

# SAFETY DATA SHEET

## SUPERIOR NO. 155

DATE REVISED: January 1, 2017

**Product Name:** Superior No. 155

**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 = 3      REACTIVITY = 0**

### SECTION I - IDENTIFICATION

**Common Name:** Superior No. 155

**Chemical Family:** Solvent Based Battery Fabrication Flux

**CAS Number:** NA

**Chemical Name:** NA

**Formula:** See below

### SECTION II – HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

**Classification (CLP):** Corrosive

**Label Elements (CLP):** No Data Available



Irritant

Flammable

Corrosive

**Precautionary Statements:** P234, P260, P261, P264, P271, P280, P303+P361+P353, P310, P305+P351+P338, P390, P363, P301+P330+P331, P304+P340

**Risk Phrases:** R20/21/22, R34, R37

**Safety Phrases:** S26, S36/37/39, S45

See section XVI for full text description of S and R phrases

**Other Hazards:** None if used properly

### SECTION III- COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL	H Phrases
Hydrobromic Acid	10035-10-6	20-30	3 mg/m <sup>3</sup>	H314, H335, H290
Monoethanolamine	141-43-5	4-8	3 mg/m <sup>3</sup>	H314, H335, H227 H312, H332, H302
Phosphoric Acid	7665-38-2	4-8	NA	H302, H313, H314, H330
Isobutanol	78-33-13	8-48	50PPM	H226, H319, H335, H336

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

## SECTION IV- HEALTH HAZARDS

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

**Signs and Symptoms of Exposure:**

- 1) **Acute Effects:** Reddening of eyes and skin, acid stomach if ingested, inhalation may cause respiratory tract irritation.
- 2) **Chronic Effects:** No specific information available

**Medical Conditions Generally Aggravated by Overexposure:** None presently known.

**Chemical Listed as a Carcinogen or Potential Carcinogen:** None

**OSHA Permissible Exposure Limit (PEL):** 5 mg/m<sup>3</sup>

**ACGIH Threshold Limit Value (TLV):** 5 mg/m<sup>3</sup>

## EMERGENCY AND FIRST AID PROCEDURES

**Eyes:** Flush with water for 10 minutes. Call a physician.

**Skin:** Wash thoroughly with water.

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

**Ingestion:** If patient is fully conscious, give two glasses of water. Obtain medical attention immediately.

---

## SECTION V - FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** 295°C

**Flammable Limits:** Lower 2, Upper 12.7

**Extinguishing Media:** Water, CO<sub>2</sub>, dry chemical

**Auto Ignition Temperature:** None

**Unusual Fire and Explosion Hazards:** Will release small amounts of HBr.

**Special Fire Fighting Procedures:** Flammable liquid and vapors may travel great distances to ignition source and flash back

---

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Spilled:** Soak up with absorbent, eliminate source of ignition. Remove residue with detergent and water.

---

## SECTION VII - HANDLING AND STORAGE

**Storage Requirements:** Store in a cool dry place. Keep container closed when not in use. Handle as a flammable/corrosive liquid.

**Handling Requirements:** Safe precautionary use to prevent spills and exposure to skin or fumes.

Other Precautions: None

---

## SECTION VIII - CONTROL MEASURES

**Respiratory Protection (TYPE):** NIOSH approved respirator.

**Ventilation:** Yes

**Mechanical (General):** Explosion proof

**Local Exhaust:** Yes

**Protective Gloves:** Recommended, NIOSH approved

**Other Protective Clothing or Equipment:** Rubber apron is recommended.

**Eye Protection:** Safety Glasses

**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:** 465°F

**Specific Gravity (Water = 1):** 1.05

**Vapor Pressure (mmHg) :** <0.05mmHg @ 25°C

**Percent Volatile By Volume:** 92%

**Vapor Density (Air = 1):** NA

**Evaporation Rate (Butyl acetate = 1) :** >2

**Melting Point:** N/A

**Solubility in Water:** Complete

**Reactivity in Water:** None

**Appearance and Odor:** Clear light red, alcoholic odor

---

## SECTION X - STABILITY AND REACTIVITY

**Stability:** Product is Stable

**Conditions to Avoid:** None

**Hazardous Polymerization:** None

**Conditions to Avoid:** Extreme Heat

**Incompatibility:** Oxidizing Agents and Metals.

**Hazardous Decomposition Products:** Hydrobromides, Nitrogen Products, CO, CO<sub>2</sub>

---

## 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:** Flammable Liquid, Corrosive, NOS (Contains Isobutanol, Tetrahydrofurfuryl Alcohol, Hydrobromic Acid, Phosphoric Acid))

**Hazard Class:** 3, 8

**Identification Number:** UN2924

**Packing Group:** II

**Type D.O.T Label Required Information:** Flammable Liquid

---

## 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 Pre-manufacture Notification Requirements. This Product is RoHS Compliant.**

---

## SECTION XVI - OTHER INFORMATION

The labeling of this product is indicated in Section II. The full text of all abbreviations indicated by codes in the MSDS are as follows:

- |            |  |
|------------|--|
| R20/21/22  | Harmful by inhalation, in contact with skin, and if swallowed                        |
| R34        | Causes Burns   |
| R37        | Irritating to respiratory system   |
| S-26       | In case of contact with eyes rinse immediately with water and seek medical attention |
| S-36/37/39 | Wear suitable protective clothing, gloves, and eye/face protection                   |
| H314:      | Causes severe skin burns and eye damage  |
| H335:      | May cause respiratory irritation   |
| H290:      | May be corrosive to metals   |
| H227       | Combustible liquid.  |
| H312       | Harmful in contact with skin.  |
| H332       | Harmful if inhaled.  |
| H302       | Harmful if swallowed.  |
| P234:      | Keep only in original container.   |
| P260:      | Do not breathe dust/fume/gas/mist/vapours/spray.                                     |
| P261       | Avoid breathing dust/fumes/gas/mist/vapours/spray                                    |
| P264:      | Wash thoroughly after handling.  |
| P271:      | Use only outdoors or in a well-ventilated area.                                      |
| P280:      | Wear protective gloves/protective clothing/eye protection/face protection.           |

P301 + P330 + P331:IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340:IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338:IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage

**Disclaimer:** Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this material, but there are NO WARRANTIES, NO REPRESENTATIONS AND NO RESPONSIBILITY AS TO THE ACCURACY OR THE SUITABILITY OF THIS INFORMATION FOR ANY PURCHASER'S USE OR FOR ANY CONSEQUENCE TO USE.

---