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 Manufacturer's Cage: 1P573

## Material Safety Data Sheet

**SPI # 05049-AB, 05050-AB, 05052-AB, 05053-AB**

**Vacseal® High Vacuum Leak Sealant**

### Section 1 Identification

**Date Effective**

June 7, 2010  
 (most recent revision)

**Chemical Name/Synonyms**

Silicone resin solution of chlorinated  
 and non-chlorinated organic solvents

**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**

SPI #05049-AB, 05052-AB, 05053-AB, 05050-AB  
 Vacseal® High Vacuum Leak Sealant



### Section 2: Composition

**Non-hazardous Components:**

Ingredient Name	Concentration, %
Silicone polymers	15-25%

**Hazardous Components:**

CAS #	Ingredient Name	Concentration, %	EINECS#
79-01-6	Trichloroethylene	30-60 %	201-167-4
1330-20-7	Xylene	15-30 %	215-535-7
100-41-4	Ethyl benzene	5 - <15 %	202-849-4

**NFPA Rating** (estimated) Health 2; Flammability 3; Reactivity 1

**HMIS:** Health: 2; Flammability: 1; Reactivity: 3; Contact: 3

### Section 3 Hazard Identification

**Potential health effects (acute and chronic):**

**Routes of entry:**

**Eye:** Direct contact irritates slightly with redness and swelling.

**Health Hazards**

**(acute and chronic):** The degree of injury depends on the duration of exposure.

**Inhalation:** Vapors may injure lungs, blood, liver, kidneys, and nervous system.

**Skin:** A single relatively short exposure irritates. Repeated prolonged contact irritates seriously. Over exposure may irritate internally.

**Ingestion:** Small amounts transferred to the mouth by fingers should not injure. Swallowing large amounts will injure seriously.

**Signs and symptoms of exposure:**

Prolonged over exposure may injure lungs, kidneys, liver, blood, and nervous system and aggravate existing eye, skin and respiratory disorders.

**Medical condition aggravated by exposure:**

Short vapor exposure may cause drowsiness and irritate throat.

**Routes of entry:** Inhalation, ingestion or skin contact.

**Carcinogenicity:**

Not determined

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**Section 4: First Aid Measures****Emergency and first aid procedures:**

Take proper precautions to ensure your own health and safety before attempting to rescue and providing first aid. These practices include avoiding all unnecessary exposure and removal of the material from eye, skin and clothing.

**Inhalation:**

If symptoms are experienced, move victim to fresh air, if symptoms persist, obtain medical attention. Medical assistance should be obtained at once.

**Eye contact:**

Wash eyes with clean low pressure water for fifteen minutes. Seek medical assistance without delay. After all, this is a leak sealant and one should not have curing silicone in their eyes.

**Skin contact:**

If the polymer should contact the skin, wipe off and wash with plenty of water.

**Ingestion:**

This route of exposure is not anticipated. However, cured silicone resins are not perceived to be highly toxic in the body. Nevertheless, get medical attention immediately. Do not induce vomiting. Prevent aspiration of liquid into lungs. Never give anything by mouth to an unconscious person.

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**Section 5: Fire Fighting Measures**

**Fire Extinguishing Media:**

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

**Special Firefighting Procedure:**

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

**Unusual Fire and explosion hazards:**

Vapors are heavier than air and can travel along the ground to remote areas.

**Fire And Explosion Hazard Data**

Flash Point..... Not Determined  
Flammable Limits in Air... Flammable limit in air, % by vol.  
(trichloroethylene)  
LEL (Lower Explosive Limit) : Unknown  
UEL (Upper Explosive Limit) : Unknown

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**Section 6: Accidental Release Measures****Spill Response:**

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

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**Section 7: Handling and Storage****Precautions to be taken in handling and storing:**

Keep container closed and away from heat.

**Other precautions:**

When processing at elevated temperatures, provide ventilation to control exposures within OSHA and ACGIL limits. Aerosol or spray applications may require added precautions. Evolution rate is highest during the first few hours, then subsequently approaches zero.

Do not store near heat of flame or other source of ignition (e.g. Electrical wiring or motors).

**Other:** Keep container tightly closed. Store in cool dry well ventilated area.

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**Section 8: Exposure Controls and Personal Protection**

**Handling and Storage:**

Do not store neat heat of flame or other source of ignition (e.g. Electrical wiring or motors).

Use protective rubber or plastic gloves when handling to avoid skin contact. Always use proper eye protection. Keep protective clothing in good clean condition and clean thoroughly after each use.

**Engineering Controls:**

Use only in well ventilated area in order to prevent the build up of vapors or fumes.

**Personal Protection:**

Inhalation: Use appropriate respiratory protection when using the product in aerosol form. Avoid breathing the vapors of the product.

Skin: Use protective clothing such as long sleeves or a lab coat.

Eye: Always use safety glasses, preferably chemical goggles when using any form of this product.

**Section 9: Physical and Chemical Properties**

Physical Form . . . . .	Liquid
Color . . . . .	Colorless to pale yellow
Boiling Point.(Trichloroethylene)..	760 mm Hg : 86.7°C
Formula Weight.....	Not determined
Coeff. of Water/Oil Dist.	Not determined
pH (Liquids Only).....	Not determined
% Volatile By Volume.....	Not determined
Melting Point.....	Not applicable
Vapor Pressure (Trichloroethylene).at 20°C.....	Not determined
Vapor Density/Air is 1...	Not determined
Solubility In Water.....	Less than 0.1%
Appearance and Color.....	Clear colorless liquid, typically mildly sweet odor
Specific Gravity (Trichloroethylene) at 25°C (77°F)...	(H2O = 1): 1.010
Evaporation Rate.....	(n-butyl acetate = 1): Not determined
Odor.....	Mildly sweet
Viscosity . . . . .	105 cSt

**Section 10: Stability and Reactivity**

**Stable:** Yes

**Hazardous Polymerization:**

Does not occur.

