**SILTECH CORP.**

**Safety Data Sheet**

Prepared in accordance with GHS standard & Annex II - EC regulation 1907/2006 and amendments

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**SECTION 1. IDENTIFICATION**

- **Material Identification:** Siltech C-228
- **Chemical Name:** Block copolymer of dimethylsiloxane and a polyoxyalkylene
- **Chemical Classification:** Silicone
- **CAS #:** 142321-71-9 / 111-76-2

**Recommended Product Usage**

- Coatings

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

**HAZARD CLASSIFICATION:**

- Acute Toxicity: Category 3 Dermal, Inhalation
- Acute Toxicity: Category 4 Oral
- Skin irritation: Category 2
- Eye irritation: Category 2

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

- **Symbol:**
- **Signal Word:** Danger

**Hazard Risk Statement:**

- H311: Toxic in contact with skin.
- H331: Toxic if inhaled.
- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H311: Causes serious eye irritation.

**Precautionary Statement:**

- **Prevention:**
  - P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P270: Do not eat, drink or smoke when using this product.
  - P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

- **Response:**
  - P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
  - P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
  - P305+P351: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **Storage:**
  - P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

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

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**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>2-Butoxyethanol</td>
<td>Glycol ether EB</td>
<td>111-76-2</td>
<td>203-905-0</td>
<td>20-40</td>
<td>Acute Toxicity: Category 3: dermal</td>
<td>Xn</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Toxicity: Category 3: inhalation</td>
<td>R20/21/22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Toxicity: Category 4: oral</td>
<td>R36/38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin irritation: Category 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye irritation: Category 2</td>
<td></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 for 15 minutes. Obtain medical attention if irritation occurs.

**Skin:** Remove contaminated clothing and wash with soap and water. Obtain medical attention if irritation occurs.

**Inhalation:** If first aid is required move victim to fresh air.

**Ingestion:** Induce vomiting, give victim copious amounts of water and obtain medical attention immediately.

**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 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 oxidizing materials.
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>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>ACGIH: 20ppm TLV-TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA: 50ppm, skin, PEL-TWA</td>
</tr>
</tbody>
</table>

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

PERSONAL PROTECTIVE EQUIPMENT:
Respiratory protection: In the case of vapour formation use a respirator with an approved filter.
Hand protection: Chemical protective gloves are recommended (Butyl rubber, neoprene or nitrile).
Eye protection: Use proper protection - safety glasses as a minimum.
Skin protection: Impervious clothing.
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>Viscosity @25°C</td>
<td>100 cps</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to Yellow</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>&gt;100°C @ 760 mmHg</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>65°C (Pensky-Martens closed cup)</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour Pressure @25°C</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>238°C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity @25°C</td>
<td>0.91</td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>No</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</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: Avoid excessive heat, open flames and all ignition sources.
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:

- Eyes: Direct contact may cause severe irritation.
- Skin: 2-Butoxyethanol: (LD50 Dermal – rabbit – 220 mg/kg)
- Inhalation: 2-Butoxyethanol (LC50 Oral – rat – 2.17 mg/l – 4h)
- Ingestion: 2-Butoxyethanol (LD50 Oral – rat – 470 mg/kg)

Chronic Toxicity:

- Skin: No known applicable information.
- Inhalation: No known applicable information.
- Ingestion: No known applicable information.
- 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:

(Systemic Toxicity – Single exposure) No known applicable information.

(Systemic Toxicity – Repeated exposure) No known applicable information.

Aspiration Hazard: No known applicable information.
SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Environmental Effects
Acute: 2-Butoxyethanol : LC50 96h (fish) 1370 mg/L (median)
        2-Butoxyethanol : LC50 48h (crustaceans) 800 mg/L
Chronic: No known applicable information.

PERSISTENCE AND DEGRADABILITY:
Degradation: In soil, siloxanes are degraded.
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): Not subject to IATA regulations.

SEA TRANSPORT (IMDG): Not subject to IMDG code.

ROAD / RAIL
CANADA TDG: Not subject to TDG regulations.
ADR/RID: Not subject to ADR/RID regulations.

US DOT (49 CFR 172.101): Applicable only to containers over 119 gallons or 450 liters.
Shipping Name: Combustible liquid, N.O.S. (2-Butoxyethanol Solution)
Technical Name: Contains 2-Butoxyethanol
Primary Class: 3
Product Identification Number: UN 1993
Packing Group: III
SECTION 15. REGULATORY INFORMATION

CHEMICAL INVENTORIES:

TSCA: All ingredients are on the inventory.

DSL/NDSL: All ingredients are on the inventory.

EINECS: All ingredients are on or exempted from the inventory.

IECSC: All ingredients are on the inventory.

MITI: All ingredients are on the inventory.

CSNN: 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 1A.

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: No; Chronic: No; Fire: No; 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

2-Butoxyethanol (CAS# 111-76-2) 20-40%

EEC

Labelling according to EEC Directive

Symbols: Xn (Harmful)

R-phrases: R20/21/22 (Harmful by inhalation, in contact with skin and if swallowed) | R36/38 (Irritating to eyes and skin)

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.

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