SECTION 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Material Identification**: Silquat 3450

**Company Identification**: Siltech Corp.

**Chemical Name**: Silicone quaternium compound

**INCI Name**: None

225 Wicksteed Avenue

Toronto, Ont.

M4H 1G5

(416)424-4567

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SECTION 2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Wt %</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-41-5</td>
<td>15 - 25</td>
<td>Hexylene Glycol</td>
</tr>
<tr>
<td>111-76-2</td>
<td>2 - 5</td>
<td>2-Butoxyethanol</td>
</tr>
</tbody>
</table>

**THIS MATERIAL IS FOR INDUSTRIAL USE ONLY, NOT FOR FOOD, MEDICAL OR DRUG USE.**

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SECTION 3. HAZARDS IDENTIFICATION

Good manufacturing practices are always recommended when handling any chemical.

**Eyes**: Causes severe irritation, experienced as stinging and discomfort or pain. Excess redness and swelling of the conjunctiva may occur.

**Skin**: Brief contact may cause mild irritation and redness.

**Inhalation**: Narcotic in high concentrations causing headaches and dizziness.

**Oral**: Causes central nervous system and internal organ damage, blindness and death on ingestion.

**Repeated exposure effects**:

**Skin**: May defat skin after prolonged contact.

**Inhalation**: Narcotic in high concentrations causing headaches and dizziness.

**Oral**: Causes damage to the liver, heart and kidneys.

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SECTION 4. FIRST AID MEASURES

**Eyes**: Immediately flush with warm running water for at least 15 minutes, holding eyelids open during flushing. If irritation persist, repeat flushing and obtain medical attention immediately.

**Skin**: Remove contaminated clothing. Immediately flush exposed area with large amounts of warm running water for at least ten (10) minutes. If irritation persists or if contact has been prolonged, obtain medical attention.

**Inhalation**: Immediately remove to fresh air. Give oxygen for breathing difficulty. If breathing has stopped give artificial respiration. If breathing and pulse are absent give CPR. Immediately obtain medical attention. Stay with casualty until medical assistance is reached.

**Oral**: DO NOT INDUCE VOMITING. If patient is fully conscious and not convulsing, give 2 to 4 glasses of water to dilute the material. Transport to medical facility. If spontaneous vomiting occurs have victim lean forward to avoid breathing in of emesis. Rinse mouth and administer more water.

**Comments**: Treat symptomatically.
SECTION 5. FIRE FIGHTING MEASURES

Flash Point:   82°C
Autoignition Temperature: Not determined.
Flammability: Not Applicable
Extinguishing Media: Dry chemical; foam or carbon dioxide, water spray.
Fire Fighting Procedures: Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Use self-contained breathing apparatus and body-covering protective clothing.
Hazardous Decomposition Products: Oxides of nitrogen, oxides of sulfur, oxides of carbon.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Containment/Clean up: Sections 13 and 15 of this MSDS provide information regarding certain Federal and local requirements. Leak and spill procedure. Evacuate area. Shut off all sources of ignition. Ventilate area. Collect for disposal. Clean up remaining materials from spill with suitable absorbent. For large spills provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in steel drums for recover or disposal. Clean area as appropriate since some silicone material, even in small quantities, may present a slip hazard. Final cleaning may require steam, solvents or detergents. Observe all personal protection equipment recommendations described in Sections 5 and 8 of this MSDS. Observe all Federal, Provincial and local regulations that may apply to the clean up of this material.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel): Follow routine safe handling procedures. Ground and bond equipment and containers to prevent a static charge build-up. Use spark resistant tools. Safety Glasses and PVC Gloves.
Storage: Keep container tightly closed. Product is “non-hazardous”.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Local Exhaust: Required.
General Ventilation: Required.

Personal Protective Equipment for Routine Handling
Eyes: Use chemical safety glasses.
Skin: Rubber gloves. Impermeable apron and coveralls as appropriate. Washing at mealtime and end of shift.
Inhalation: Properly ventilation required.
Suitable Respirator: NIOSH/MSHA approved respirator for concentrations exceeding TLV.
Other: An eyewash and safety shower should be nearby and ready for use.

Personal Protective Equipment for Spills
Eyes: Use proper protection - rubber gloves and chemical safety glasses as a minimum.
Skin: Rubber gloves. Impermeable apron and coveralls as appropriate.
Inhalation/Suitable Respirator: NIOSH/MSHA approved respirator for concentrations exceeding TLV.
Precautionary Measures: Avoid eye contact and inhalation.

WARNING
Causes severe eye irritation. Avoid contact with eyes.
Wash thoroughly after handling.
Keep away from heat and flame.

Note: These precautions are for room temperature handling. Use at elevated temperatures or aerosol spray applications may require added precautions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical form:</th>
<th>Liquid</th>
<th>Viscosity:</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>Amber Liquid</td>
<td>Melting Point:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Odour:</td>
<td>Characteristic</td>
<td>Boiling point:</td>
<td>&gt;100 °C @ 760 mmHg</td>
</tr>
<tr>
<td>Specific Gravity @ 25°C:</td>
<td>0.99 gm/ml</td>
<td>Vapour Pressure @ 25°C:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Dispersible</td>
<td>pH:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
**SECTION 10. STABILITY AND REACTIVITY**

<table>
<thead>
<tr>
<th>Chemical Stability:</th>
<th>Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Polymerization:</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>Incompatibility with other substances:</td>
<td>Oxidizing agents, acids, acid chlorides, CrO$_3$, H$_2$O$_2$.</td>
</tr>
<tr>
<td>Materials to Avoid:</td>
<td>Strong bases and acids. Strong oxidizing agents.</td>
</tr>
</tbody>
</table>

**SECTION 11. TOXICOLOGICAL INFORMATION**

Optional Section - Complete information not yet available.

**SECTION 12. ECOLOGICAL INFORMATION**

Optional Section - Complete information not yet available.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Landfill and/or incineration where permitted under Federal, Provincial or local laws. Observe all local, Provincial, and Federal waste management regulations.

**SECTION 14. TRANSPORTATION INFORMATION**

<table>
<thead>
<tr>
<th>Shipping Name:</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Name:</td>
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</tr>
<tr>
<td>Primary Class:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Subsidiary Risk:</td>
<td>Not assessed</td>
</tr>
<tr>
<td>Product Identification Number:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>Not applicable</td>
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</tbody>
</table>

**SECTION 15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the CPR, and this MSDS contains all the information required by the CPR.

<table>
<thead>
<tr>
<th>WHMIS Classification:</th>
<th>Class D - Division 2B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class B - Division 3</td>
</tr>
</tbody>
</table>

**SECTION 16. OTHER INFORMATION**

The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. This data is offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

Responsibility for MSDS: Raj Moonsammy
Address: Siltech Corp.
225 Wicksteed Avenue
Toronto, Ontario, M4H 1G5
Telephone: (416) 424-4567

This is the last page.