

MSDS: 106 REVISION: 007  
REVISION DATE: 03/04/92

HILTI, INC.  
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**MATERIAL SAFETY DATA SHEET**

**PRODUCT NAME:** HIT-C100 Dowelling

**DESCRIPTION:** Material is packed in two tubes joined together. Part A is located in the large tube, Part B is located in the small tube.

**INGREDIENTS AND EXPOSURE LIMITS**

INGREDIENTS:	%	CAS NUMBER:	EXPOSURE LIMITS:
Part A:			
Vinylester Resin	-	62395-84-2	None Established
Unsaturated Polyester Resin	-	25037-66-5	None Established
Styrene	-	00100-42-5	TLV: 50 ppm (Skin) PEL: 50 ppm STEL: 100 ppm (Skin)
Fumed Silica	-	67762-90-7	Not Applicable
Silica	-	14808-60-7	Not Applicable
Part B:			
Dibenzoyl Peroxide	-	00094-36-0	TLV: 5 mg/m <sup>3</sup> PEL: 5 mg/m <sup>3</sup>
Fumed Silica	-	67762-90-7	Not Applicable
Paraffin Wax	-	69449-39-8	None Established
Micro Hollow Balls	-	68131-74-8	None Established

PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. These are 8 hour time-weighted averages unless otherwise indicated by "C" (Ceiling) or "STEL" (Short Term Exposure Limit). A "SKIN" notation indicates exposures should be controlled for the cutaneous routes including the mucous membranes, eyes and skin. Airborne exposures as well as direct contact must be considered.

**PHYSICAL DATA**

**APPEARANCE AND ODOR:** Gray paste with aromatic odor.

**BOILING POINT:** Part A: 248-282° F  
Part B: Decomposes @ 150° F

**VOC CONTENT:** 170 g/l

**VAPOR DENSITY:** 3.8 (Styrene)

**SOLUBILITY IN WATER:** Nil

**pH:** Not Determined

**MELTING POINT:** Not Determined

**VAPOR PRESSURE:** 6 mm Hg @ 68° F (Styrene)

**EVAPORATION RATE:** Not Determined

**SPECIFIC GRAVITY:** Part A: 1.65, Part B: 0.98

**FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** 93° F

**FLAMMABLE LIMITS:** Lower 1.1% Upper 6.1%

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry Chemical, Foam, Water

**SPECIAL FIRE FIGHTING PROCEDURES:** Use self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Thermal decomposition can yield CO and CO<sub>2</sub>. Flammable. Isolate from heat, electrical equipment, sparks, and open flames.

**REACTIVITY DATA**

**STABILITY:** Stable at temperatures below 122° F.

**INCOMPATIBILITY:** Strong acids, peroxides, and other oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Open flames or sparks. Storage above 84°F/below 32°F. Moisture. Styrene will polymerize at elevated temperatures. Dibenzoyl peroxide will decompose at temperatures > 150° F

### HEALTH HAZARD DATA

**KNOWN HAZARDS:** Causes eye burns. Skin irritant. Can have an anesthetic effect if inhaled. Can cause allergic skin and respiratory reactions.

**CARCINOGENICITY:** The IARC classifies styrene as a Group-2B animal carcinogen. This classification is based upon limited evidence associated with animal studies and inadequate evidence associated with studies of styrene workers. Crystalline silica (sand) is considered by IARC to be a Group 2-A animal carcinogen. NTP has proposed to add paraffin waxes to the Fifth Annual Report on Carcinogens. The nature and intended use of this product, however, does not pose a cancer risk to humans.

**PRIMARY ROUTES OF EXPOSURE:** Dermal. Inhalation.

**SIGNS AND SYMPTOMS OF EXPOSURE:** Contact causes eye burns. Prolonged and repeated contact can cause skin irritation. "Styrene sickness" (drowsiness, nausea, headache, fatigue, and dizziness) has been mentioned in workers exposed at 200-700 ppm. Styrene exposure levels anticipated from routine use are less than 5 ppm.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Eye, skin, and respiratory conditions.

### EMERGENCY AND FIRST AID PROCEDURES

**EYES:** Immediately flush with plenty of water for at least 15 minutes. Call a physician.

**SKIN:** Wash with soap and water. Contaminated clothing should be laundered before reuse.

**INHALATION:** Move victim to fresh air. Give oxygen and/or artificial respiration, if needed. Call a physician.

**INGESTION:** If conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to by a physician. Call a physician immediately.

**OTHER:** Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

### CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

**VENTILATION:** General (natural or mechanically induced fresh air movements that maintain vapor concentrations below recommended exposure limits).

**EYE PROTECTION:** Wear safety glasses (side shields recommended). If eye discomfort occurs due to exposure to vapors, wear chemical goggles.

**PROTECTIVE GLOVES:** Cotton or impermeable gloves.

**RESPIRATORY PROTECTION:** None normally required. Use a NIOSH-approved organic vapor cartridge respirator when vapor concentrations exceed recommended exposure limits.

### PRECAUTIONS FOR SAFE HANDLING AND USE

**KNOWN HAZARDS:** Contact causes eye burns and skin irritation. Can cause allergic skin and respiratory reactions. Can have an anesthetic effect if inhaled. Flammable.

**HANDLING AND STORING PRECAUTIONS:** Keep in a cool dry place out of direct rays of the sun. Store below 84°F. Keep from freezing. Flammable. Keep away from ignition sources such as excessive heat, sparks, and open flames. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Wash thoroughly after handling.

**SPILL PROCEDURES:** Remove ignition sources, absorb spilled material and place in a closed container for disposal. Avoid direct contact.

### REGULATORY INFORMATION

**OSHA HAZARD COMMUNICATION:** This MSDS has been prepared in compliance with the federal OSHA Hazard Communication Standard. This product is considered to be a hazardous chemical under that standard.

**HMIS CODES:** Health 2, Flammability 3, Reactivity 1, PPE B

**DOT PROPER SHIPPING NAME:** Resin solution, Flammable liquid, UN1866 (or Consumer Commodity, ORM-D)

**TSCA INVENTORY STATUS:** Chemical components listed on TSCA Inventory.

**SARA TITLE III, SECTION 313:** This product contains 10-20% Styrene (CAS # 100-42-5) and 25-35% Benzoyl Peroxide (CAS # 94-36-0), which are subject to the reporting requirements under Section 313 of the Superfund Amendments and Reauthorization Act of 1980 and 40 CFR Part 372.

**WASTE DISPOSAL METHODS:** Consult with regulatory agencies or corporate personnel for disposal methods that comply with local, state, and federal health and environmental regulations.

**CONTACTS:** TECHNICAL: Chris Gill  
HEALTH/SAFETY: Jim Dixon

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.

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