



MSDS No.: 106  
Revision No.: 013  
Revision Date: 03/10/00  
Page: 1 of 2

## MATERIAL SAFETY DATA SHEET

**Product name:** HIT C-100 Dowelling  
**Description:** 2-part adhesive; resin (Pt. A; large tube) and hardener (Pt. B, small tube)  
**Supplier:** Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121  
**Emergency # (Chem-Trec.):** 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)

### INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	TLV:	PEL:	STEL:
<b>Part A:</b>	Quartz sand	NA	NA	NA
	Styrene	00100-42-5	50 ppm	50 ppm
	Unsaturated polyester resin	25037-66-5	NE	NE
	Vinyl ester resin	62395-94-2	NE	NE
	Synthetic amorphous silica	67762-90-7	NA	NA
<b>Part B:</b>	Polyadipic acid ester	25101-03-5	NE	NE
	Dibenzoyl peroxide	00094-36-0	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
	Ash	68131-74-8	NE	NE
	Amorphous silica	07631-86-9	NA	NA

**Abbreviations:** **PEL** = OSHA Permissible Exposure Limit. **TLV** = ACGIH Threshold Limit Value. **STEL** = Short Term Exposure Limit. **NE** = None Established. **NA** = Not Applicable. **(S)** indicates exposure should be controlled for the cutaneous routes including the mucous membranes, eyes, and skin.

### PHYSICAL DATA

<b>Appearance:</b>	Gray paste.	<b>Odor:</b>	Aromatic odor.
<b>Boiling Point:</b>	248 - 282° F (Part A)	<b>Vapor Pressure:</b> @ 68° F	6 mm Hg (for styrene)
<b>Vapor Density:</b> (air = 1)	3.6 (for styrene)	<b>VOC Content:</b>	170 g/l
<b>Evaporation Rate:</b>	Not determined.	<b>Solubility in Water:</b>	Negligible.
<b>Specific Gravity:</b>	Pt. A = 1.65; Pt. B = 0.98	<b>pH:</b>	Not determined.

### FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point / Method:</b>	Part A: 93° F / Tag CC	<b>Flammable Limits:</b>	Not determined.
<b>Extinguishing Media:</b>	Water, CO <sub>2</sub> , Dry Chemical, Foam.		
<b>Special Fire Fighting Procedures:</b>	Wear full protective clothing. A NIOSH-approved self-contained breathing apparatus (SCBA) should be worn when fighting fires involving chemicals.		
<b>Unusual Fire and Explosion Hazards:</b>	Flammable. Keep away from ignition sources.		

### REACTIVITY DATA

<b>Stability:</b>	Stable below 122° F	<b>Hazardous Polymerization:</b>	Will not occur.
<b>Incompatibility:</b>	Strong acids, peroxides and other oxidizing agents.		
<b>Decomposition Products:</b>	Thermal decomposition can yield CO and CO <sub>2</sub> .		
<b>Conditions to Avoid:</b>	Moisture and temperature extremes. Storage below 41° F and/or above 77° F could shorten the shelf-life of this product. Styrene will polymerize (non-violently) at elevated temperatures. Dibenzoyl peroxide will decompose at temperatures exceeding 150° F.		

### HEALTH HAZARD DATA

<b>Known Hazards:</b>	Acute: Eye burns; skin and respiratory irritation. Chronic: Sensitization is possible.
<b>Signs and Symptoms of Exposure:</b>	Eyes: Can cause burns. Skin: Can cause irritation. An allergic skin reaction (e.g. rash, itching, reddening) can occur with some individuals. Inhalation: Drowsiness, nausea, headaches, etc. can occur from exposure to styrene at 200 - 700 ppm. The styrene exposure level anticipated during routine use is less than 5 ppm. Ingestion: Effects have not been determined. Not a likely route of exposure.
<b>Medical Conditions Aggravated by Exposure:</b>	Eye, skin, and respiratory conditions.

<b>Carcinogenicity:</b>	IARC classifies styrene as a Group-2B (possible) carcinogen based upon limited evidence associated with animal studies and inadequate evidence associated with studies of styrene workers. IARC classifies crystalline silica (quartz sand) as a Gp I carcinogen based upon evidence among workers in industries where there has been long-term and chronic exposure (via inhalation) to silica dust; e.g. mining, quarry, stone crushing, refractory brick and pottery workers. This product does not pose a dust hazard; therefore, this classification is not relevant. The characteristics and intended use of this product do not pose a cancer risk to humans.
<b>Routes of Exposure:</b>	Dermal. Inhalation.

#### EMERGENCY AND FIRST AID PROCEDURES

<b>Eyes:</b>	Wash <b>immediately</b> with large amounts of clean water. Seek medical attention if any effects occur.
<b>Skin:</b>	Wash with soap and water. Launder contaminated clothing before reuse.
<b>Inhalation:</b>	Move to fresh air. Give oxygen or artificial respiration if needed. Call a physician.
<b>Ingestion:</b>	Do not induce vomiting unless large amounts are ingested. If conscious, give plenty of water to drink. <u>Never</u> give anything by mouth to an unconscious person. Contact a physician immediately.
<b>Other:</b>	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

#### CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

<b>Ventilation:</b>	General (natural or mechanically induced fresh air movements).
<b>Eye Protection:</b>	Safety glasses with side shields.
<b>Skin Protection:</b>	Cotton gloves are recommended.
<b>Respiratory Protection:</b>	None normally required. Where ventilation is inadequate to control vapors, use a NIOSH-approved respirator with organic vapor cartridges. Never enter a confined space without an appropriate air-supplied respirator.

#### PRECAUTIONS FOR SAFE HANDLING AND USE

<b>Handling and Storing Precautions:</b>	Product has limited shelf life (refer to package date code). Keep in a cool dry place out of direct rays of the sun. Recommended storage temperature range is 41°F to 77°F. Keep from freezing. Flammable. Keep away from ignition sources such as extremely hot surfaces, sparks, flames and lit cigarettes. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Practice good hygiene; i.e. wash after using and before eating or smoking. For industrial use only. Keep out of reach of children.
<b>Spill Procedures:</b>	Remove ignition sources. Take up with an absorbent material and place in a container for proper disposal.

#### REGULATORY INFORMATION

<b>Hazard Communication:</b>	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
<b>HMIS Codes:</b>	Health 2, Flammability 3, Reactivity 1, PPE B
<b>DOT Shipping Name:</b>	Consumer commodity, ORM-D
<b>ICAO / IATA Shipping Name:</b>	Resin solution, Class 3, UN 1866, PG III
<b>TSCA Inventory Status:</b>	Chemical components listed on TSCA inventory.
<b>SARA Title III, Section 313:</b>	This product contains 10 - 20% styrene (CAS # 100-42-5) and 25 - 35% dibenzoyl peroxide (CAS # 94-36-0), which are subject to the reporting requirements under Section 313 of SARA Title III (40 CFR Part 372).
<b>EPA Waste Code(s):</b>	D001
<b>Waste Disposal Methods:</b>	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety / health / environmental regulations.

#### CONTACTS

<b>Customer Service:</b>	1 800 879 8000	<b>Technical Service:</b>	1 800 879 8000
<b>Health / Safety:</b>	1 800 879 6000	Jerry Metcalf	(x6704)
<b>Emergency # (Chem-Trec):</b>	<b>1 800 424 9300</b> (USA, PR, Virgin Islands, Canada); <b>001 703 527 3887</b> (other countries)		

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.