

Material Safety Data Sheet

PVC CUT-EDGE SEALANT

MSDS No. 307754

Date of Preparation: 05/10/14

Revision: 005

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: PVC CUT-EDGE SEALANT

Chemical Formula: Mixture

CAS Number: None Assigned

Other Designations:

General Use: To Seal Cut Edges of Reinforced PVC Membrane

Manufacturer: Carlisle SynTec, 1285 Ritner Highway, Carlisle, PA 17013, Phone: 800-4SYNTEC

Emergency Phone Number: CHEMTREC (USA) 800-424-9300

Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

This material is HAZARDOUS by OSHA Hazard Communication definition

Danger- Extremely flammable liquid and vapor

Warning- Causes skin irritation

Warning- Causes eye irritation

Warning- May be harmful if swallowed and enters airways

Warning- May cause damage to heart, lungs, kidney, liver and central nervous system through prolonged or repeated exposure.

Potential Health Effects

Primary Entry Routes: inhalation, skin/eye contact and ingestion

Target Organs: This material may aggravate pulmonary/bronchial disease and/or cause breathing difficulty. Tetrahydrofuran – Repeated or prolonged exposure may cause signs of central nervous system depression and respiratory irritation. This material has been shown to induce tumors in laboratory animals. Butylated Hydroxy Toluene – No adverse chronic effects have been reported for this material.

HMIS
H 2
F 3
R 1
PPE [†]
[†] Sec. 8

Acute Effects

Inhalation: Overexposure may cause coughing, shortness of breath, dizziness, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes. Inhaling mist may produce signs of central nervous system involvement.

Eye: Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation.

Skin: Prolonged or repeated contact may cause skin to become dry or cracked. Causes dermatitis. Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a health hazard by skin absorption.

Ingestion: Swallowing this material may result in a health hazard.

Carcinogenicity: IARC, NTP, and OSHA do not list this product as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: Pre-existing respiratory and skin disorders; CNS, heart liver and/or kidney disease.

Chronic Effects: Prolonged, excessive exposure to vapors may cause nervous system, heart, lungs, kidney, and liver damage, and repeated or prolonged exposure will defat the skin, causing drying, cracking and dermatitis.

Section 3 – Ingredient Information

Hazardous Ingredients	CAS Number	% wt
Tetrahydrofuran (THF)	109-99-9	60-100
Vinyl Polymer Compound	Mixture	10 – 30
(2-Hydroxy-4-(octyl)-phenyl)phenylmethanone	1843-05-6	0.1 – 1.0
Butylated Hydroxy Toluene	128-37-0	< 0.1

Section 4 - First Aid Measures

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately. Respiratory symptoms associated with pre-existing lung disorders, skin allergies, and pre-existing heart disorders may be aggravated by exposure to this material.

Eye Contact: Immediately flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower lids. If pain or irritation persists, promptly obtain medical attention.

Skin Contact: Immediately flush skin with running water and remove contaminated clothing. Wash exposed area with soap and water. Seek medical attention if ill effect or irritation develops.

Ingestion: DO NOT induce vomiting. Risk of damage to lungs exceeds poisoning risk. If large quantity swallowed, give lukewarm water (pint/1/2 liter) ONLY if victim is completely conscious/alert. Obtain emergency medical attention.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: Skin contact may aggravate existing dermatitis. Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Special Precautions/Procedures: Use away from all sources of heat, flame or sparks. Do not smoke while using. Handling equipment must be grounded to prevent sparking. Handle with non-sparking tools. Wash with soap and water before eating or drinking. Launder contaminated clothing. KEEP OUT OF REACH OF CHILDREN.

Section 5 - Fire-Fighting Measures

Flash Point: 1°F (-17°C)

Flash Point Method: TCC

Burning Rate: N/A

Autoignition Temperature: 321°C (610°F)

LEL: 2%

UEL: 11.8%

Flammability Classification: Division 3

Extinguishing Media: SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam.

LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

DO NOT USE SOLID WATER STREAM

Unusual Fire or Explosion Hazards: Vapor may form flammable atmosphere in confined spaces or low areas. Pressure build-up may also occur in closed, heated containers. Water spray or fog should be used to keep containers cool.

Hazardous Combustion Products: Carbon monoxide and carbon dioxide.

Fire-Fighting Instructions: This product contains solvents that are dangerous fire and explosion hazards when exposed to heat or flame. Fire fighters should wear self-contained breathing apparatus and full protective clothing with a full face piece operated in the positive pressure demand mode. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode. Structural firefighter's protective clothing will only provide limited protection.



Section 6 - Accidental Release Measures

Containment Procedures: Remove all sources of ignition. Evacuate and ventilate spill area. Dam spill area with sand, earth or other suitable absorbent. Prevent entry of materials into sewers, other water sources, or land areas. Wear full protective clothing and respiratory protection during clean-up as required to maintain exposures below the applicable exposure limit. Shovel absorbed material into containers in well-ventilated area. All equipment used when handling this product must be grounded. Do not touch or walk through spilled material.

Disposal: This product is classified as ignitable hazardous waste by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261: Waste # D001). Dispose of spilled material in accordance with federal, state and local regulations in a hazardous waste facility. Incineration is the preferred method of disposal. Empty containers must be handled with care due to product residue. Decontaminate empty containers prior to disposal. Do not heat or cut empty containers with electric or gas torch. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

Section 7 - Handling and Storage

Storage/Handling: For industrial use only. Keep container tightly closed when not in use. Extinguish all ignition sources. Use protective equipment as described in section 8 of this material safety data sheet when handling **uncontained** material.

Warehouse storage should be in accordance with package directions, if any. Material should be kept cool and dry and protected from the elements. Store in tightly closed containers to prevent contamination. Handle with non-sparking tools. Store at 15.5-32.2°C (60-90°F) and out of the sun.

Conditions to Avoid: Keep away from ignition sources, such as heat, sparks, pilot lights, static electricity and open flames. Containers exposed to elevated temperatures may develop pressure build-up and rupture.

Section 8 - Exposure Controls / Personal Protection

Hazardous Ingredients:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Tetrahydrofuran	200 ppm	250 ppm	200 ppm	250 ppm	200 ppm	250 ppm	2000 ppm
Vinyl Compound Polymer	None estab	None esta	None estab	None estab	None estab	None estab	None estab
(2-Hydroxy-4-(octyloxy)-phenyl)methanone	None estab	None estab	None estab	None estab	None estab	None estab	None estab
Butylated Hydroxy Toluene	None estab	None estab	2 mg/m ³	None estab	None estab	None estab	None estab

Summary: Protective equipment should be provided as necessary to prevent inhalation of vapors, prolonged skin contact, and to keep exposure levels below the applicable exposure limits identified in Section 2.

Ventilation: Local exhaust or general dilution ventilation may be required to maintain exposures below the applicable exposure limits. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

Respiratory Protection: Use a NIOSH approved organic respirator to protect against inhalation of vapors. A respirator should be used if ventilation is unavailable, or is inadequate for keeping vapor levels below the applicable exposure limits.

Eye: Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles or vapor.

Skin: Depending on conditions of use, protective gloves, apron, boots, head and face protection should be worn. Permeation gloves (that meet ANSI/ISEA 105-2005) required.

Other: Emergency eye wash and safety shower should be available in the immediate vicinity of any potential exposure. Wash hands before eating, drinking, smoking, applying cosmetics (including contact lenses) or using toilet facilities.

Special Considerations for Repair/Maintenance of Contaminated Equipment. Use personal protective equipment as discussed above.

Section 9 - Physical and Chemical Properties

Physical State: Liquid.

Appearance and Odor: Clear liquid with chemical odor.

Odor Threshold: Not determined

Vapor Pressure: Not determined

Vapor Density (Air=1): >1

Formula Weight:

Density: 7.8 lbs/gal @ 77°F

Specific Gravity (H₂O=1, at 4 °C): 0.93

pH: Not determined

VOC: 737 grams per liter

Water Solubility: Not determined

Other Solubilities:

Boiling Point: 66-156°C/151-312°F

Freezing/Melting Point (°C): Not determined.

