

# SAFETY DATA SHEET

## SUPERIOR NO. 48

DATE REVISED: January 1, 2018

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### SECTION 1 -- IDENTIFICATION

**Product Name/Part number:** Superior No. 48

**Recommended use:** Organic Acid Halide Flux

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

**Emergency Contact:** CHEMTREC  
**Emergency Phone:** 1-800-424-9300  
**For other info:** (440) 349-3000

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### SECTION 2 – HAZARD(S) IDENTIFICATION

**Classification of the substance or mixture**

**GHS Classification in accordance with OSHA HCS (29 CFR 1910)**

Flammable liquids (Category 2)	H225
Corrosive to metals (Category 1)	H290
Acute toxicity, Oral (Category 3)	H301
Acute toxicity, Dermal (Category 3)	H311
Skin corrosion (Category 1)	H314
Serious eye damage (Category 1)	H318
Acute toxicity, Inhalation (Category 3)	H331
Acute oral toxicity (Category 3)	H335

*See below for full text of H-Statement*

**GHS Label Elements, including precautionary statements**

**Pictogram(s):**



**Signal Word:** Danger

**Hazard Statement(s)**

H225	Highly flammable liquid and vapour
H290	May be corrosive to metals
H301	Toxic if swallowed
H311	Toxic if in contact with skin
H314	Causes severe skin burns and eye damage
**H318	Causes serious eye damage
H331	Causes damage to organs
H335	May cause respiratory irritation

\*\*May be omitted from label due to presence of stricter statement.

**Precautionary statement(s)**

P210	Keep away from heat, sparks, open flames, or hot surfaces. No smoking.
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Do not breathe mist, fumes, vapors, or spray
P264	Wash any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product

P271 Use only outdoors or in a well-ventilated area  
P280 Wear protective gloves, eye protection, and face protection  
P301+P310+P330+P331 IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor  
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.  
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician  
P362 Take off and wash contaminated clothing before reuse  
P370+P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish  
P403+P223+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
P405 Store locked up  
P501 Dispose of contents and/or container to an approved waste disposal plant  
**Hazards not otherwise classified or not covered by GHS: None**

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### SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Methanol	67-56-1	8-15
Glutamic acid-HCl	15767-75-6	3-9
Ammonium bifluoride	1341-49-7	0.1-3

Unlisted percentages are non-hazardous stabilizers, and water.

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## SECTION 4 – FIRST AID MEASURES

### Description of first aid measures

- General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- Inhalation:** If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
- Eyes:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contacts if present and easy to do so. Continue rinsing eyes during transport to hospital.
- Skin:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Most Important Symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2 (labeling)

**Medical Conditions Generally Aggravated by Exposure:** Any weakness of the lungs, kidneys or liver will be aggravated.

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## SECTION 5 – FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Dry sand, alcohol-resistant foam

**Special Hazards:** Will release small amounts of hydrofluoric acid

**Special protective actions for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment and emergency procedures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. *See section 8 for personal protection.*

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so.

**In Case Material is spilled:** First, neutralize with soda ash or sodium bicarbonate. Dilute with water and place in container for disposal according to local regulations.

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## SECTION 7 - HANDLING AND STORAGE

**Precautions for safe handling:** Avoid inhalation of vapor, fumes, or mist. Keep closed in a dry and well-ventilated place. Keep cool.

**General Precautions:** Do not eat, drink, or smoke while using this product. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

*For full precaution statements see Section 2*

**Storage Requirements:** Store in plastic containers in cool area. Keep container away from excessive heat.

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## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### CONTROL PARAMETERS

**OSHA Permissible Exposure Limit (PEL):** 2.5 mg/m<sup>3</sup>

**ACGIH Threshold Limit Value (TLV):** 2.5 mg/m<sup>3</sup>

**Engineering Controls:** Use local exhaust ventilation to maintain air concentrations of vapors and fumes below occupational exposure standards.

**Special Engineering Control Needs:** Non-sparking

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate, use a respirator with multi-purpose combination (USA) or ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

**Protective Gloves:** Handle with gloves. (Nitrile Rubber recommended) Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

**Eye Protection:** Use appropriately fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

**Body Protection:** Chemical resistant rubber apron. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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## SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Appearance</b>	Clear to slightly hazy liquid
<b>Odor</b>	Alcohol
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/Freezing point</b>	-97.8°C/-144°F
<b>Initial boiling point and boiling range</b>	64.7°C/148.5°F
<b>Flash point</b>	Not applicable
<b>Evaporation rate (Butyl Acetate = 1)</b>	2.4
<b>Flammability (Solid, gas)</b>	Not applicable
<b>Upper flammability or explosive limits</b>	Upper explosion limit: No data available
<b>Lower flammability or explosive limits</b>	Lower explosion limit: No data available
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	1.105
<b>Relative density (Water = 1)</b>	0.895
<b>Solubility(ies)</b>	Miscible in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	Not applicable

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## SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** No data available

**Stability:** Product is stable under recommended storage conditions

**Possibility of hazardous reactions:** No data available

**Conditions to Avoid:** Excessive heat or cold, metals, strong oxidizers

**Incompatibility:** No data available

**Hazardous Decomposition Products** Small amounts of hydrofluoric acid, carbon oxides(Under fire conditions)

*In the event of fire: See Section 5*

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## SECTION 11 - TOXICOLOGICAL INFORMATION

**Likely Route(s) of Exposure:** Inhalation, ingestion, skin and eye contact

**Symptoms (Immediate and Chronic) from**

**Acute Exposure** No data available

**Prolonged or Repeated Exposure** No data available

**Measure(s) of toxicity**

No data available

**IARC:** No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP:** No component of this product is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

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## SECTION 12 - ECOLOGICAL INFORMATION

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**Other adverse effects**

*An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.*

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## SECTION 13 - DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Product** Offer surplus and non-recyclable solutions to a licensed disposal company.  
Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging** Dispose of as unused product.

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## SECTION 14- TRANSPORTATION

**D.O.T. (USA) / IATA / IMDG**

**Proper Shipping Name:** Methanol

**Identification Number:** UN1230

**Packing Group:** II

**Special Precautions to Note:**

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

**Hazard Class(es):** 3

**Reportable Quantity (RQ):** 5,000

**Environmental Hazards:** N/A

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## SECTION 15 - REGULATORY INFORMATION

**SARA 302 Components** No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.

**SARA 313 Components** No chemicals in this material are subject to the reporting requirement of SARA Title III, Section 313.

**SARA 311/312 Hazards** Acute Health Hazard

### **California Prop. 65 Components**

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

**THIS PRODUCT IS ROHS 2 COMPLIANT**

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## SECTION 16 - OTHER INFORMATION

### **Further information:**

Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

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### **Preparation information**

Superior Flux & Mfg. Co.  
440-349-3000

Version 2.0

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