1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product Name: Silquat C18
Product code: 4386
Chemical Name: Mixture
CAS No.: 27668-52-6 / 67-56-1

1.2 Recommended use of the chemical and restrictions on use
Identified use(s): Coatings
Uses advised against: None known

1.3 Details of the supplier of the Safety Data Sheet
Company Identification: Siltech Corp
225 Wicksteed Ave
Toronto, ON Canada M4H 1G5
Telephone: +1-416-424-4567
Fax: +1-416-424-3158
E-Mail (competent person): raj@siltech.com

Additional Location: Siltech Corp
3265 Wolfedale Road,
Mississauga ON Canada L5C 1V8
Telephone: +1-905-270-5534
Fax: +1-905-270-5816

1.4 Emergency telephone number
Emergency Phone No.: CANUTECH - TELEPHONE: EMERGENCY USE ONLY
+1-613-996-6666

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
- Flam. Liq. 2
- Skin Irrit. 2
- Eye Irrit. 2
- Acute Tox. 3 - Oral
- Acute Tox. 3 - Inhalation
- Acute Tox. 3 - Dermal
- STOT SE 1 - Optic nerve
- Aquatic Acute 1
- Aquatic Chronic 1

2.2 Label elements
Product Name: Silquat C18
Symbol: DANGER

Signal word(s): DANGER
Hazard statement(s):
H225: Highly flammable liquid and vapour.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled
H370: Causes damage to organs: Optic nerve
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):
P210: Keep away from heat, hot surfaces, sparks, open P240: Ground/bond container and receiving equipment. Flames and other ignition sources. No smoking.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands and exposed skin thoroughly after handling.
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.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311: Call a POISON CENTER/doctor.
P363: Wash contaminated clothing before reuse.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container to: Observe Local Regulations.

2.3 Other hazards

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>Synonym(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard pictogram(s) and Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-(trimethoxysilyl) propyl octadecyl dimethyl ammonium chloride</td>
<td>1-Octadecanaminium, N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]-, chloride (1:1)</td>
<td>70 - 80</td>
<td>27668-52-6</td>
<td>248-595-8</td>
<td>GHS09, GHS07, H315, H319, H400, H410</td>
</tr>
<tr>
<td>methyl alcohol</td>
<td>methanol</td>
<td>20 - 30</td>
<td>67-56-1</td>
<td>200-659-6</td>
<td>GHS02, GHS08, GHS06, H225, H301, H311, H331, H370</td>
</tr>
<tr>
<td>3-chloropropyl trimethoxysilane</td>
<td>(3-Chloropropyl) trimethoxysilane</td>
<td>1 - 5</td>
<td>2530-87-2</td>
<td>219-787-9</td>
<td>GHS02 : H226</td>
</tr>
<tr>
<td>1-Octadecanamine, N,N-dimethyl-</td>
<td>Dimantine</td>
<td>&lt; 1.0</td>
<td>124-28-7</td>
<td>204-694-8</td>
<td>GHS09, GHS05, GHS07, H302, H314, H400, H410</td>
</tr>
</tbody>
</table>

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention immediately if inhaled.
Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation develops or persists.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed: Causes skin irritation. Causes serious eye irritation. May disturb the central nervous system.

4.3 Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media
- Suitable Extinguishing Media: In case of fire, use water spray, foam, dry powder or CO2 for extinction. Keep containers cool by spraying with water if exposed to fire.
- Unsuitable Extinguishing Media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture: Silicon Dioxide, carbon oxides, incompletely burned carbon compounds, formaldehyde.

5.3 Advice for fire-fighters: A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes. Use personal protective equipment as required. Wear suitable respiratory protection. Remove all ignition sources.

6.2 Environmental precautions: Avoid release to the environment.

6.3 Methods and material for containment and cleaning up: Caution - spillages may be slippery. Cover spills with inert absorbent material. Transfer to a container for disposal. See Section: 7 & 8.

6.4 Reference to other sections:

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Avoid contact with skin and eyes. Avoid ingestion. Use only with sufficient ventilation. Wash thoroughly after handling. General hygiene measures for the handling of chemicals are applicable.

7.2 Conditions for safe storage, including any incompatibilities:
- Storage Temperature: Ambient
- Storage Life: Stable under normal conditions.
- Incompatible materials: Do not allow product to come into contact with water or moisture.

