

# SPI Supplies Division

Structure Probe, Inc.

P.O. Box 656 West Chester, PA 19381-0656 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

[spi3spi@2spi.com](mailto:spi3spi@2spi.com)

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

# Safety Data Sheet

Date Effective: December 5, 2014

05051-AB

Vacseal® Vacuum Leak Sealant, Aerosol, Clear

---

## Section 1: Identification

Chemical Name/Synonyms..... Silicone resin solution of chlorinated and non-chlorinated organic solvents

Chemical family..... mixture

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name..... Vacseal® Vacuum Leak Sealant, Aerosol, Clear

CAS #'s..... 79-01-6; 75-09-2; 811-97-2; 1330-20-7; 100-41-4

Chemical Formula..... mixture

## HAZARDS IDENTIFICATION

### Emergency Overview

OSHA Hazards

Carcinogen, Irritant, Target Organ Effect, Mutagen

Target Organs

Liver, Kidney, Pancreas, Blood, Central nervous system, Heart, Lungs, Eyes

GHS Classification

Acute toxicity, Oral (Category 5)

Acute toxicity, Dermal (Category 5)

Skin irritation (Category 2)

Serious eye damage (Category 1)

Germ cell mutagenicity (Category 2)

Carcinogenicity (Category 1B)

Specific organ toxicity – single exposure (Category 2)

Specific organ toxicity – repeated exposure (Category 2)

Acute aquatic toxicity (Category 3)

Chronic aquatic toxicity (category 3)

GHS Label elements, including precautionary statements

Pictogram



Signal word: Danger

Hazard statement(s):

- H303 + H313: May be harmful if swallowed or if in contact with skin.
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H350: May cause cancer.
- H371: May cause damage to organs.
- H412: Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

- P260: Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P273: Avoid release to the environment.
- P281: Wear protective gloves/ eye protection/ face protection.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313: If exposed or concerned: Get medical advice/ attention.

Hazardous Material Information System USA

- Health..... 2
- Fire Hazard..... 1
- Reactivity..... 1
- Personal Protection.....

NFPA Rating (estimated)

- Health..... 2
- Flammability..... 1
- Reactivity..... 1

---

## Section 2: Composition

Chemical characterization: Silicone Solution

Physical Form: Liquid – Resin solids are 14% by weight.

Color: Colorless to pale yellow

Use: Sealing leaks in high and ultra high vacuum systems.

Hazardous Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>EC Number</u>	<u>% (w/w)</u>
Trichloroethylene	79-01-6	201-167-4	30 – 60
Dichloromethane	75-09-2	20-838-9	15 – 30
1,1,1,2-Tetrafluoroethane	811-97-2	212-377-0	10 – 20
Xylene	1330-20-7	215-535-7	5 -10

---

## Section 3: Hazard Identification

Overall Hazard Classification: Combustible, Irritant, Harmful

Hazard Information:

Health Rating: 2 – Moderate (Poison)

Flammability Rating: 1 – Slight

Reactivity Rating: 1 – Slight

Contact Rating: 3 – Severe

Lab Protective Equipment: Goggles & Shield, Lab Coat, Vent Hood, Proper Gloves

Storage Color Code: Blue (Health)

Routes of Exposure: Skin Contact and Accidental Ingestion

Possible Health Effects:

### Acute

**Eyes:** Vapor may cause eye irritation. Direct contact may cause severe irritation.

**Skin:** May cause moderate irritation.

**Inhalation:** Vapor may irritate nose and throat. Overexposure by inhalation may cause drowsiness, dizziness, confusion, or loss of coordination.

### Chronic

**Skin:** Overexposure may injure internally if absorbed. Prolonged exposure may cause serious irritation.

**Inhalation:** Overexposure by inhalation may injure the following organs:  
Blood, lungs, liver, kidneys, nervous system

**Ingestion:** Repeated ingestion or swallowing large amounts may injure internally.

### Signs and symptoms of overexposure:

Vapor exposure may cause drowsiness and irritate throat. Overexposure may cause dizziness, confusion or loss of coordination.

---

## Section 4: First Aid Measures

**Eyes:** Flush with water 15 minutes. Get medical attention.

**Skin:** Wipe off and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation develops or persists.

**Inhalation:** Remove to fresh air. Get medical attention if ill effects develop or persist.

**Ingestion:** Get medical attention immediately. Do not induce vomiting.

---

## Section 5: Fire Fighting Measures

**Flammability:** Not Flammable in air at temperatures up to 100°C. However, it can become combustible with elevated temperature and/or pressure in the presence of an ignition source.

**Flash Point:** Not determined.

**Autoignition Temperature:** Not determined.

**Lower Flammability Limit:** Not determined.

**Upper Flammability Limit:** Not determined.

**Hazardous Properties:** Cylinders may rupture, explode or become a projectile under fire conditions.  
Exposure to strong oxidizing agents can cause fire or explosion.  
Reacts violently with oxidizing agents.  
Can cause fire when in contact with open flame or excessive heat.  
Toxic vapor.  
Irritating to eyes, mucous membranes or skin, and may cause burning.  
Narcotic, or its vapor is narcotic.

**Extinguishing Media:**

Dry Chemical, water fog, foam, carbon dioxide, water.

**Special Firefighting Procedure:**

Wear self-contained breathing apparatus due to thermal decomposition of products. Protective clothing should be worn.

**Hazardous Combustion Products:**

Carbon oxides and traces of incompletely burned carbon compounds; silicon dioxide; metal oxides; formaldehyde.

