

MATERIAL SAFETY DATA SHEET

RUBY STAINLESS STEEL FLUX

DATE REVISED: January 1, 2014

Product Name: Ruby Stainless Steel Flux

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
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SECTION I - IDENTIFICATION

Common Name: Ruby Stainless Steel Flux

Chemical Family: Stainless Steel Soldering Flux

CAS Number: NA

Chemical Name: NA

Formula: See Below

SECTION II - COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL
Ethylene Glycol	107-21-1	20-50	NA
Hydrochloric Acid	7647-01-0	20-50	5 mg/m ³
Zinc Chloride	7646-85-7	10-30	1 mg/m ³

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, skin and/or eye contact.

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 immediately.

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: NA
Flammable Limits: NA
Extinguishing Media: Use suitable agent for surrounding fire.
Auto Ignition Temperature: None
Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: When exposed to fire will release zinc oxide fumes, zinc chloride fumes, and hydrogen gas.

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: Use 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
Eye Protection: Chemical splash goggles and face shield in accordance with OSHA regulations.
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: 116°C/241°F

Specific Gravity (Water = 1): 1.19

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

Percent Volatile: 80%

pH: 0 – 2 @ 20 -25 °C

Evaporation Rate (Butyl Acetate = 1) : >1

Freezing Point: <32°F

Solubility in Water: Unlimited

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 between this product and cyanides (toxic HCN gas may result) and sulfide salts (toxic H₂S may result).

Hazardous Decomposition Products: Zinc oxide fumes, zinc chloride fumes, and hydrogen gas.

Hazardous Polymerization: Will not occur

(Conditions to Avoid): Excessive heat

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
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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: Corrosive Liquid, Acidic, Inorganic, N.O.S.

(Contains Zinc Chloride, Hydrochloric Acid)

Hazard Class: 8

Identification Number: UN3264

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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