



# MATERIAL SAFETY DATA

**Chemtrec 24-Hour Emergency Telephone**

Domestic North America (800) 424-9300

International (800) 527-3887

*This MSDS complies with 29 CFR 1910.1200 (Hazard Communications)*

## 1. Product and Supplier Identification

**Product Name:** Orca Core Bonding Putty 4001

**Product Number:** 0614001F

**Date of Prep:** 08/18/2010

**Product Type:** Unsaturated Polyester Resin

**Supplier:** Fiberlay Inc.  
24 S. Idaho S.  
Seattle, Wa 98134  
(206)782-0660

## 2. Composition/Information On Ingredients

CAS No.	Chemical Name	% WT	SARA 313	PEL	TWA	STEL
100-42-5	STYRENE	24-30	x	425mg/m <sup>3</sup> PPM 100	PPM 550 215mg/m <sup>3</sup> PPM 5000	PPM 100 425mg/m <sup>3</sup>

## 3. Hazards Identification

**Hazardous Identification Information:** HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 2

**Chronic exposure** may cause damage to the central nervous system, respiratory system, lungs, eyes, skin, gastrointestinal tract, liver, spleen, and kidneys.

**High temperature exposure** for extended periods of time will result in spontaneous uncontrolled exothermic polymerization.

## 4. First Aid Measures

**Route(s) of Entry:** Inhalation, Ingestion, Skin and Eye contact.

**Major Exposure Hazard:**

**Eye Contact:** Severe irritation, redness, tearing, blurred vision

**Skin Contact:** Prolonged or repeated exposure can cause moderate irritation, de-fatting, dermatitis, and sensitization.

**Inhalation:** Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, and headache. High concentrations may result in narcosis (central nervous system depression).

**Ingestion:** Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis, which can be fatal.

**Chronic exposure** may cause damage to the central nervous system, respiratory system, lungs, eyes, skin, gastrointestinal tract, liver, spleen, and kidneys.

**Signs and Symptoms:** Skin, eye and respiratory tract irritation.

**Emergency and First Aid Procedures:**

**Skin Contact:** Remove contaminated clothing and wash affected area with soap and water. If irritation continues, seek medical attention.

**Eye Contact:** Flush eyes with water for at least 15 minutes and contact a physician.

**Ingestion:** Do not induce vomiting. Call a physician.

**Inhalation:** Remove person to fresh air. If person is not breathing give mouth-to-mouth resuscitation and contact a physician.

## 5. Fire Fighting Measures

**Flash point: (Styrene)** 90°F PENSKEY-MARTEN CLOSED CUP

**Lower Explosive Limit:** 1.10%

**Upper Explosion Limit:** 6.10%

**Fire Extinguishing Media:**

Foam, carbon dioxide or chemical fire fighting apparatus.

**Special Fire Fighting Procedures:**

Cool tanks and drums with water. Firefighters should wear self contained breathing apparatus and protective clothing.

**Unusual Fire and Explosion:**

High temperature exposure for extended periods of time will result in spontaneous uncontrolled exothermic polymerization

## 6. Handling and Storage

**Precautions to be Taken:**

Store in a cool, dry place away from oxidizers. Do not store in direct sunlight. Work with adequate general and local exhaust ventilation to minimize exposure to vapors.

**Other Precautions:**

Avoid skin and eye contact.

## 7. Exposure Controls, Personal Protection

**Ventilation Requirements:**

Local exhaust ventilation should be used to control the emission of air contaminants. General dilution may assist with the reduction of contaminate concentrations. ventilation

**Personal Protective Equipment:**

**Protective Gloves:** Polyvinyl alcohol gloves and polyethylene garments are recommended

**Eye Protection:** OSHA compliant goggles or face shields recommended.

**Other Equipment:** Emergency eye wash stations should be located in the work areas.

## 8. Physical and Chemical Properties

<b>Boiling Point:</b>	293°F	<b>Melting Point:</b>	NA
<b>Vapor Pressure (mm Hg.):</b>	3.56 MM Hg	<b>Solubility In Water:</b>	N/A
<b>Vapor Density (AIR = 1):</b>	2.98		

**Other Information:**

Percent Volatile by Volume (%): 21-27

Specific Gravity: 0.78

## 9. Stability and Reactivity

**Stability:** Stable under normal conditions. Avoid exposure to temperatures above 100°F or 38°C.

**Incompatibility (Materials to Avoid):** Avoid contact with strong mineral acids, peroxides, oxidizing agents, and polymerization catalysts.

**Decomposition/By Products:** Thermal decomposition may yield carbon monoxide / dioxide, low molecular weight hydrocarbons, and organic acids.

**Hazardous Polymerization:** Can occur

## 10. Toxicological Information

IARC (International Agency for Research on Cancer) has re-classified styrene from a Group 3 substance to a Group 2B substance. This is not based on any significant new evidence that styrene might be carcinogenic, but rather on a broadening of the definition for Group 2B classification.

## 11. Disposal Considerations

Waste must be disposed of in accordance with federal, state and local environmental regulations.

## 12. Regulatory Information

TSCA Inventory Status: This substance or mixture appears on the Toxic Substance Control Act (TSCA) Inventory.  
SARA Hazard categories (section 311 and section 312): Reactivity, Immediate Health, Delayed Health, Fire.

### Hazardous Material Identification System:

Health: 2  
Flammability: 3  
Reactivity: 2

### NFPA Rating (Nat'l Fire Protection Association)

Health: 2  
Flammability: 3  
Reactivity: 2

## 13. Other Information

**Preparation Date:** 8-18-10

**Prepared by:** Fiberlay Inc

**Comments:** This Material Safety Data Sheet was prepared using information provided by Sewon Chemical Co. Ltd., Fiberlay Inc. and CCINFO.

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**Revisions:** None