

SAFETY DATA SHEET (SDS)

Version: 3.0

Revision Date: September 10th, 2025

Print Date: September 20th, 2025

Date of first issue: Jan 1st, 2025

Product Number: SC-110CS

SilexCore Conductive Silicone (Waterproof)

1. Identification

- **Product Name** : SilexCore Conductive Silicone
- **Product Number** : CS-110CS
- **Recommended Use** : Electric conductive silicone for various indoor/outdoor applications
- **Manufacturer/Supplier**

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2. Hazard Identification

- **Classification:**
 - Classified as hazardous under OSHA (29 CFR 1910.1200).

GHS Classification:

- **Physical Hazards:**
 - Flammable Liquid: Category 2
- **Health Hazards:**
 - Skin Irritation: Category 2
 - Eye Irritation: Category 2A
 - Specific Target Organ Toxicity - Single Exposure (STOT SE): Category 3 (Narcotic Effects)

- **Label Elements:**

Pictogram:



Signal Word: Danger

- **Hazard Statements:**

- **H225:** Highly flammable liquid and vapor
- **H315:** Causes skin irritation
- **H319:** Causes serious eye irritation
- **H336:** May cause drowsiness or dizziness

- **Precautionary Statements:**

- **P210:** Keep away from heat, sparks, open flames, and hot surfaces – No smoking
- **P233:** Keep container tightly closed
- **P240:** Ground and 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
- **P261:** Avoid breathing vapors
- **P264:** Wash skin thoroughly after handling
- **P271:** Use only outdoors or in a well-ventilated area
- **P280:** Wear protective gloves, protective clothing, and eye/face protection
- **P303 + P361 + P353:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
- **P304 + P340:** IF INHALED: Remove person to fresh air and keep comfortable for breathing
- **P312:** Call a poison center or doctor if you feel unwell
- **P337 + P313:** If eye irritation persists: Get medical advice
- **P370 + P378:** In case of fire: Use dry chemical, foam, CO₂, or water spray to extinguish
- **P403 + P233:** Store in a well-ventilated place. Keep container tightly closed
- **P403 + P235:** Store in a well-ventilated place. Keep cool
- **P501:** Dispose of contents/container in accordance with local/regional/national regulations

3. Composition/Information on Ingredients

Ingredient	% by wt.
Polydimethylsiloxane (PDMS)	25%
Conductive polymer	10%
Carbon-based materials	30%
Ethel Acetate	35%

Note: The specific chemical identity and concentrations of certain ingredients are considered proprietary information.

4. First Aid Measures

• Skin Contact:

- Remove contaminated clothing immediately.
- Wash affected area thoroughly with **soap and water**.
- If **skin irritation or redness develops, seek medical attention**.

• Eye Contact:

- Rinse **immediately** with plenty of **clean water for at least 15 minutes**.
- Remove contact lenses **if easy to do**. Continue rinsing.
- **Seek immediate medical attention** if irritation persists.

• Inhalation

- Move person to **fresh air** and keep comfortable for breathing.
- If breathing is difficult, **administer oxygen**.
- If symptoms persist (e.g., dizziness, drowsiness, or respiratory issues), **seek medical attention**.

• Ingestion:

- **Do not induce vomiting**.
- Rinse mouth thoroughly with water.
- **Drink water** to dilute if conscious.
- **Seek immediate medical attention** if symptoms occur (nausea, dizziness, difficulty breathing).

5. Flammability:

This product is highly flammable (due to ethyl acetate content). **Keep away from open flames, sparks, and heat sources.**

• Suitable Extinguishing Media:

Use:



- Foam
- Dry chemical powder
- Carbon dioxide (CO₂)
- Water spray or fog (not a strong jet stream, as it may spread the fire)

• *Unsuitable Extinguishing Media:*

Do not use a direct water jet, as it may cause the fire to spread.

• *Special Hazards Arising from the Substance:*

- Vapors may form **explosive mixtures with air**.
- Containers may explode when heated due to **pressure buildup**.
- **Hazardous combustion products:** Carbon monoxide (CO), carbon dioxide (CO₂), and other toxic fumes.

• *Protective Equipment for Firefighters:*

- Firefighters should wear **self-contained breathing apparatus (SCBA)** and full protective clothing to prevent exposure to fumes.
- Use fire-resistant gloves and eye protection.

6. Accidental Release Measures

Personal Precautions:

- **Eliminate all ignition sources** (sparks, open flames, static discharge, hot surfaces).
- Ensure **adequate ventilation**—vapors may form **explosive mixtures with air**.
- Wear **appropriate personal protective equipment (PPE)**:
 - **Gloves:** Nitrile or chemical-resistant gloves
 - **Respiratory Protection:** If ventilation is insufficient, use a **NIOSH-approved organic vapor respirator**
 - **Eye Protection:** Safety goggles or face shield
- Avoid breathing vapors and **prevent skin/eye contact**.

• *Environmental Precautions:*

- **Prevent entry into drains, sewers, soil, and waterways.**
- If the product enters waterways, notify local **environmental authorities**.

• *Methods for Containment and Cleanup:*

For Small Spills:

- **Absorb** with inert material (sand, vermiculite, or absorbent pads).
- **Place waste in sealed, properly labeled containers** for disposal per local regulations.

For Large Spills:

- Contain the spill using **non-combustible barriers**.
- Use explosion-proof equipment for cleanup.



- Use **foam** to suppress vapors if necessary.

Do NOT:

- Flush with water unless directed by emergency personnel.
- Use combustible materials (e.g., sawdust) for absorption.

