MATERIAL SAFETY DATA SHEET
This Material Safety Data Sheet complies with the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200

PRODUCT: LENOX® HIGH ACTIVITY STAINLESS STEEL LIQUID FLUX (Inorganic Acid Soldering Flux)

NFPA/HMIS HAZARD CODES:

<table>
<thead>
<tr>
<th></th>
<th>HEALTH</th>
<th>FIRE</th>
<th>REACTIVITY</th>
<th>SPECIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Minimal</td>
<td>1</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>1</td>
<td>Slight</td>
<td>2</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Serious</td>
<td>4</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION I IDENTIFICATION
SUPPLIER NAME: LENOX®
1690 Lowery Street
Winston-Salem, NC 27101

INFORMATION PHONE: 336-777-8600

SECTION II COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NO.</th>
<th>US OSHA PEL</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Bifluoride</td>
<td>1341-49-7</td>
<td>2.5 PPM</td>
<td>3-6</td>
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<tr>
<td>Ammonium Chloride</td>
<td>12125-02-9</td>
<td>NA</td>
<td>4-15</td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>5.0 PPM</td>
<td>3-15</td>
</tr>
<tr>
<td>Zinc Chloride</td>
<td>7646-85-7</td>
<td>1 PPM</td>
<td>30-45</td>
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</tbody>
</table>

PEL = PERMISSIBLE EXPOSURE LIMIT
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 III HEALTH HAZARDS

EYES: Flush with water for 10 minutes. Obtain immediate medical attention.

SKIN: Wash thoroughly with water. If irritation develops, obtain medical attention.

ACUTE INHALATION: Remove to fresh air. Obtain immediate medical attention.

INGESTION: If patient is fully conscious, give two glasses of water and induce vomiting. Obtain immediate medical attention.

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 PPM

ACGIH Threshold Limit Value (TLV): 1 PPM

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: Dry chemical, CO2 foam

AUTO IGNITION TEMPERATURE: None

SPECIAL FIRE FIGHTING PROCEDURES: Normal cautious when dealing with chemicals.

UNUSUAL FIRE & EXPLOSION HAZARDS: Will release small amounts of HC1 upon decomposition.

SECTION V 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 VI HANDLING AND STORAGE

STORAGE REQUIREMENT: Store in plastic containers in cool area, away from heat. Do not store in glass or porcelain container. Wash thoroughly after use.

HANDLING PRECAUTIONS: Safe precautionary practices - avoid spills and exposure to skin and fumes.

SECTION VII CONTROL MEASURES

RESPIRATORY PROTECTION (TYPE): NIOSH approved respirator
MECHANICAL (GENERAL): Yes
EYE PROTECTION: Safety glasses/goggles
PROTECTIVE GLOVES: Recommended, NIOSH approved
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Rubber apron, or equivalent
VENTILATION: Yes
LOCAL EXHAUST: Yes

SECTION VIII PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT: 104°C/220°F
VAPOR PRESSURE (mm Hg): N/A
VAPOR DENSITY (AIR=1): N/A
MELTING POINT: 0°C/32°F
REACTIVITY IN WATER: None

SPECIFIC GRAVITY (WATER=1): 1.50
PERCENT VOLATILE BY VOLUME: 55%
EVAPORATION RATE (BUTYL ACETATE=1): 0.6
SOLUBILITY IN WATER: Unlimited
APPEARANCE AND ODOR: Clear, odorless liquid

SECTION IX STABILITY AND REACTIVITY

STABILITY: Product is stable
(CONDITIONS TO AVOID): Metals
INCOMPATIBILITY: Alkaline, Strong Oxidizing or Reducing Materials, Cyanides or Combustible Materials.
HAZARDOUS DECOMPOSITION PRODUCTS: HC1, Zinc Chloride, Zinc Oxide, Ammonium
HAZARDOUS POLYMERIZATION: Will not occur
(CONDITIONS TO AVOID): Excessive heat or cold

SECTION X TRANSPORTATION AND DISPOSAL CONSIDERATIONS

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 DOT LABEL REQUIRED INFO: Corrosive
WASTE DISPOSAL METHOD: Dispose of in accordance with EPA regulations

SECTION XI OTHER INFORMATION

VOC CONTENT: None

This Material Safety Data Sheet is offered solely for your information, consideration and investigation. LENOX® provides no warranties; either express or implied, and assumes no responsibilities for the accuracy or completeness of the data contained in this document. The data in this Material Safety Data Sheet relates only to this product and does not relate to use in combination with any other material or in any process.