



MATERIAL SAFETY DATA SHEET

Section 1: Product and Company Information

Product Name(s): TruGuard[®] Crack Sealant

Manufacturer: Owens-Corning, World Headquarters One Owens-Corning Parkway, Attn. Product Stewardship, Toledo, OH, 43659, Telephone: 1-419-248-8234 (8am-5pm ET weekdays).

Emergency Contacts:

Emergencies ONLY (after 5pm ET and weekends): 1-419-248-5330, CHEMTREC (24 hours everyday): 1-800-424-9300, CANUTEC (Canada - 24 hours everyday): 1-613-996-6666.

Health and Technical Contacts:

Health Issues Information (8am-5pm ET): 1-419-248-8234, Technical Product Information (8am-5pm ET): 1-800-GET-PINK.

Section 2: Composition and Ingredient Information

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt. %</u>
Polymeric Asphalt	Polymeric Asphalt	Trade Secret	50-70
Styrene	Vinyl Benzene	100-42-5	0.5-1.5
Water	Water	7732-18-5	30-50

Note: See Section 8 of MSDS for exposure limit data for these ingredients.

Section 3: Hazards Identification

Appearance and Odor: Brown to black liquid with faint petroleum odor.

Emergency Overview

No unusual emergency conditions are expected from this product.



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Primary Route(s) of Exposure: inhalation, skin, eye

Potential Health Effects:

ACUTE (short term): If inhaled, this product may cause nose, throat, and mucous membrane irritation, and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgment, and general weakness. Prolonged or repeated skin contact with product may result in dryness, cracking, tenderness, irritation of the skin, and dermatitis. Long term skin exposure can increase sensitivity to the sun and cause discoloration. Eye contact may cause irritation, redness, tearing and blurred vision. If ingested, this product may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. See Section 8 for exposure controls.

CHRONIC (long term): Studies of workers exposed to asphalt have not established an association between asphalt and cancer or other lung disease in man. However this petroleum based product contains a variable amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. Styrene is a possible cancer hazard (IARC Group 2B).

Prolonged exposure may result in nausea, loss of appetite, general weakness, changes in blood chemistry, and peripheral and central nervous system activity. Prolonged or repeated skin contact may result in irritation, and dermatitis marked by rough, dry cracking skin. Prolonged or repeated eye exposures to vapors may cause irritation to the lining of the eyelids. In laboratory animals, chronic exposure to styrene at high concentrations has been found to cause liver abnormalities, kidney damage and lung damage. In addition, preliminary results of inhalation studies indicate that laboratory rats exposed to 800 ppm styrene via inhalation showed evidence of hearing loss. Relevance to humans remains unclear. See Section 11 of MSDS for additional toxicological data.

Medical Conditions Aggravated by Exposure: Persons with a history of chronic respiratory disease, skin disease, or central or peripheral nervous system disorders may be at increased risk for worsening their conditions from exposure to this product.



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Section 4: First Aid Measures

Inhalation: Move person to fresh air. Administer cardiac or pulmonary resuscitation (CPR) if a pulse is not detectable or if unable to breathe. Provide oxygen if breathing is difficult. Obtain immediate medical assistance.

Eye Contact: Flush eyes with running water for at least 15 minutes. Seek medical attention immediately.

Skin Contact: Wash with running water for at least 15 minutes while removing contaminated clothing. If irritation occurs, seek medical attention.

Ingestion: DO NOT induce vomiting. In general, no treatment is necessary unless large quantities are ingested. Seek medical advice.

Section 5: Fire Fighting Measures

Flash Point and Method: over 400 °F (204 °C) Method - Cleveland Open Cup

Flammability Limits (%): Not Available

Auto Ignition Temperature: Not Available

Extinguishing Media: Water fog, foam, CO₂ or dry chemical.

Unusual Fire and Explosion Hazards: None known.

Fire Fighting Instructions: Treat as a fuel oil type fire. Water may be used to cool containers in fire exposed area. Use self contained breathing apparatus (SCBA) in a sustained fire. Full protective bunker turnout gear should be employed by fire fighting forces.

Hazardous Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide, sulfur oxides, and hydrogen sulfide. Other undetermined hydrocarbon fractions could be released in small quantities.



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Section 6: Accidental Release Information

Releases of this product to the land, water and air may require reporting to state, local and federal agencies.

Land Spill: Scoop up or vacuum material and put into suitable container for disposal as a non-hazardous waste.

Water Spill: Material is mostly insoluble. The material will sink to the bottom leaving a styrene monomer sheen. Styrene is harmful to aquatic life in very low concentrations. Notify local environmental, health and wildlife authorities, and water intake operators. Contain floating material with sorbents and vacuum or collect sunken solids. Disperse any remaining residue to reduce aquatic harm.

Air Release: This material will settle out of the air. It can then be scooped up or vacuumed for disposal as a non-hazardous waste.

Section 7: Storage and Handling

Storage Temperature: Store above 40 °F (4 °C) to avoid freezing.

Storage Pressure: Not applicable.

General: Use outdoors only. Product is designed to be applied cold. Do not heat.

Section 8: Exposure Controls and Personal Protection

<u>Ingredient</u>	<u>OSHA PEL</u> (8-hr TWA)	<u>ACGIH TLV</u> (8-hr TWA)
Polymeric Asphalt	5 mg/m ³ (respirable dust) 15 mg/m ³ (total dust)	5 mg/m ³
Styrene Monomer	100 ppm	50 ppm 100 ppm STEL (skin notation)



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Ventilation: Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs.

