



SECTION 1 - IDENTIFICATION

Table with 2 columns: Manufacturer information (Black Swan Mfg. Co., 4540 W. Thomas St., Chicago, IL 60651-3318, Tel.: 800-252-5796, Fax: 773-227-3705, Web Site: www.blackswanmfg.com, E-mail: info@blackswanmfg.com) and For any Transportation or Medical Chemical Emergencies call: INFOTRAC (800) 535-5053 OR (352) 323-3500, 24 hours per day - 7 days a week. Product Name: Super-Flux. Recommended Use: To prepare copper tubing and fittings for soldering.

SECTION 2 - HAZARD(S) IDENTIFICATION

Table with 2 columns: Labels (Health Hazard, Irritant), Signal Word (Warning), HMIS (HEALTH 3, FLAMMABILITY 1, REACTIVITY 0), NFPA (HEALTH HAZARD 3, FIRE HAZARD 1, REACTIVITY 0), GHS Classification (Health: Acute Toxicity: Not Established, Skin Irritation: Cat. 1, Eye Irritation: Cat. 2A, Skin Sensitization: Yes; Environmental: Acute Aquatic Toxicity: Not Established, Chronic Aquatic Toxicity: Not Established; Physical: Flammability: Not Established), Hazardous Statements (H302: Harmful if swallowed, H315: Causes skin irritation, H319: Causes serious eye irritation), and Precautionary Statements (P102: Keep out of reach of children, P262: Do not get in eyes, on skin, or on clothing, P264: Wash thoroughly after handling, P281: Use personal protective equipment as required).

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Table with 5 columns: Hazardous Chemicals, CAS#, EINECS#, REACH Pre-registration Number, and Approx %. Rows include NONYLPHENOXYPOLY (ETHYLENEOXY) ETHANOL, HYDROBROMIC ACID, 2,2'-IMINODIETHANOL, and ETHYLAMINE. All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

SECTION 4 - FIRST-AID MEASURES

Inhalation: Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing becomes irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Skin: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. May cause sensitization by skin contact. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Eyes: Get medical attention immediately. Chemical burns must be treated promptly by physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Provide a readily accessible eyewash facility and quick-drench safety shower. Ingestion: Get medical attention immediately. Chemical burns must be treated promptly by a physician. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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## SECTION 5 – FIRE-FIGHTING MEASURES

**Fire Hazard:** Acidic / Corrosive fumes  
**Combustion Products:** None known  
**Extinguishing Media:** Any extinguishing media  
**Unsuitable Extinguishing Media:** N/A  
**Protective Equipment:** Self-contained breathing apparatus {(SCBA), MSHA/NIOSH}. Full protective gear.  
**Special Fire Fighting Procedures:** Promptly isolate the scene by removing all persons from vicinity if there is a fire.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Do not touch or walk through spilled material. Provide adequate ventilation. Put on appropriate personal protective equipment.  
**Protective Equipment:** Use appropriate mask or self-contained breathing apparatus.  
**Emergency Procedures:** Remove all sources of ignition and ventilate area. For leaks, stop leak if it can be done safely. Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.  
**Environmental Precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).  
**Methods for Cleaning Up:** Small Spill-Stop leak if not risky. Move containers from spill area. Dilute with water and map up if water soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Large Spill-Stop leak if not risky. Move containers from spill area. Prevent entry to sewers, water courses, basement and confined areas. Contains and collect spillage with non-combustible, absorbent material. Dispose according to local regulations.

## SECTION 7 – HANDLING AND STORAGE

### Handling

Put on appropriate personal equipment. Handle only with appropriate ventilation. Wear appropriate respirator when ventilation is not adequate. Keep container closed when not in use. Do not reuse empty container, may retain product residue.

### Storage

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep container closed when not in use. **Incompatible Materials:** Reactive with oxidizing agents, reducing agents, metals, acids, alkalis, moisture, peroxides and chlorine.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Hazardous Chemicals</u>	<u>Exposure Limits</u>		<u>OSHA-PEL</u>
	<u>ACGIH-TLV</u>	<u>ACGIH-STEL</u>	
NONYLPHENOXYPOLY (ETHYLENEOXY) ETHANOL	TWA 10mg/m <sup>3</sup> (8hrs)	N/A	N/A
HYDROBROMIC ACID	CEIL: 2ppm	N/A	TWA 10mg/m <sup>3</sup> (8hrs)
2,2'-IMINODIETHANOL	TWA 2mg/m <sup>3</sup> (8hrs) / 0.46ppm (8hrs)	N/A	15mg/m <sup>3</sup> (10hrs) / 3ppm (10hrs)
ETHYLAMINE	TWA 9.2 mg/m <sup>3</sup> (8hrs)	N/A	TWA 18mg/m <sup>3</sup> (8hrs) / 10ppm (8hrs)