7.3 Specific end use(s): Industrial use

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>LTEL (8 hr TWA mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200</td>
<td></td>
<td>250</td>
<td></td>
<td>skin</td>
</tr>
</tbody>
</table>

8.1.2 Biological limit value: Not established
8.1.3 PNECs and DNELs

Not established

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation if fumes or vapours are likely to be evolved to ensure that the defined occupational exposure limit is not exceeded.

8.2.2 Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)

Wear suitable protective clothing, including eye/face protection and gloves (neoprene or nitrile are recommended).

Respiratory protection

Use NIOSH approved respiratory protection.

8.2.3 Environmental Exposure Controls

Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Coloured liquid (Amber)

Odour

Characteristic odour.

Odour Threshold

Not available.

pH

5.5 – 7.5

Melting Point/Freezing Point

Not available.

Initial boiling point and boiling range

Not available.

Flash point (PMCC)

12°C

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Not available.

Vapour pressure

Not available.

Vapour density

Not available.

Relative density / Specific Gravity (25°C)

0.94

Solubility(ies)

Soluble in water.

Partition coefficient: n-octanol/water

Not available.

Auto-ignition temperature

Not available.

Decomposition Temperature

Not available.

Viscosity (25°C)

30 cps

Explosive properties

Not available.

Oxidising properties

Not available.

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

May form explosive mixtures with air.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous Decomposition Product(s)

Silicon Dioxide, carbon oxides, incompletely burned carbon compounds, formaldehyde.
11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
- Ingestion: Toxic by inhalation, in contact with skin and if swallowed.
- Inhalation: Toxic by inhalation, in contact with skin and if swallowed.
- Skin Contact: Toxic by inhalation, in contact with skin and if swallowed.
- Eye Contact: Causes serious eye irritation.

Effects and Symptoms
- skin corrosion/irritation: Causes skin irritation.
- Serious eye damage/irritation: Causes serious eye irritation.
- Respiratory or skin sensitization: May cause damage to the central nervous system.
- Germ cell mutagenicity: Not classified
- Carcinogenicity: Not classified
- Reproductive toxicity: Not classified
- STOT - single exposure: Vapours may cause drowsiness and dizziness.
- Can cause damage to the eyes.
- STOT - repeated exposure: Not classified.
- Aspiration hazard: Not classified
- Delayed and chronic effects: Not available
- Calculated acute toxicity estimate (ATE): Not available

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability: Not available.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil: Not available.

12.5 Results of PBT and VPVB assessment: Not available.

12.6 Other adverse effects: None known

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: Do not empty into drains; dispose of this material and its container in a safe way.

13.2 Additional Information: Dispose of contents in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number: 1993

14.2 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Methanol Solution)

14.3 Class: 3 Packing group II

15. SECTION 15: REGULATORY INFORMATION

15.1 EU regulations

- REACH Registration No.: Not available.
- Candidate List of Substances of Very High Concern for Authorisation: None known.
15.2 International Inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Listed</th>
<th>Not listed</th>
<th>Polymer exempt</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (TSCA)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada (DSL/NDSL)</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Union (EINECS/ELINCS)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia (AICS)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China (IECSS)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan (ENCS)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Korea (KECI)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taiwan (TCSI)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand (NZIoC)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines (PIECS)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15.3 National regulations

United States (TSCA) TSCA Inventory Status: All chemicals in this product comply with TSCA rules and regulations including TSCA Section 5 (Inventory Rules).

HMIS (Hazardous Material Information System)
NFPA Rating
H = 3 / F = 3 / R = 0

15.4 US State Regulations

15.4.1 SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM
Methanol (CAS# 67-56-1) 20 – 30%

15.4.2 SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER
None known.

15.4.3 State Right to Know Lists
Methanol (CAS# 67-56-1) 20 – 30%

16. SECTION 16: OTHER INFORMATION

Revision: January 09, 2020

LEGEND

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTEL</td>
<td>Long Term Exposure Limit</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure Limit</td>
</tr>
<tr>
<td>STOT</td>
<td>Specific Target Organ Toxicity</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No Effect Level</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

Hazard statement(s) and Precautionary statement(s)

H225: Highly flammable liquid and vapour.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled
H370: Causes damage to organs.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands and exposed skin thoroughly after handling.
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.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311: Call a POISON CENTER/doctor.
P363: Wash contaminated clothing before reuse.
P403+P235: Store in a well-ventilated place. Keep cool.

**Hazard pictogram(s) and Hazard Symbol**

![GHS pictograms]

**Additional Information**

**Disclaimers**

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Siltech Corp. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Siltech Corp. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.