MATERIAL SAFETY DATA SHEET RUBYFLUID

DATE REVISED: January 1, 2014

Product Name: Rubyfluid

Manufacturer: Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland, OH 44139

Emergency Phone Number: 1-800-424-9300 (CHEMTREC)

Other Information Calls: (440) 349-3000

To the Purchaser: This MSDS contains important environmental, health, and toxicology information for your employees who have ordered this product. Please be sure this information is given to them. If you resell this product, a copy of the MSDS should be given to the buyer.

H.M.I.S. INFORMATION: HEALTH =2 FLAMMABILITY = 0 REACTIVITY = 1

SECTION I - IDENTIFICATION

Common Name: Rubyfluid Chemical Family: Soldering Flux

CAS Number: NA Chemical Name: NA Formula: See Below

SECTION II - COMPOSITION INFORMATION

ComponentsCAS Number%OSHA PELZinc Chloride7646-85-730-451 mg/m³

Unlisted percentages are non-hazardous stabilizers, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

SECTION III - HEALTH HAZARDS

Primary Routes of Entry: Fume inhalation, ingestion, skin, and eyes.

Symptoms of Overexposure: Pulmonary edema, abdominal pain, vomiting, eye damage and skin burn.

Medical Conditions Generally Aggravated by Overexposure: None presently known.

Chemical Listed as a Carcinogen or Potential Carcinogen: None

OSHA Permissible Exposure Limit (PEL): 1 mg/m³ **ACGIH Threshold Limit Value (TLV):** 1 mg/m³

SECTION IV - EMERGENCY AND FIRST AID PROCEDURES

Eyes: Flush with copious amounts of water for 15 minutes. Call a physician.

Skin: Wash thoroughly with soap and water.

Inhalation: Remove to fresh air or administer oxygen. Call physician.

Ingestion: Do NOT induce vomiting. If person is conscious give water or milk. Get medical

attention.

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: NA

Flammable Limits: NA

Extinguishing Media: Dry chemical, CO₂ foam.

Auto Ignition Temperature: None

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: None.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Spilled: First neutralize with soda ash or sodium bicarbonate, dilute with water and dispose of in accordance with EPA regulations.

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in plastic containers in cool area, away from heat. Do not allow this product to freeze.

Handling Precautions: Safe precautionary practices to avoid spills and exposure to skin and fumes.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH approved respirator.

Ventilation: Yes

Mechanical (General): Yes

Local Exhaust: Yes

Protective Gloves: Recommended, NIOSH approved

Other Protective Clothing or Equipment: Rubber apron is recommended

Eve Protection: Chemical splash goggles and face shield in accordance with OSHA.

Regulatory Information: The chemical components are listed on TSCA and DSL inventory. See

composition section ii for CAS numbers.

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: 107°C/225°F

Specific Gravity (Water = 1): 1.32

Vapor Pressure (mm Hg): <18 mm Hg @ 20°C

Percent Volatile by Volume: 73.5%

Evaporation Rate (Butyl Acetate = 1): <1

Freezing Point: <30°F

Solubility in Water: Unlimited

pH: $4-5 @ 20-25 ^{\circ}C$

Appearance and Odor: Red-colored liquid, no characteristic odor.

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable (Conditions to Avoid): NA

Incompatibility: Avoid contact with cyanides (toxic HCN gas may result and sulfide salts (toxic H2S

may result.

Hazardous Decomposition Products: None known.

Hazardous Polymerization: Will not occur (Conditions to Avoid): NA

SECTION XI - TOXICOLOGICAL INFORMATION

Acute Toxicity Data

1) Oral: LD-50 (rat): Not available

2) Inhalation: LC-50 (rat): Not available
3) Dermal: LD-50 (rabbit): Not available
4) Skin Irritation: (rabbit): Not available

Chronic Toxicity Data

1) Repeated Skin Application: (rat): Not available

2) Eye Irritation: (rabbit): Not available

SECTION XII - ECOLOGICAL INFORMATION

This Material has not been Tested for Environmental Effects.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with EPA regulations

SECTION XIV-TRANSPORTATION

D.O.T. Proper Shipping Name: Zinc Chloride Solution (Contains Zinc Chloride)

Hazard Class: 8

Identification Number: UN1840

Packing Group: III

Type D.O.T Label Required Information: Corrosive

Ground USA: (1-gallon and smaller)

Classified as **ORM-D.** Refer to USA CFR 49 Regulations.

Recommended Shipper be trained and certified.

Ground Canada: (1-gallon and smaller) Classified as **Consumer Commodity**.

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations).

Recommended Shipper be trained and certified.

SECTION XV - REGULATORY INFORMATION

OSHA Hazardous Chemical According to 29 CFR 1910.1200: None

Carcinogenicity Classification (Components Present at 0.1% or More): Non-Carcinogenic

International Agency for Research on Cancer (IARC): Not listed

American Conference of Governmental Industrial Hygienists (ACGIH): Not listed

National Toxicology Program (NTP): Not listed

Occupational Safety and Health Administration (OSHA): Not listed

None of the components of this product are listed on the U.S. toxic substances control act. Inventory or otherwise comply with TSCA premanufacture notification requirements. This Product is RoHS Compliant.

SECTION XVI - OTHER INFORMATION

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