Personal Protection:

Respiratory Protection: If irritation occurs, or if the TLV or PEL is exceeded, use a NIOSH/MSHA approved air purifying respirator with organic vapor cartridges or canisters, or supplied air respirators. Use respiratory protection in accordance with your company's respiratory protection program, local regulations or OSHA regulations under 29 CFR 1910.134.

Skin Protection: Loose fitting, long sleeved shirt and long pants. Sunscreens may decrease the potential for skin discoloration with chronic exposure.

Eye Protection: Safety glasses or chemical goggles and face shield.

Work/Hygienic Practices: Handle with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, eyes and clothing. Wash hands and arms frequently. Shower after exposure. Wash work clothes when soiled. Safety showers and eye wash stations should be available.

Section 9: Physical and Chemical Properties

Vapor Pressure (mm Hg @ 20°C): Not Applicable **pH:** 4 - 7

Vapor Density (Air=1): Not Applicable

Specific Gravity (Water=1): 1.0 - 1.8

Boiling Point: 212 °F (100 °C)

Solubility in Water: Insoluble

Viscosity: Not Applicable

Appearance: Brown to black liquid

Physical State: liquid

Odor Type: Petroleum

Freezing Point: Not Applicable

Evaporation Rate (n-Butyl Acetate=1): Not Applicable



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Section 10: Stability and Reactivity

General: Stable

Incompatible Materials and Conditions to Avoid: None known.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and various hydrocarbon fractions may be released. See Section 5 of MSDS for combustion products statement.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

CARCINOGENICITY: The table below indicates whether or not each agency has listed each ingredient as a carcinogen:

<u>Ingredient</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Polymeric Asphalt	No	No	No	No
Styrene	No	Yes	No	No

	<u>LD₅₀ Oral</u> (g/kg)	<u>LD₅₀ Dermal</u> (g/kg)	<u>LC₅₀ Inhalation</u> (g/m ³ , 4 hrs.)
Polymeric Asphalt	Not Available	Not Available	Not Available
Styrene	5.0 (rat)	Not Available	24 (rat)

Petroleum Asphalt: In March, 1987, the International Agency for Research on Cancer (IARC) classified bitumens (such as polymeric asphalt in this product) as a Group 3 material, "not classifiable as to its carcinogenicity to humans." This classification was made based on inadequate evidence for the carcinogenicity of undiluted air-refined bitumens in experimental animals and inadequate evidence that bitumens alone are carcinogenic to humans. However, asphalt does contain a small amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in animals. NIOSH recently conducted mouse skin painting studies using selected fractions of asphalt fume condensate. Skin application of the condensate fractions resulted in skin tumors in laboratory mice.



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Styrene Monomer: In March, 1987, the International Agency for Research on Cancer (IARC) reclassified styrene as possibly carcinogenic to human (Group 2B) due to "inadequate evidence in humans", "limited evidence in animals" and "other relevant data". Previously, styrene was classified as a Group 3 compound (not classified as to carcinogenicity to humans). The IARC working group determined that the weight of data on genetic and related effects, together with the consideration that styrene metabolized in humans and animals to styrene oxide for which there is sufficient evidence of carcinogenicity in experimental animals and has been classified by IARC as probably carcinogenic to humans (Group 2A), was sufficient reason to recommend the change in classification.

Section 12: Ecological Information

This material is may cause harm to animals, plants or fish.

Section 13: Disposal Considerations

RCRA Hazard Class: Non-hazardous.



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Transportation of Dangerous Goods - Canada

Proper Shipping Name: Not Regulated

TDG Hazard Classification: (Primary): None (Secondary): None

IMO Classification: None

ICAO/IATA Classification: None

Product Identification Number: None

Packing Group: None

Control Temperature: None

Emergency Temperature: None

Schedule XII Quantity Restriction: None

Reportable Quantity for US Shipments: 100 lbs. of styrene

IATA Packing Instructions:

Passenger/Cargo: None

Cargo Only: None

Limited Quantity: None

Maximum Net Quantity per Package:

Passenger/Cargo: None

Cargo Only: None

Limited Quantity: None

Special Provisions: None



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Section 15: Regulatory Information

TSCA Status: Each ingredient is on the Inventory.

NSR Status (Canada): Each ingredient is on the DSL.

SARA Title III:

Hazard Categories:

Acute Health: Yes
Chronic Health: Yes
Fire Hazard: No
Pressure Hazard: No
Reactivity Hazard: No

Reportable Ingredients:

Sec. 302/304: Styrene
Sec. 313: Styrene

California Proposition 65: This material contains detectable amounts of some chemicals known to the State of California to cause cancer. Styrene oxide is listed as known to the State of California to cause cancer. Styrene oxide is a metabolite of styrene monomer.

Clean Air Act: Styrene is listed as a hazardous air pollutant.

WHMIS (Canada) Status: Controlled

WHMIS Classifications: D2A - possible carcinogen

Section 16: Other Information

HMIS and NFPA Hazard Rating:	Category	HMIS	NFPA
	Acute Health	1	0
	Flammability	1	1
	Reactivity	0	0

NFPA Unusual Hazards: None

HMIS Personal Protection: To be supplied by user depending upon use.

Revision Summary: This MSDS replaces the February 20, 1989 MSDS. This MSDS is in the new ANSI format with new information in many sections. Read this information carefully. (Reformatted 10/22/98)