**Hazardous Decomposition Products:**

CO<sub>x</sub> (Carbon Dioxide / Carbon Monoxide), silicon dioxide and incompletely burned carbon based products.

**Conditions to avoid:**

Heat and high temperatures.

**Materials to avoid:**

Oxidizing and caustic alkalis can cause a reaction under certain conditions.

## Section 11: Toxicological Information

**Hazardous Components:**

CAS #	Ingredient Name	OSHA PEL	ACGIH TLV	ACGIH STEL
79-01-6	Trichloroethylene	100ppm	50ppm	100ppm
1330-20-7	Xylene	100ppm	100ppm	150ppm
100-41-4	Ethyl benzene	100ppm	100ppm	150ppm

**Potential health effects (acute and chronic):**

**Routes of entry:**

Eye: Direct contact irritates slightly with redness and swelling.

**Health Hazards**

(acute and chronic): The degree of injury depends on the duration of exposure.

Inhalation: Vapors may injure lungs, blood, liver, kidneys, and nervous system.

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**Signs and symptoms of exposure:**

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**Medical condition aggravated by exposure:**

Short vapor exposure may cause drowsiness and irritate throat.

Routes of entry: Inhalation, ingestion or skin contact.

**Carcinogenicity:**

Not determined

## Section 12: Ecological Information

**Exotoxicity:**

Exotoxicity is expected to be low based the fact that solvents evaporate quickly and the silicone polymerizes into an inert

substance with virtually no water solubility. No other information is known on this topic.

**Environmental Fate:**

No information found in our selected references.

**Bioaccumulation:**

Not expected to occur.

**Section 13: Disposal Considerations**

**Disposal considerations:**

All local, state, federal or other regulations concerning health and pollution should be reviewed to determine approved disposal procedures.

**Section 14: Transport Information**

**Non-aerosol form of the product:**

Proper Shipping Name: Silicone resin solution  
 DOT Hazard Class: Flammable Liquid 3  
 UN/NA ID: UN 1866  
 Packing Group: II  
 Labels: Not Regulated  
 Marine Pollutant: Probably not because of its very low solubility in water of the final cured resin. Other solvents evaporate quite quickly.  
 DOT Status: Regulated

**Section 15: Regulatory Information**

**TSCA:** All components of this product are listed on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification Rule, they will be listed below.

**TSCA 12(b):** none

**SARA Title 3:**

**SARA Codes:**

CAS# 100-41-4 Ethyl benzene: immediate, delayed, fire

**Section 311/312:**

Acute: yes      Chronic: yes      Fire: no      Pressure: no      Reactivity: no

**Section 313:**

This material contains CAS# 100-41-4, Ethyl benzene, which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**CERCLA Hazardous Substances and their Reportable Quantities:**

Component	Reportable Quantity
Ethyl benzene	1000 lb final RQ; 454 kg final RQ

**Clean Air Act:**

CAS# 79-01-6 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**

CAS# 79-01-6 is listed as a Hazardous Substance under the CWA.

CAS# 79-01-6 is listed as a Priority Pollutant under the Clean Water Act.

CAS# 79-01-6 is listed as a Toxic Pollutant under the Clean Water Act.

**STATE RIGHT TO KNOW LISTS:**

CAS# 79-01-6 is listed on CA, NJ, MA, MN, PA

CAS# 1330-20-7 is listed on CA, NJ, MA, MN, PA

CAS# 100-41-4 is listed on CA, NJ, MA, MN, PA

**WGK (Water Danger/Protection):**

CAS# 79-01-6: 3

CAS# 1330-20-7: 2

CAS# 100-41-4: 1

**California Prop. 65:**

Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity, it will be listed below:

79-01-6 Trichloroethylene

100.41.4 Ethyl benzene

**California No Significant Risk:**

CAS# 79-01-6 is listed.

**CANADA:**

**WHMIS:**

CAS# 79-01-6 Trichloroethylene: D1B, D2B

CAS# 1330-20-7 Xylene: n/a

CAS# 100-41-4 Ethyl benzene: B2, D1B, D2B

**DSL/NDL LIST:**

CAS# 79-01-6 is on the DSL List

CAS# 1330-30-7 is on the DSL List

CAS# 100-41-4 is on the DSL List

**European/International Regulations**

European Labeling in Accordance with EC Directives

**Hazard Symbols:**

T Toxic            Xn Harmful            F Flammable

**Risk Phrases:**

R10 Flammable

R20 Harmful by inhalation

R21 Harmful in contact with skin

R36 Irritating to eyes

R38 Irritating to skin

R45 May cause cancer

R52 Harmful to aquatic organisms

R53 May cause long-term adverse effects in the aquatic environment

R67 Vapors may cause drowsiness and dizziness

**Safety Phrases**

S2 Keep out of reach of children

S16 Keep away from sources of ignition - NO SMOKING

S24 Avoid contact with skin

S25 Avoid contact with eyes

S29 Do not empty into drains

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S53 Avoid exposure - obtain special instructions before use

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets

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**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.

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Search  
**SPI Navigator**  
Index

**Return to:**

- [SPI Supplies MSDS Sheets Table of Contents](#)
- [Vacseal Main Page](#)
- [Vacuum Sealants Table of Contents](#)
- [SPI Supplies Catalog Table of Contents](#)
- [SPI Supplies Home Page](#)

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