



Material Safety Data Sheet # 388

Hercules Chemical Company Inc.
111 South Street
Passaic NJ 07055-7398
Information Telephone: 1-800 221-9330
Internet: www.herchem.com

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"><tr><td>HEALTH</td><td>2</td></tr><tr><td>FLAMMABILITY</td><td>0</td></tr><tr><td>REACTIVITY</td><td>1</td></tr></table>	HEALTH	2	FLAMMABILITY	0	REACTIVITY	1		
HEALTH	2								
FLAMMABILITY	0								
REACTIVITY	1								

Preparation Date April 20, 2011

Revision Date April 20, 2011

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: HERCULES Jel-Flux

Intended Use: Soldering Flux

Manufacturer: Hercules Chemical Company, Inc.
111 South Street
Passaic, New Jersey 07055-7398

Information Telephone: (800) 221-9330

Internet: <http://www.herchem.com>

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation 04/11/2011

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Danger: May burn eyes or internal tissue. Harmful if swallowed.
Ingestion of this product could cause severe damage to internal organs.
Skin and eye contact should be avoided.

Potential Health Effects.

Individuals with pre-existing diseases of lungs may have increased susceptibility to the toxicity of excessive exposure to zinc chloride.

Inhalation: Not applicable

Ingestion: Severe damage to internal organs (esophagus and pylorus) if swallowed in large quantity.

Eye: Will cause eye irritation with discomfort, tearing or blurring of vision.

Skin: Prolonged contact causes burns, skin irritation with discomfort with rash.

HMIS Hazard Rating: 2 0 1 C

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Wt/Wt %
Zinc Chloride	7646-85-7	10-30
Ammonium Chloride	12125-02-9	1-5
Propylene Glycol	57-55-6	7-13
Water	7732-18-5	30-70
Other Non Hazardous	N/A	1-5

4. EMERGENCY AND FIRST AID PROCEDURES.

Eye: Flush eyes with water for 15 minutes, lifting eye lids occasionally. Get medical attention if condition worsens or if irritation persists.

Skin: Wash affected area with soap and water. Remove contaminated clothing. If burn or rash appears consult a physician.

Ingestion: Treat symptomatically. Do not induce vomiting. If conscious, dilute by giving large quantities of water or milk. Call a physician immediately.

Inhalation: Not Applicable

Note: Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flashpoint: N/A

Boiling Point: 212°F

Flammable Limits: N/A

Extinguishing Media: Carbon dioxide (CO₂), foam or dry chemical

Unusual Fire or Explosion Hazards: None

Special Fire-Fighting Instructions: None

Hazardous Combustion Products: Will not occur except at high temperature

6. ACCIDENTAL RELEASE MEASURES**Spills/Leak Control:**

For Large spills, contain and absorb with non-flammable absorbent material such as vermiculite. Pick up with a shovel and place in a suitable container for proper disposal. Wash contaminated area thoroughly with soap and water. Prevent material from entering surface water, or sewer drains

7. HANDLING AND STORAGE

Handling: Keep containers tightly closed. If handling large quantities, wear rubber gloves and safety glasses.

Storage: Store in original containers in a dry and cool place. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	CAS Number	OSHA PEL	ACGIH TLV	Other Limits	Upper bound limit if SARA Reportable
Zinc Chloride	7646-85-7	1.0 mg/m ³ fume	1.0 mg/m ³ fume	N/A	5%
Ammonium Chloride	12125-02-9	10 mg/m ³ fume	10 mg/m ³ fume	N/A	

Respiratory Protection: Required when using this product in confined spaces or other circumstances where adequate ventilation cannot be assured, use NIOSH-Approved respirator.

Engineering Controls: Use with adequate ventilation.

Skin Protection: Wear rubber gloves

Eye Protection: Wear safety glasses if there is potential for eye contact.

General Hygiene: Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Greenish yellow (Jel) paste with no odor	Boiling Point: 212°F
Physical State: Paste	Vapor Pressure: N/A
Vapor Density: >1	Evaporation Rate: (Butyl Acetate=1) <1
Solubility In Water: 100% soluble	Volatile Components: 0 g/L
Specific Gravity: 1.25	
Melting Point: N/A	

10. STABILITY AND REACTIVITY

Stability: Stable.

Conditions to avoid: Avoid contact with concentrated alkalis.

Incompatibility: Zinc Chloride is incompatible with cyanide. (May release toxic HCN gas) and sulfide salts (may release toxic H₂S gas)

Hazardous Decomposition Products: None **Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Values:

Zinc Chloride CAS # 7646-85-7; Oral LD₅₀ 350 mg/kg (rat),

Ammonium Chloride CAS # 12125-02-9; Oral rat LD₅₀: 1650 mg/Kg

HEALTH HAZARDS:

Individuals with pre-existing diseases of lung may have increased susceptibility to the toxicity of excessive exposure to Zinc Chloride.

Sensitization: None.

Chronic: yes

Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA

Mutagenicity: Not mutagenic.

Medical Conditions Aggravated by Exposure: None

Reproductive Toxicity: None

12. ECOLOGICAL INFORMATION

Environmental Toxicity: None expected

Environmental Transport: Unknown.

Environmental Degradation: N/A

Environmental Absorption/Mobility: Unknown

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State, and Local regulations.

14. TRANSPORT INFORMATION

Not Regulated for Transportation by DOT or IMDG or IATA.

15. REGULATORY INFORMATION**EPA Regulation:****TITLE 311/312 Hazard Classification**

ACUTE: Yes

CHRONIC: N/A

FIRE: No, REACTIVITY: No, PRESSURE: No

Extremely Hazardous substance: No

SARA Title 313

This product contains a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. Zinc Chloride CAS # 7646-85-7

California Proposition 65: This product does not contain any chemicals known to State of California to cause cancer, birth defect, or any other reproductive defects.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania
Zinc Chloride Cas# 7646-85-7	x	x	x
Ammonium Chloride Cas #12125-02-9	x	x	x
Propylene Glycol Cas # 57-55-6		x	x

TSCA Inventory: All the components in this product are listed on the TSCA inventory.

Canada DSL: Listed.

WHMIS Hazard Class. D2B This MSDS has been prepared according to the hazard criteria of the controlled Products regulation (CPR). And the MSDS contains all of the information required by the CPR

16. OTHER INFORMATION**DISCLAIMER:**

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Hercules cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.