**Unsuitable Extinguishing Media:** None established.

## Section 6: Accidental Release Measures

**Personal Precautions:**

Avoid skin and eye contact; avoid breathing vapor, mist, dust or fumes; keep container closed.  
Do not take internally.

**Environmental Precautions:**

Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

**Spill Response:**

Remove all sources of ignition. Wear protective equipment. Use absorbent material to collect and contain for salvage or disposal. Use chemical splash goggles and gloves. Use respiratory protection unless exhaust ventilation is adequate or air sample data exposures are within TLV and PEL guidelines. Remove contaminated clothing and shoes as soon as practical and clean before reuse.

---

## Section 7: Handling and Storage

**Handling Precautions:**

Use with adequate ventilation. Traces of benzene (carcinogen) may form if heated in air above 149°C. Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Avoid skin and eye contact. Avoid breathing vapor. Exercise good industrial hygiene

practice. Wash after handling, especially before eating, drinking, or smoking.

**Storage Conditions:**

Keep container closed and away from heat. Do not store near flame or other source of ignition.

---

## Section 8: Exposure Controls and Personal Protection

**Industrial Hygiene Standards:**

<u>Ingredients</u>	<u>CAS No.</u>	<u>Exposure Limits</u>
Trichloroethylene	79-01-6	OSHA PEL 100 ppm 8 Hr (TWA) ACGIH TLV 50 ppm 8 Hr (TWA) 100 ppm (STEL)
Dichloromethane	75-09-2	OSHA PEL 25 ppm 8 Hr (TWA) ACGIH TLV 50 ppm 8 Hr (TWA) 125 ppm (STEL)
Xylene	1330-20-7	OSHA PEL 100 ppm 8 Hr (TWA) ACGIH TLV 100 ppm 8 Hr (TWA) 150 ppm (STEL)
Ethylbenzene	100-41-4	OSHA PEL 100 ppm 8 Hr (TWA) ACGIH TLV 100 ppm 8 Hr (TWA) 125 ppm (STEL)

**Engineering Controls:**

Local ventilation – recommended  
General ventilation – recommended

**Personal Protective Equipment:**

Respiratory:

Use appropriate respiratory (Organic Vapor/ Dust/ Mist) protection unless adequate local exhaust ventilation is provided or air sampling data show exposure is within exposure guidelines.

Eye: Use Chemical Splash Goggles.

Skin: Use protective clothing, chemical gloves, and long sleeves.

Hygiene Measures:

Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse.

---

## Section 9: Physical and Chemical Properties

Physical Form:	Liquid
Color:	Colorless to pale yellow
Odor:	Solvent odor
pH:	Not determined
Solubility in water:	Not determined
Boiling point:	> 100° C
Melting point:	Not determined
Flash Point:	Not determined
Autoignition temperature:	Not determined

Explosive properties:	No
Oxidizing properties:	No
Vapor pressure @ 25°C:	Not determined
Specific gravity:	1.010
Octanol/water partition coeff.:	Not determined
Vapor density (air=1):	Not determined
Viscosity:	105 cSt
Molecular Weight:	Not determined

---

## Section 10: Stability and Reactivity

Stability: Stable

Reactivity:

Conditions to avoid:	None
Materials to avoid:	Oxidizing material can cause a reaction.
Hazardous decomposition:	Carbon oxides and traces of incompletely burned carbon compounds.
Hazardous polymerization:	Does not occur.
Products:	Silicone dioxide. Metal oxides. Formaldehyde.

---

## Section 11: Toxicological Information

Possible health effects: Refer to Section 3.

Sensitizing Effects: None known

Mutagenic Effects:

Note that CAS# 79-01-6 Trichloroethylene has possible germ cell mutagenicity.

Reproductive Effects: None known

Carcinogenic Effects:

Note that components CAS# 79-01-6 Trichloroethylene, CAS# 75-09-2 Dichloromethane, and CAS# 1330-20-7 Xylene have possible carcinogenicity.

Other Health Hazard: No known applicable information.

---

## Section 12: Ecological Information

### Environmental Fate and Distribution:

Organic solvents may evaporate into the atmosphere, where they degrade. Siloxanes are removed from water by sedimentation or binding to sewage sludge. In soil siloxanes are degraded.

### Environmental Effects:

No adverse effects on aquatic organisms are predicted.

Bioaccumulation: Potential to bioaccumulate.

### Fate and effects in Waste Water Treatment Plants:

No adverse effects on bacteria are predicted. The siloxanes in this product do not contribute to the BOD. The organic solvents in the product are poorly biodegradable.

---

## Section 13: Disposal Considerations

Dispose of product and package in accordance with all local, state and federal regulations.

---

## Section 14: Transport Information

### Non-aerosol form of the product:

Proper Shipping Name: Silicone resin solution  
DOT Hazard Class: 2.2  
UN/NA ID: 1950  
Packing Group: III  
Labels: Aerosol, Non-Flammable N. O. S.  
Marine Pollutant: Probably not because of its very low solubility in water of the final cured resin. Other solvents evaporate quite quickly.  
NAER Guidebook: Not Regulated  
DOT Status: Regulated

---

## Section 15: Regulatory Information

### Chemical Inventories:

TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA inventory.

TSCA 12 (b): No

SARA: 311/312: Acute, yes  
Chronic, yes  
Fire, no  
Pressure, no  
Reactivity, no

### California Prop. 65:

This product contains an ingredient known by the State of California to cause cancer or reproductive damage:

Trichloroethylene	79-01-6	OSHA PEL 100 ppm 8 Hr (TWA) ACGIH TLV 50 ppm 8 Hr (TWA) 100 ppm (STEL)
-------------------	---------	--

---

## Section 16: Other Information

### Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. [Copyright Policy](#). Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.