Viscosity: Not determined

% Volatile: 80 - 82

Evaporation Rate(nBuAc=1): Not determined

Flash Point: 1°F (-17°C)

Flash Point Method: TCC

Burning Rate: N/A

Autoignition Temperature: 321°C

LEL: 2%

UEL: 11.8%

Section 10 - Stability and Reactivity

Stability: This product is stable with an appropriate level of butylated hydroxyl toluene inhibitor (minimum 200 ppm)

Possibility of Hazardous Reactions: May occur.

Chemical Incompatibilities: Reacts vigorously with strong oxidizers and acids.

Conditions to Avoid: Heat, sparks, and flames; ignition sources.

Hazardous Decomposition Products: Carbon monoxide, and carbon dioxide.

Section 11- Toxicological Information

This product has not been tested as a separate entity. Therefore, the hazards must be evaluated on the basis of the individual ingredients, and those hazards must be assumed to be additive in the absence of complete information. The hazards described in this document have been evaluated based on a threshold of 1.0% for all hazardous ingredients and 0.1% for all carcinogens.

For Components:

Tetrahydrofuran	LC50 (Inhalation)	Rat	21,000 ppm	3 hours
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Repeated Dose Toxicity: The National Toxicology program has reported that exposure of rats and mice to THF vapor levels up to 1800 ppm 6hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. Symptoms of respiratory tract irritation and damage to respiratory epithelium were reported in rats exposed to 5000 ppm of THF for 90 days. Elevation of SGPT suggests a disturbance of liver function. The No Observed Effect Level (NOEL) was reported to be 200 ppm (JPN.J Ind Health 24, 379, 1982). THF was not genotoxic in microorganisms (Cancer Research 39:682, 1979) drosophila (Env.Mut.7:325, 1985) or in the unscheduled DNA synthesis assays (Env.Mut. 5:482, 1983).

Butylated Hydroxy Toluene	LD50 (Oral)	Rat	890 mg/kg
		Mouse	650 mg/kg

Carcinogenicity: When administered to rats by stomach tube, butylated hydroxyl toluene (BHT) produced tumors of the forestomach. On the basis of this information an International Agency for Research on Cancer (IARC) working group concluded that there is 'limited evidence' for the carcinogenicity of BHT in laboratory animals. No case report or epidemiological study of carcinogenicity to humans was available to the working group; thus no evaluation could be made of the carcinogenicity of BHT to humans.

Section 12 - Ecological Information

Ecotoxicity: This material is expected to be non-hazardous to aquatic species.
(For component Tetrahydrofuran)

Toxicity to Fish/Amphibians:

LC50 / 96 hours	fathead minnow	2160 mg/l
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Toxicity to Aquatic Invertebrates:

LC50 / 24 hours	daphnia	5930 mg/l
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Toxicity to Aquatic Plants:

NOEC / 48 hours	algae	225 mg/l
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Environmental Fate: This material is volatile and water soluble. It may enter soil and may contaminate water. It is expected to be poorly adsorbed onto soils or sediments. This material is likely to evaporate from soil and water. Theo. BOD 100% (14 day).

Bioaccumulation: This material is not expected to bioaccumulate.

Biodegradation: This material is expected to be readily biodegradable.

Section 13 - Disposal Considerations

Summary: Contaminated product, soil or water may be hazardous waste due to low flash point. Assure effluent complies with applicable regulations. Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids in systems compatible with water soluble wastes. Avoid flame-outs. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Contaminated product/soil/water may be I.S. Resource Conservation and Recovery Act (RCRA)/U.S. Occupational Safety and Health Administration (OSHA) hazardous waste due to potentially low flash point. (See 40 U.S. Code of Federal Regulations (CFR) 261 and 29 CFR 1910).

