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Manufacturer's Cage: 1P573



Material Safety Data Sheet

SPI # 05051-AB VACSEAL® High Vacuum Leak Sealant

Section 1 Identification

Date Effective

January 20, 2003
(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 #05051-AB VACSEAL® High Vacuum Leak Sealant



Section 2: Composition

CAS #	Ingredient Name	OSHA PEL	ACGIH TLV	Concentration, %
75-09-2	Dichloromethane	500 ppm	50 ppm	5-25
79-01-6	Trichloroethylene	100	50	20-50
1330-20-7	Xylene	100	100	10-30
8052-41-3	Stoddard Solvent	(trace)	100	0.1-1.0
71-43-2	Benzene	(trace impurity)	1	Less than 0.1
33204-76-1	2,6-cis-diphenylhexamethyl cyclotetrasiloxane	(trace)	0.7 mg/3	Less than 0.1
10448-09-6	Phenylheptamethyl cyclotetrasiloxane	(trace)	1.8 ppb(skin)	Less than 0.1

Balance of solution isw non-hazardous and proprietary:
See OSHA 29 CFR 1910.1200

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 cause injury. 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

Section 4: First Aid Measures

Emergency and first aid procedures:

Skin: Wipe off and flush with water.

Eyes: Immediately flush thoroughly with water for at

least 15 minutes.

Inhalation: Remove to fresh air. Artificial respiration if breathing has stopped. Get medical attention immediately if symptoms persist.

Ingestion: Get medical attention immediately. Do not induce vomiting. Prevent aspiration of liquid into lungs. Never give anything by mouth to an unconscious person.

Section 5: Fire Fighting Measures

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. Inhalation of the mist from the aerosol form could potentially be very dangerous and even life-threatening. After all, this is a vacuum leak sealant and one can only imagine what a vacuum sealant could do to the capacity of the lungs to exchange oxygen. Medical assistance should be obtained at once.

Eye contact:

Wash eyes with clean low pressure water. Seek medical assistance without delay.

Skin contact:

If the polymer should contact the skin from either the aerosol or non-aerosol form, wash with plenty amounts 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, medical advice should be obtain at once.

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. Try to remove any aerosol cans from the path of the first because aerosol cans, when over heated, will explode.

Fire And Explosion Hazard Data

Flash Point..... None (Trichloroethylene)
Flammable Limits in Air... Flammable limit in air, % by vol. (trichloroethylene)
LEL (Lower Explosive Limit) : 10.5%
UEL (Upper Explosive Limit) : 8.9%

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.

Section 7: Handling and Storage

Precautions to be taken in handling and storing:

Keep container closed and away from heat. In the case of the aerosol form of the product, this is even more important because shelf life of the product will be greatly extended if not exposed to warmer temperatures.

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 neat 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.

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 in either product form.

Skin: Use protective clothing such as long sleeves or a lab coat. This is especially recommended when using the aerosol form of the product but good practice when using any form of the product.

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

Section 9: Physical and Chemical Properties

Boiling Point: (Dichloromethane/Trichloroethylene)760 mm Hg: 121°C (250°F)

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 (Dichloromethane) at 20°C (in mm Hg): 13

Vapor Density (Dichloromethane, Air is 1): 5.8

Solubility In Water..... Less than 0.1%

Appearance and Color..... Clear colorless liquid, typically mildly sweet odor

Specific Gravity (Water = 1) at 25°C (77°F): 1.62

Evaporation Rate..... (n-butyl acetate = 1): Not determined

Odor..... Mildly sweet

Section 10: Stability and Reactivity**Stable:** Yes**Hazardous Polymerization:**

Does not occur.

Hazardous Decomposition Products:

COx (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	Other	limits
79-01-6	Trichloroethylene	100 ppm	50 ppm	STEL	100 ppm
064742898	Naphtha petroleum	100 ppm	100 ppm		
000097858	Isobutyl isobutyrate	N/A			
108419-34-7	Acetate ester	N/A			
108-88-3	Toluene	100 ppm	100 ppm	STEL	150 ppm
71-43-2	Benzene(trace impurity)	1 ppm	10 ppm	STEL	5 ppm
	Silicone polymers				

Potential health effects (acute and chronic):**Routes of entry:**

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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: 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

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) Component	Listed under TSCA Section
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SARA Title 3: Section 313 Information/Emissions Reporting (**40 CFR 372**):
 This product contains chemicals that are subjects to SARA section reporting requirements

CERCLA Hazardous Substances and their Reportable Quantities:

Component	Reportable Quantity
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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 ppm	50 ppm	STEL	100 ppm
108-88-3	Toluene	100 ppm	100 ppm	STEL	150 ppm
71-43-2	Benzene	1 ppm	10 ppm	STEL	5 ppm

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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