7. Handling and Storage

Precautions for Safe Handling:

- **Use only in well-ventilated areas** or under **local exhaust ventilation** to prevent vapor buildup.
- **Keep away from heat, sparks, open flames, and hot surfaces – No smoking** near the material.
- Avoid breathing **vapors or mist**; wear a **NIOSH-approved organic vapor respirator** if ventilation is inadequate.
- **Prevent skin and eye contact** by wearing **chemical-resistant gloves (nitrile, butyl rubber), safety goggles, and protective clothing**.
- **Use grounded and explosion-proof equipment** when handling large quantities.
- **Avoid static discharge** – Use proper grounding/bonding techniques when transferring liquid.

Conditions for Safe Storage:

- **Store in a cool, dry, well-ventilated area**, away from **direct sunlight and ignition sources**.
- **Temperature range:** Keep below **25°C (77°F)** to prevent excessive evaporation and pressure buildup.
- **Keep container tightly closed** when not in use to avoid solvent evaporation.
- **Store in approved, flame-resistant containers** that meet local regulations.
- **Incompatible materials:** Keep away from **oxidizers, acids, alkalis, and strong reducing agents**.
- **Ground/bond storage containers** to prevent static buildup.
- **Label containers properly** and inspect regularly for leaks or damage.

8. Occupational Exposure Limits:

- **Ethyl Acetate:**
 - **OSHA PEL:** 400 ppm (TWA)
 - **ACGIH TLV:** 400 ppm (TWA); 1400 ppm (STEL)
- **Ensure compliance with all relevant local, state, and federal regulations** concerning exposure limits for paints and coating materials. Monitor the workplace to maintain exposure levels below these limits.

Personal Protective Equipment (PPE):

- **Eye Protection:**
 - Use **safety goggles** or **face shield** to prevent eye contact with vapors or splashes.
- **Skin Protection:**
 - Use **chemical-resistant gloves** (e.g., nitrile, neoprene, or butyl rubber) to prevent skin contact.
 - Wear **long-sleeved clothing** and **protective aprons** if necessary to minimize skin exposure.
- **Respiratory Protection:**
 - If exposure limits are exceeded or in poorly ventilated areas, use a **NIOSH-approved organic vapor respirator**. Ensure the respirator is suitable for the specific chemicals present.

- **Additional Protective Measures:**
 - Wash hands and exposed skin thoroughly after handling.
 - Ensure that **emergency showers and eyewash stations** are readily available in the work area.

9. Physical and Chemical Properties

- **Appearance** Dark Gray Liquid
- **Odor:** Strong, characteristic odor (due to ethyl acetate)
- **pH:** 6
- **Boiling Point:** 80°C (176°F)
- **Flash Point:** 25°C (77°F)

10. Stability and Reactivity

- **Reactivity:** Not reactive under normal conditions.
- **Chemical Stability:** Stable under normal storage conditions.
- **Hazardous Reactions:** None known.
- **Conditions to Avoid:** Avoid exposure to high temperatures, open flames, and incompatible materials.
- **Incompatible Materials:** Strong oxidizing agents and acids.
- **Hazardous Decomposition Products:** In case of fire, hazardous combustion products may include carbon oxides and other toxic fumes.

11. Toxicological Information

- **Likely Routes of Exposure:** Skin, eyes, and ingestion.
- **Symptoms:**
 - **Skin Contact:** May cause irritation, redness, or dryness.
 - **Eye Contact:** May cause irritation, redness, or discomfort.
 - **Ingestion:** May cause gastrointestinal discomfort.
- **Long-Term Effects:** Once dry, the risks associated with skin, eye, and respiratory exposure — including narcotic effects — are significantly reduced; however, prolonged contact with dry material may still cause mild irritation in sensitive individuals.

12. Ecological Information

- **Eco-toxicity:** Not classified as hazardous to the environment.
- **Persistence and Degradability:**
 - The product contains a mixture of components with varying degrees of persistence in the environment.
 - Overall, the formulation is designed to minimize environmental impact, with key ingredients exhibiting moderate to low persistence.
 - The components of the product are generally biodegradable and are expected to break down through natural processes under typical environmental conditions.
- **Bioaccumulation Potential:** Low potential for bioaccumulation based on the components.



- **Mobility in Soil:** Components are expected to have low to moderate mobility in soil, minimizing the risk of groundwater contamination.

13. Disposal Considerations

- **Waste Disposal Methods:** Dispose of in accordance with local, regional, and national regulations.

14. Transport Information

- **UN Number:** UN 1993.
- **Proper Shipping Name:** Flammable liquid, n.o.s. (contains ethyl acetate, silicone polymer).
- **Proper Shipping name**
- **Transport Hazard Class:** 3
- **Packing Group:** II
- **DOT / IATA / IMDG:** Regulated as hazardous materials.

15. Regulatory Information

❖ Federal Regulations:

This product is regulated under various federal laws, including but not limited to:

- **Toxic Substances Control Act (TSCA):** Regulates the introduction of new or already existing chemicals.
- **Occupational Safety and Health Administration (OSHA):** Establishes guidelines for hazardous substances and workplace safety.
- **Consumer Product Safety Act:** Ensures consumer products are safe for use.
- **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA):** Governs the regulation of pesticide products, if applicable.

- ❖ **State Regulations:** Users are advised to comply with all relevant state and local regulations regarding the handling, use, storage, and disposal of this product. Specific requirements may vary by state, and users should consult their local regulatory agencies for more information.

16. Other Information

- **Disclaimer:** The information provided in this SDS is believed to be accurate and reliable as of the date issued. However, no warranty is expressed or implied regarding its completeness or accuracy. Users are responsible for determining the suitability of the information for their own purposes. SilexCore Technologies and SPARKNIT INC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.silexcore.com or contact us for more information about additional terms and conditions of sale.
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