### Section 1: GENERAL INFORMATION

**TRADE NAME (Common Name or Synonym)**
HL-1200

**CHEMICAL NAME**
Soldering Flux

**PREPARED BY**
Metallic Resources

**USED IN INDUSTRIAL SOLDERING PROCESSES**
Metallic Resources, Inc., 2368 East Enterprise Parkway, Twinsburg, OH 44087

**ADDRESS (No., Street, City, State, Zip Code):**
Metallic Resources, Inc., 2368 East Enterprise Parkway, Twinsburg, OH 44087

**CONTACT**
Metallic Resources, Inc.: (330) 425-3155
Chemtrec: (800) 424-9300

or contact any emergency room within 15 minutes of your location.

### Section 2: HAZARDS IDENTIFICATION

**Signal word:** Warning

**Hazard statement(s)**
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335 May cause respiratory irritation

**Precautionary statement(s)**
- P233 Keep container tightly closed
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P270 Do not eat, drink or smoke when using this product
- P273 Avoid release to the environment
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P362 Take off contaminated clothing and wash before reuse
- P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
- P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

**POTENTIAL HEALTH EFFECTS:**

**Eye Contact:** May cause serious eye irritation.

**Ingestion:** May cause irritation.

**Inhalation:** May cause irritation.

**Skin Contact:** May cause harm to the skin upon contact. May cause skin irritation.

**Chronic:** Not established.

**NOTE:** Metallic Resources does not recommend, manufacture, market or endorse any of its products for human consumption.

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material or Substance</th>
<th>C.A.S. #</th>
<th>Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>40-60%</td>
</tr>
<tr>
<td>Polyglycol</td>
<td>90003-11-6</td>
<td>40-60%</td>
</tr>
<tr>
<td>Amine Halide</td>
<td>57-13-6</td>
<td>1-3%</td>
</tr>
</tbody>
</table>
Section 4: FIRST AID MEASURES

Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

Section 5: FIRE FIGHTING MEASURES

Flash Point: None
Auto-ignition Temperature: None
Flammable Limits: Not established
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions.
Special Fire Fighting Procedures: Standard fire fighting equipment

Section 6: ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Do not allow product to enter sewer system or waterway, unless approved to do so. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

Section 7: HANDLING AND STORAGE

Handling Precautions: Keep containers tightly closed when not in use. Use care to avoid spills. Wear personal protective equipment.

Storage Precautions: Store product in tightly capped original containers in a cool, dry area, well ventilated away from sources of ignition. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Face velocity >2.1 cubic feet/minute in confined areas. Exhaust ventilation is recommended to keep exposure limits as low as possible. Keep exposure as low as possible.

Personal protection:
- Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.
- Respirator: A NIOSH approved or compliant marked air-purifying respirator with a fume/organic chemical cartridge is recommended where airborne concentrations are expected to be elevated.
- Skin: Compatible chemical resistant gloves. Do not use latex gloves.
- Other: Lab coat, sleeve protectors, eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately.
Good personal hygiene is essential. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid, clear
Odor: Mild characteristic odor
Specific Gravity: 1.19 +/- 0.01
Vapor Pressure: 218 mmHg at 173°F (78°C)
Vapor Density: (air=1) Not Applicable
Boiling Point: 212°F (100°C)
Melting Point: Not applicable
pH: 1.8 – 2.4
Solubility in Water: Soluble
Section 10: STABILITY AND REACTIVITY
General: Stable.
Conditions to Avoid: Direct heat, open flames and storage in aluminum.
Incompatible Materials: Strong alkali
Hazardous Decomposition / Combustion:
Hazardous Polymerization: Will not occur

Section 11: TOXICOLOGICAL INFORMATION
Carcinogenicity:
NTP: No OSHA: No IARC: No
LD50: Not established. LC50: Not established.

Section 12: ECOLOGICAL INFORMATION
No Data Available

Section 13: DISPOSAL CONSIDERATION
Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

Section 14: TRANSPORT INFORMATION
Transport in accordance with applicable regulations and requirements. Not regulated under US DOT (United States Department of Transportation).
Non hazardous
UN - none

Section 15: REGULATORY INFORMATION
UNITED STATES
CERCLA: Not subject to any special reporting under the requirements of CERCLA.
TSCA Status: All ingredients are listed or are exempt from listing (as polymers) under TSCA.
CANADA
WHMIS (Canada): Class B Division 2, Class D Division 2B
California Proposition 65: When used for soldering and similar applications, the chemicals may be products which are known to some states to cause birth defects or other reproductive harm.
Reach Directive 1907/2006: This product does not contain any Substances of Very High Concern (SVHC).

Section 16: OTHER INFORMATION
ABBREVIATION TERMS:
ACGIH American Conference of Government Industrial Hygienists OSHA Occupational Safety and Health Act
CAS Chemical Abstracts Service PEL Permissible Exposure Limit
CEPA Canadian Environmental Protection Act REL Recommended Exposure Limit
IARC International Agency for Research on Cancer SARA Superfund Amendments & Reauthorization Act
NIOSH National Institute for Occupational Safety and Health TSCA Toxic Substances Control Act
NTP National Toxicology Program N/A Not Applicable, Not Available

Issue Date: 5/1/15 Revised Date: 5/1/15

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