Arctic Silver Inc.

Product Information: 559-740-0912
Medical Emergency Toll Free: 877-740-5015
Medical Emergency Alternate: 303-739-1110
Prepared by: Nevin House
Revision Date: August 23, 2012

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Company Address:
9826 W. Legacy Ave.
Visalia, CA 93291

Product Identification

Arctic Silver Thermal Adhesive

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Product Ingredient Information

- Silver (Metallic): CAS No. 7440
- Boron Nitride: 10043-11-5
- Part A Resin (Liquid Plastic N.O.S.): Non Hazardous
- Part B Hardener (Mercaptan Polymer): Non Hazardous

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Appearance: Silver colored epoxy.

Potential Health Effects:
- Eyes: Will produce severe irritation and possible irreversible damage.
- Skin: May be absorbed. Can cause irritation, redness, swelling, blisters.
- Ingestion: May cause severe gastric pain, mouth and throat burns, lung damage.
- Inhalation: Inhalation can be irritating to the respiratory tract. May cause headaches, nausea, and dizziness.

Chronic Effects of Over Exposure: Specific information available.

SECTION 4: FIRST AID MEASURES

- Eyes: Immediately flush with large amounts of water holding eyelids apart to rinse the entire surface of the eye. Have eyes examined by a Physician.
- Skin: Remove contaminated clothing and wash skin with soap and water. Get medical attention if irritation develops/persists.
- Ingestion: Seek immediate medical attention. If Part B is swallowed, immediately give 2 glasses (16oz) water. Do not induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person.
- Inhalation: In case of discomfort caused by inhaling a high concentration of vapors, get fresh air. If person is not breathing, start artificial respiration. Contact a Physician if necessary.

SECTION 5: FIRE FIGHTING MEASURES

- Flash Point: > 400°F COC
- Extinguishing Media: Use water spray, dry chemical, foam or carbon dioxide. Treat as a class B fire.
- Fire Fighting Instructions: Remove all ignition sources. Closed containers may rupture due to build-up of pressure when exposed to extreme heat. Fight fire from a safe distance. As in any fire, wear self-contained breathing apparatus (pressure demand, OSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Spills: Absorb spill with absorbent material, then place in a sealed container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Overheating may cause container to rupture. Use explosion proof electrical equipment. Containers must be kept closed and ventilation provided to prevent vapor concentration build-up. Store in a cool dry place. Do not breathe vapor or get liquid in eyes, or on skin and clothing. Keep away from heat or sources of ignition. Check all containers for leaks. Avoid prolonged breathing of vapors or contact with skin. Ensure that all equipment is grounded to prevent static discharge. Containers of this material may be hazardous when emptied due to solid or vapor residue. All hazard precautions given in this data sheet must be observed for empty containers.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure Guidelines:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>ACGIH STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>0.1 mg/m3</td>
<td>0.01mg/m3</td>
<td>NA</td>
</tr>
<tr>
<td>Boron Nitride</td>
<td>10 mg/m3</td>
<td>10 mg/m3</td>
<td>NA</td>
</tr>
<tr>
<td>Part A</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Part B</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

- Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Wear safety glasses with side shields or goggles and rubber or other chemically resistant gloves when handling this material.

- NFPA and HMIS Codes:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>NTP (No) IARC (No) Osha (No)</td>
</tr>
</tbody>
</table>

- Specific Gravity: 2.28
- Boiling Range: >200C
- Percent Volatile: < 0.5
- Solubility in Water: Low
- Flash Point: > 400°F COC

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Physical State: Silver viscous liquid
- Odor: Mild odor
- Evaporation Rate: slower than butyl acetate
- Vapor Pressure: <0.15 mm Hg @ 20C
- Vapor Density: Heavier than air

SECTION 10: STABILITY AND REACTIVITY INFORMATION

Stability: This product is stable.
Conditions to Avoid: Excessive heat
Incompatibility: Strong oxidizing and reducing agents.
Products of Decomposition: Fumes produced when heated to decomposition may contain carbon monoxide, carbon dioxide, ammonia, and aldehydes.
Hazardous Polymerization: Will not occur.

SECTION 11: CARCINOGEN INFORMATION
Cancer Information: No ingredients listed as human carcinogens by NTP or IARC

SECTION 12: ECOLOGICAL INFORMATION
Environmental Impact Information
Avoid runoff into storm sewers and ditches that lead to waterways. Water runoff can cause environmental damage.

REPORTING
US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is:
1-800-424-8802

SECTION 13: DISPOSAL CONSIDERATIONS
Dispose of in accordance with all federal, state and local regulations.

SECTION 14: TRANSPORTATION INFORMATION
Air and Ground Shipments: Not Regulated

SECTION 15: OTHER INFORMATION
Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.