1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Silver Thermagrease (Heat Transfer Paste)
Supplier: Pipcar Ltd Limited
Address: Unit 4B Valley Industries, Hadlow Rd, Tonbridge, Kent TN11 0AH. UK.

Phone Number: +44 (0)1732 851807
Fax Number: +44 (0)1732 850255

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Preparation & Components (CAS No.):
Silver (Metallic) 7440-22-4
Boron Nitride 10043-11-5
Zinc Oxide 1314-13-2
Aluminum Oxide 1344-28-1
Polyol Ester Non-hazardous

3. HAZARD IDENTIFICATION

Emergency Overview: Grey grease. This product is nonflammable. Liquid will irritate eyes.

Potential Health Effects:
Eyes: This product is an eye and mucus membrane irritant.
Skin: Not expected to be a skin irritant. Repeated and prolonged skin contact could cause minor skin irritation.
Ingestion: Silver ingestion may result in generalized argyria.
Inhalation: No specific information available.
Pre-Existing Medical Conditions Aggravated
By Exposure: Eyes

4. FIRST AID MEASURES

Eyes: Immediately flush with large amounts of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined by a Doctor.
Skin: Remove contaminated clothing and wash skin with soap and water. Get medical attention if irritation develops/persists. Wash clothes separately before reuse.

Ingestion: If appreciable quantities are swallowed, seek medical advice.

Inhalation: Not likely route of exposure. If inhaled and irritation occurs, remove to fresh air. If irritation persists, call a Doctor.

5. FIRE FIGHTING MEASURES

Flash Point: > 600°F (Seta flash) LEL/UEL: NA (% by volume in air)

Extinguishing Media: Use carbon dioxide or dry chemicals for small fires, aqueous foam or water for large fires involving this material.

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. Use foam, dry chemical or carbon dioxide. Do not use water jet. This product may give rise to hazardous fumes in a fire. Wear self-contained breathing apparatus. (Pressure demand, OSHA/NIOSH approved or equivalent) and full protective gear. This product may give rise to hazardous fumes in a fire.

6. ACCIDENTAL RELEASE MEASURES

Large Spills: Remove all sources of ignition (sparks, open flames, etc.). Wear self-contained breathing apparatus and appropriate personal protective equipment. Ventilate area and contain spill with sand or other absorbent material. Collect spill by scooping up liquids and absorbent material and place in a sealed metal container for proper disposal. Do not flush to sewer. Prevent material from entering storm sewers, ditches that lead to waterways and ground.

Small Spills: Absorb spill with absorbent material, then place in a sealed metal container for proper disposal.
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. Wear protective clothing as in section above. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

<table>
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<tr>
<th>CHEMICAL NAME</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>ACGIH STEL</th>
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<tbody>
<tr>
<td>Silver</td>
<td>0.1 mg/m3</td>
<td>0.01 mg/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>Zinc Oxide</td>
<td>10 mg/m3 (dust)</td>
<td>15 mg/m3 (dust)</td>
<td>10 mg/m3</td>
</tr>
<tr>
<td>Aluminum Oxide</td>
<td>10 mg/m3 (dust)</td>
<td>10 mg/m3 (dust)</td>
<td>NA</td>
</tr>
<tr>
<td>Polyol Ester</td>
<td>NA</td>
<td>NA</td>
<td>NA NA NA</td>
</tr>
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NFPA and HMIS Codes:

<table>
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<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
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<tr>
<td>1 1</td>
<td>1 1</td>
<td>0 0</td>
<td>- B</td>
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</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Grey Grease  
Solubility in Water: <1.0%  
Odor: None  
Specific Gravity: 4.05-4.15  

pH: NA  
Evaporation Rate: Slower  

Vapor Pressure: NA (Butyl acetate=1)  
(Air 1): Boiling Range: NA  

Vapor Density: NA (Water =1)  
(Air 1)  
Percent Volatile: < 0.2%

10. STABILITY AND REACTIVITY

Stability: This product is stable.  
Conditions to Avoid: Contamination with incompatible materials.  
Incompatibility: Avoid strong oxidizing agents, strong acids and alkalis.  

Products of Decomposition: Carbon monoxide, carbon dioxide, silicon dioxide, oxides of nitrogen, and incompletely burned hydrocarbons which may include minute traces of formaldehyde. Reacts with acids and alkalis to form combustible hydrogen gas.

Hazardous Polymerization: May not occur.  
Conditions to avoid: NA

11. TOXICOLOGICAL INFORMATION

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC and OSHA-Ca

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
13. DISPOSAL

Disposal: Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage. Do not dispose of in household waste. Or allow to enter sewage system.

14. TRANSPORT INFORMATION

Air and Ground Shipments: Not Regulated

15. REGULATORY INFORMATION

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). **Product contains no Section 313 listed chemicals.**

This information should be included on all MSDSs copied and distributed for this material.

Toxic Substances Control Act (TSCA): All ingredients of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

Product Use: For industrial use only. 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.

WHMIS: Ingredient disclosure list: None

Status: Non controlled

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.