

MATERIAL SAFETY DATA SHEET

CODE: M/L 1139

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: HEALTH: 3 FIRE: 0 REACTIVITY: 0 SPECIAL: N/A

0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION I IDENTIFICATION

SUPPLIER NAME: LENOX® **ISSUE DATE:** May, 2005
 1690 Lowery Street
 Winston-Salem, NC 27101

INFORMATION PHONE: 336-777-8600

SECTION II COMPOSITION INFORMATION

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

PEL = PERMISSABLE 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 | SPECIFIC GRAVITY (WATER=1): | 1.50 |
| VAPOR PRESSURE (mm Hg): | N/A | PERCENT VOLATILE BY VOLUME: | 55% |
| VAPOR DENSITY (AIR=1): | N/A | EVAPORATION RATE (BUTYL ACETATE=1): | 0.6 |
| MELTING POINT: | 0°C/32°F | SOLUBILITY IN WATER: | Unlimited |
| REACTIVITY IN WATER: | None | 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

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