SECTION 1. IDENTIFICATION

**Material Identification:** Silmer VQ 2012

**Chemical Name:** Vinyl Silicone resin

**Chemical Classification:** Silicone

**CAS #:** 68988-89-6

**Company Identification:** Siltech Corp.

225 Wicksteed Avenue

Toronto, Ontario

Canada

M4H 1G5

(416) 424-4567

**Recommended Product Usage**

Additive

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**SECTION 2. HAZARD(S) IDENTIFICATION**

**HAZARD CLASSIFICATION:**

Flammable liquid: Category 3

**GHS LABEL ELEMENTS** (including precautionary statements):

- **Symbol:**

- **Signal Word:** Warning

- **Hazard Risk Statement:** H226: Flammable liquid and vapour.

**Precautionary Statement:**

**Prevention:**

P210: Keep container tightly closed and away from ignition sources such as heat, sparks and open flame. NO SMOKING.

P240: Ground all equipment and use only non-sparking tools.

P280: Wear suitable protective clothing, gloves and eye protection.

P262: Do not get in eyes, on skin, or on clothing.

**Response:**

P305 + P351: IF IN EYES: Rinse with water for several minutes. Repeat if needed.

P303 + P361+P353: IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Storage:**

P403 + P235: Store in well-ventilated place. Keep cool.

**Disposal:**

P501: Dispose of contents/container in accordance with local / regional / national / international regulations.

**OTHER HAZARD** (risk not included in classification):

None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name or Synonym</th>
<th>CAS No.</th>
<th>EINECS/ELINCS No.</th>
<th>% (w/w)</th>
<th>GHS Classification</th>
<th>Classification according to Directive 67-548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, [(ethenyldimethylsilyl)oxy]-vinyl MQ Resin and [(trimethylsilyl)oxy]-modified</td>
<td>Vinyl MQ Resin</td>
<td>68988-89-6</td>
<td>N/A</td>
<td>&gt;95</td>
<td>Flammable liquid: Xn</td>
<td>Category 3 R10, R65</td>
</tr>
</tbody>
</table>

Other ingredients not listed in this section are non-hazardous or business confidential.

SECTION 4. FIRST AID MEASURES

**Eyes:** Immediately flush with water.

**Skin:** Wash off with soap and water.

**Inhalation:** No first aid should be needed. If discomfort occurs, remove to fresh air.

**Ingestion:** Obtain medical attention.

SECTION 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Carbon dioxide, dry powder, foam, or water spray. Water can be used to cool fire exposed containers.

**Unsuitable Extinguishing Media:** None known.

**Specific Hazards Arising from the Chemical:** Silicon Dioxide. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde.

**Special Protective Actions for Fire-Fighters:** Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Use water spray to cool fire exposed containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Protective Equipment:** Avoid eye and skin contact. Use personal protective equipment.

**Environmental Precautions:** Prevent from entering drains or water sources.

**Containment/Clean up:** 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 appropriate container. 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.

SECTION 7. HANDLING AND STORAGE

**Handling Precautions:** Avoid eye and skin contact. Do not take internally. Use with adequate ventilation. Wash after handling. Exercise good industrial hygiene practice.

**Storage Conditions:** Keep container tightly closed and away from heat, sparks, and flame. Ground all equipment. Static electricity will accumulate and may ignite vapours.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT VALUES / BIOLOGICAL LIMIT VALUES:

Industrial Hygiene Standards

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS:
Local Ventilation: Recommended.
General ventilation: Recommended.

PERSONAL PROTECTIVE EQUIPMENT:
Respiratory protection: In the case of vapour formation use a respirator with an approved filter.
Hand protection: Chemical protective gloves should be worn for repeated or prolonged contact.
Eye protection: Safety glasses should be worn.
Skin protection: Protective equipment is not normally required.
Hygiene measures: Observe good industrial hygiene practices. Wash after handling.

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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>48.9°C (Pensky-Martens closed cup)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity @25°C</td>
<td>1.00</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Viscosity @25°C</td>
<td>90 cps</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>&gt;100°C @ 760 mmHg</td>
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<tr>
<td>Boiling Range</td>
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<tr>
<td>Explosive Properties</td>
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<tr>
<td>Vapour Pressure @25°C</td>
<td>Not determined</td>
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<tr>
<td>Vapour Density</td>
<td>Not determined</td>
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<td>Partition Coefficient</td>
<td>Not determined</td>
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<tr>
<td>pH</td>
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<tr>
<td>Oxidising Properties</td>
<td>No</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable.
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: None known.
Incompatible Materials: Strong oxidizing material can cause a reaction.
Hazardous Decomposition Products: The following decomposition products may form during fire or at very high temperatures: Carbon Oxides, Silicon dioxide, Formaldehyde, and traces of incompletely burned carbon compounds.
SECTION 11. TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE:

Respiratory: Exposure is expected.
Oral: Exposure is expected.
Eye, Skin: Exposure is expected.

INFORMATION ON THE HEALTH HAZARDS:

Acute Toxicity: None known.
Eyes: Direct contact may cause temporary redness and discomfort.
Skin: No significant irritation expected from a single short-term exposure.
Inhalation: No significant irritation expected from a single short-term exposure.
Ingestion: Low ingestion hazard in normal use.

Chronic Toxicity:
Skin: No known applicable information.
Inhalation: No known applicable information.
Ingestion: Repeated ingestion or swallowing large amounts may injure internally.
Other Health Hazard: No known applicable information.