**Engineering Controls:** A source of running water to flush or wash the eyes and skin in case of contact. Use local exhaust as needed.  
**Ventilation:** Local ventilation adequate.  
**Personal Protective Equipment – Respiratory:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary.  
**Personal Protective Equipment – Skin:** Chemical resistant Gloves  
**Personal Protective Equipment – Eyes:** Glasses/Splash goggles

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance:</b> Creamy Gray Paste	<b>Flash Point:</b> Not Established	<b>Vapor Pressure:</b> Negligible
<b>Odor:</b> Low	<b>Specific Gravity:</b> Greater than 1	<b>Flammability:</b> Not Established
<b>pH:</b> Not Established	<b>Solubility (H<sub>2</sub>O):</b> Negligible	<b>Flammability Limits:</b> LEL – Not Established
<b>Melting Point:</b> Not Established	<b>Evaporation Rate:</b> Not Established	UEL – Not Established
<b>Freezing Point:</b> Not Established	<b>Vapor Density:</b> Not Established	
<b>Boiling Point:</b> Not Established	<b>VOC:</b> 345 g/l	

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## SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous polymerization:** Will not occur

**Conditions to avoid:** None known

**Incompatible materials:** Reactive with oxidizing agents, reducing agents, metals, acids, alkalis, moisture, peroxides and chlorine.

**Hazardous decomposition products:** Acidic / Corrosive fumes

## SECTION 11 – TOXICOLOGICAL INFORMATION

<u>Hazardous Chemicals</u>	<u>Toxicity</u>	
	<u>LD<sub>50</sub></u>	<u>LC<sub>50</sub></u>
NONYLPHENOXYPOLY (ETHYLENEOXY) ETHANOL	Oral: 3.31g/kg (rat); Dermal: 2g/kg (rabbit)	N/A
HYDROBROMIC ACID	N/A	Inhalation: 2858ppm (1hr) (rat)
2,2'-IMINODIETHANOL	Oral: 2200mg/kg (rabbit)	N/A
ETHYLAMINE	Oral: 400mg/kg (rat); Dermal: 270mg/kg (rabbit)	Inhalation: 5540ppm (1hrs) (rat)

**Likely Routes of Exposure:** Inhalation, Skin Contact, Eye Contact and Ingestion

**Symptoms and Effect - Inhalation:** Toxic by inhalation. Can cause target organ damage. Irritating to the respiratory system. Exposed persons may need to be kept under medical surveillance for 48 hours. **Skin Contact:** Irritating to the skin. Harmful in contact with skin. This product contains material that is absorbed through skin. May cause sensitization by skin contact. Skin inflammation is characterized by itching, scaling, reddening or occasionally blistering. Prolong contact may cause dermatitis. **Eye Contact:** Corrosive to the eyes. Causes burns. Direct contact with the eyes can cause irreversible damage, including blindness. **Ingestion:** Harmful if swallowed. Corrosive to digestive tract. May cause burns to mouth, throat and stomach. Can cause target organ damage. Adverse symptoms may include the following: nausea or vomiting stomach pains. Ingestion may cause gastrointestinal irritation and diarrhea.

**Long-Term Effect:** Prolonged skin may cause dermatitis. Prolonged contact can cause severe irritation or even burns.

**Pre-Existing Conditions:** Individuals with pre-existing skin and digestive disorders and disorders involving any other target organ may be at risk to aggravate overexposure from this product.

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** None known

**Persistence & Degradability:** None known

**Bioaccumulative Potential:** None known

**Mobility in soil:** In normal use, emission of Volatile Organic Compounds (VOC's) to the air takes place, typically at a rate of 345 g/l.

## SECTION 13 – DISPOSAL CONSIDERATION

Dispose of product or container in accordance with federal, state or local regulations.

## SECTION 14 – TRANSPORTATION INFORMATION

D.O.T. (U.S.) : Not Regulated.

## SECTION 15 – REGULATORY INFORMATION

**Precautionary Label Information:** Toxic, Corrosive and Health Hazard

**Risk Phrases:** **R22**-Harmful if swallowed. **R23**-Toxic by inhalation. **R36/37/38**: Irritating to the eyes, respiratory system and skin. **R41**-Risk of serious damage to eyes.

**Safety Phrases:** **S2**-Keep out of reach of children. **S9**-Keep container in a well-ventilated place. **S16**-Keep away from sources of ignition-No smoking. **S25**-Avoid contact with eyes. **S26**-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

## SECTION 16 – OTHER INFORMATION

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Black Swan Mfg. Co. urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on the sheets. **DATE: 01/01/2014**