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

For Inner Packages less than or equal to 0.3 gallons (1 liter) -- cartridges

Shipping Name: Adhesives
Shipping Symbols: Limited Quantity
Hazard Class: 3
ID No.: UN1133
Packing Group: II
Label: Limited Quantity label
Special Provisions (172.102):
 149,B52,IB2

Packaging Authorizations
a) Exceptions: 173.150
b) Non-bulk Packaging:
 173.173
c) Bulk Packaging: 173.242

Quantity Limitations
a) Passenger, Aircraft, or Railcar: 5 L
b) Cargo Aircraft Only: 60 L

Vessel Stowage Requirements
a) Vessel Stowage: B
b) Other: N/A

For Inner Packages greater than 0.3 gallons (1 liter) – cans, pails, & drums

Shipping Name: Adhesives
Shipping Symbols: Flammable
Hazard Class: 3
ID No.: UN1133
Packing Group: II
Label: Red Caution label required
Special Provisions (172.102):
 149,B52,IB2

Packaging Authorizations
a) Exceptions: 173.150
b) Non-bulk Packaging:
 173.173
c) Bulk Packaging: 173.242

Quantity Limitations
a) Passenger, Aircraft, or Railcar: 5 L
b) Cargo Aircraft Only: 60 L

Vessel Stowage Requirements
a) Vessel Stowage: B
b) Other: N/A

Section 15 - Regulatory Information

US Federal Regulations:

EPA Regulations:

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

TSCA (Toxic Substances Control Act) Status:

TSCA (United States) – The intentional ingredients of this product are listed.

CERCLA Hazardous Substance RQ – 40 CFR 302.4 (a)

Component	RQ (lbs)
Tetrahydrofuran	1000

CERCLA RQ – 40 CFR 302.4 (b)

Materials with a “listed” RQ may be reportable as an “unlisted hazardous substance”. See 40 CFR 302.5 (b).

SARA 311/312 Codes:

Immediate (X) Delayed (X) Fire (X) Reactive () Sudden Release of Pressure ()

SARA 313 Components (40 CFR 372.65):

Section 313 Component(s)	CAS Number	%
NONE		

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
 OSHA Specifically Regulated Substance (29 CFR 1910): None listed

EPA Accidental Release Prevention (40 CFR 68): None listed

State and Local Regulations:**California Proposition 65**

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substances known to the State of California to cause cancer: NONE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substances known to the State of California to cause reproductive harm: NONE

Delaware Air Quality Management List:

Chemical Name	DRQ:	State?
Tetrahydrofuran	1000	Must be reported to the DRQ

Massachusetts Hazardous Substances List:

Chemical Name	CAS #	Codes
Tetrahydrofuran	109-99-90	2, 4, 5, 6, F8

Michigan Critical Materials Registry:

Chemical Name	CAS #	Report	Class
NONE			

Minnesota Hazardous Substance:

Chemical Name	Codes	Hazards	Carcinogen?
Tetrahydrofuran	AO	--	No
2,6 Di-tert-butyl-p-cresol	A	--	No

New Jersey RTK Label Information:

Chemical Name	CAS #	TPQ	EHS
Tetrahydrofuran	109-99-9	--	--

New York List of Hazardous Substances:

Chemical Name	RQ – Air	RQ – Land	Note
Tetrahydrofuran	1000	100	none

Pennsylvania RTK Label Information

Chemical Name	CAS #	Code
Furan, tetrahydro	109-99-9	E
Phenol, 2,6-bis (1,1 dimethylethyl)-4-methyl-	128-37-0	--

Washington Air Contaminant:

TWA (ppm):	200 (Tetrahydrofuran)	
TWA (mg):	590 (Tetrahydrofuran)	10 (2-6-Di-tert-butyl-p-cresol)
STEL (ppm):	250 (Tetrahydrofuran)	
STEL (mg):	735 (Tetrahydrofuran)	
Ceiling (ppm):	None listed	
Ceiling (mg):	None listed	
Skin:	None listed	

Section 16 - Other Information

Prepared By: Research & Development

Revision Notes: Revised Section 14 Transportation Information.

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