Skin Corrosion/Irritation: No known applicable information.
Serious Eye Damage/Irritation: No known applicable information.
Respiratory Sensitization: No known applicable information.
Skin Sensitization: No known applicable information.
Carcinogenicity: No known applicable information.
Germ Cell Mutagenicity: No known applicable information.
Reproductive Toxicity: No known applicable information.
Specific Target Organ: No known applicable information.
(Systemic Toxicity – Single exposure)
Specific Target Organ: No known applicable information.
(Systemic Toxicity – Repeated exposure)
Aspiration Hazard: No known applicable information.
SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Environmental Effects
Acute: No adverse effects on aquatic organisms.
Chronic: No adverse effects on aquatic organisms.

PERSISTENCE AND DEGRADABILITY:

Degradation: In soil, siloxanes are degraded. The organic solvent is biodegradable.
Environmental Fate and Distribution: Siloxanes are removed from water by sedimentation sewage or binding to sludge. Organic solvents may evaporate into atmosphere and degrade.

BIOACCUMULATIVE POTENTIAL:

Bioaccumulation: No bioaccumulation potential.

MOBILITY IN SOIL:

None known.

OTHER ADVERSE EFFECTS:

None known.

SECTION 13. DISPOSAL CONSIDERATIONS

Product Disposal: Do not dispose of waste into sewer. Dispose of in accordance with local regulations.

Packaging Disposal: Dispose of in accordance with local regulations.
### SECTION 14. TRANSPORTATION INFORMATION

**AIR TRANSPORT (IATA):**
- UN No.: 1993
- Proper Shipping Name: Flammable liquid, n.o.s. (Silicone resin)
- Class: 3
- Packing group: III
- Labels: Flammable Liquid

**SEA TRANSPORT (IMDG):**
- UN No.: 1993
- Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Silicone resin)
- Class: 3
- Packing group: III
- Emergency Schedule: F-E
- (EmS): S-E
- Labels: Flammable liquid

**ROAD / RAIL:**

**ADR/RID**
- UN No.: 1993
- Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Silicone resin)
- Class: 3
- Packing group: III
- Labels: 3

**CANADA TDG REGULATION**
- Shipping Name: Flammable liquid, N.O.S. (Silicone resin)
- Primary Class: 3
- Subsidiary Risk: Not assessed
- Product Identification Number: UN 1993
- Packing Group: III

**US DOT (49 CFR 172.101)**
- Shipping Name: Combustible liquid, N.O.S. (Silicone resin)
- Primary Class: 3
- Subsidiary Risk: Not assessed
- Product Identification Number: UN 1993
- Packing Group: III
SECTION 15. REGULATORY INFORMATION

CHEMICAL INVENTORIES:

TSCA: (USA) All ingredients are on the inventory.
DSL: (Canada) All ingredients are on the inventory.
EINECS: (EU) All ingredients are on or exempted (polymer) from the inventory.
AICS: (Australia) All ingredients are on the inventory.
IECS: (China) All ingredients are on the inventory.
MITI: (Japan) All ingredients are on the inventory.
KECL: (Korea) All ingredients are on the inventory.
NZIoC: (New Zealand) All ingredients are on the inventory.
CSNN: (Taiwan) All ingredients are on the inventory.
PICCS: (Philippines) All ingredients are on the inventory.

CANADA
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.
WHMIS Classification: CLASS B - Division 3
CLASS D - Division 2B

USA
EPA SARA Title III Chemical Listings:
Section 302 Extremely Hazardous Substances (40 CFR 355): None
Section 304 CERCLA Hazardous Substances (40 CFR 302): None
Section 311/312 Hazard Class (40 CFR 370):
   Acute: Yes; Chronic: No; Fire: Yes; Pressure: No; Reactive: No
Section 313 Toxic Chemicals (40 CFR 372): None

Supplemental State Compliance Information
California
Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm: None known.

Massachusetts / New Jersey / Pennsylvania
No ingredients regulated by MA/NJ/PA Right-to-know Laws present.

KOREA
Classification and labelling in accordance with Industrial Safety and Health Law: No subject chemicals.
Chemicals controlled in accordance with Toxic Chemicals Control Act: No subject chemicals.
Hazardous Material Safety Management Act:
   Classification I Class 4: 2nd type petroleum non water-soluble liquids
   Hazardous ranking II Hazardous rank III
   Signal Word I Keep Away from fire.
Wastes Management Act:
   Product should be disposed of in accordance with Waste Management Law Article 12.

EEC
Labelling according to EEC Directive
S-phrases: S16 (Keep away from sources of ignition I no smoking) / S62 (If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label) / S51 (Use only in well-ventilated areas)
R-phrases: R10 (FLAMMABLE) / R65 (HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED)

GERMANY
Wassergefährdungsklasse (water hazard class) : WGK 1
**SECTION 16. OTHER INFORMATION**

The data in this SDS 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.

<table>
<thead>
<tr>
<th>SDS prepared by:</th>
<th>Raj Moonsammy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Siltech Corp</td>
</tr>
<tr>
<td></td>
<td>225 Wicksteed Avenue</td>
</tr>
<tr>
<td></td>
<td>Toronto, Ontario, Canada M4H 1G5</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(416) 424-4567</td>
</tr>
<tr>
<td>First Issuing Date:</td>
<td>December 11, 2014</td>
</tr>
<tr>
<td>Revision No.:</td>
<td>1</td>
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<td>December 11, 2014</td>
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