



HiTHERM®

HOT OR COLD WE GOT YOU COVERED

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

PRODUCT: HT-450 Rigid Foam System Component C

MANUFACTURER: HiTherm, LLC

14056 Artesia Blvd.

Cerritos, CA 90703

TEL./FAX: (562) 483-1555/(562) 483-1554

TRADE NAME: HT-450 Component C

MOL. WEIGHT: Trade Secret

CHEMICAL NAME: Mixture

FORMULA: Trade Secret

CHEMICAL FAMILY: Urethane system resin
Component

DATE REVISED: January 2004

II. HAZARDOUS INGREDIENTS

COMPONENT	CAS No.	%	PEL/TLV-SOURCE
Dimethyl Ester Containing Benzenedicarboxylic Acid	70749-97-2	10-20	Not Established
Diethylene Glycol	111-46-6	1-3	10mg/m ³ (8 hr TWA, aerosol only) AIWA WEEL 50 ppm total (8 hr. TWA)
Modified Melamine Formaldehyde resin	68002-20-0	35-50	OSHA—N.E. ACGIH—N.E
Formaldehyde	000050-00-0	0.03-0.25	

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III. PHYSICAL DATA

Boiling Point: N.E.

Specific Gravity/Bulk Density (H₂O=1): 1.22-1.24

Vapor Pressure, mm Hg @ 20⁰ C: Not Applicable

Solubility in Water: Slight

Appearance: Light Amber to Dark brown Liquid...Intensity: Slight

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): 300⁰ F Pinsky-Martens Closed Cup

Flammability Limits in Air (% by Volume), Upper/Lower: Not Applicable

Special Fire Fighting Procedures: Fire Fighters must be equipped with self-contained Breathing apparatus and turnout gear.

NO UNUSUAL FIRE AND EXPLOSION HAZARDS ARE KNOWN

EMERGENCY NUMBERS: INFOTRAC (800) 535-5053; 24 hrs. per day, 7 days per week. Hitherm: (562) 483-1555

V. HEALTH HAZARD DATA

Primary Routes of Exposure: Contact with skin or eyes. Product ingestion is unlikely but may occur if proper safety/hygiene procedures are not followed. Exposure may also occur via inhalation if the product is heated misted or sprayed during handling or processing.

Effects of Overexposure:

Eye Contact: May cause moderate irritation and possible corneal injury. Vapors may irritate eyes and may cause swelling of the cornea, resulting in visual disturbance such as blurred, smoky or halo vision.

Skin: Prolonged or repeated exposure may cause moderate irritation. The LD50 for skin absorption in rabbits is >2000 mg/kg for similar mixtures. May cause allergic skin reaction in susceptible individuals.

Ingestion: A single dose PEL oral toxicity is believed to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing large amounts may cause injury.

Inhalation: In a confined or poorly ventilated area vapors can readily accumulate and can cause unconsciousness or death due to oxygen displacement. Signs of overexposure may be anaesthetic or narcotic and may increase sensitivity to

epinephrine and increased myocardial irritability. Vapors or mist may cause irritation of the upper respiratory tract. See Toxicological Information below for OSHA regulated components.

Emergency And First Aid Procedures:

Eyes (Splash): Flush immediately with copious amounts of running water for at least 15 minutes holding eyelids open. Consult physician.

Skin: Wash affected area with soap and water. For severe exposures, get under safety shower after removing clothing. For lesser exposures, if irritation develops, consult physician. Wash clothing before re-use.

Ingestion: If swallowed, induce vomiting. **NEVER GIVE FLUIDS TO OR INDUCE VOMITING IF THE VICTIM IS UNCONSCIOUS OR HAVING CONVULSIONS.**

Inhalation: Remove to fresh air; aid in breathing, administer oxygen or artificial respirator if necessary. If necessary, consult physician.

Note To Physician: Exposure may increase “myocardial irritability”. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote. Treatment should be based on physician’s judgment in response to reaction of patient.

Toxicological Information:

For Formaldehyde vapor:

Oral LD50...: (Rats) 500-800mg/kg

Dermal LD50.: (Rabbits) 270 mg/kg

LC50 (4hr inhalation exposure to rats): 240-478 ppm

Teratogenicity: (rats, Rabbits) Exposure to formaldehyde vapor at concentrations

In excess of 1 ppm may cause irritation of the eyes and respiratory tract.

2% solutions of formaldehyde can cause allergic skin reactions. Formaldehyde was found to be weakly active in a number of in vitro genotoxicity tests, but inactive in vivo. Formaldehyde did not cause birth defects in rats inhaling concentrations up to 10 ppm. Lifetime inhalation of formaldehyde vapor at concentrations above 5 ppm for 6 hours per day, caused nasal tumors in laboratory animals.

Carcinogenicity: Many epidemiology studies have failed to link cancer in Humans with occupational exposure to formaldehyde.

For Diethylene Glycol:

Diethylene glycol is moderately toxic (estimated LD50 of 1-2 gm/kg body weight), is not irritating to eyes, causes mild skin irritation and is not readily absorbed through the skin. Oral ingestion of large amounts is reported to cause nausea, vomiting, diarrhea and central nervous system depression, anuria and kidney and liver pathology.

Diethylene Glycol is reported to have caused mild to moderate eye irritation, slight skin irritation and found to be of low oral toxicity in animals. Formation of urinary bladder stones has been reported for rodent species.

VI. REACTIVITY DATA

Stability.....: Stable
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, HCl, HF, oxides of nitrogen, aldehydes.
Incompatibility (chemicals to avoid): Strong oxidizing agents. Avoid moisture to protect product quality.
Condition To Avoid.....: Exposure to moisture and temperatures >85⁰ F.
Hazardous Polymerization.....: Does not occur.

VII. SAFE HANDLING AND USE INFORMATION

Respiratory Protection.....: None needed at normal temperatures. If vapors are generated wear an organic vapor respirator as necessary.
Ventilation.....: Use local exhaust to maintain work area below PEL and TLV.
Protective Clothing.....: Rubber gloves recommended for direct contact.
Eye Protection.....: Safety goggles recommended.
Other Protective Equipment...: No special requirements. Avoid contact with skin as required by good hygiene practice. Remove and wash contaminated clothing before re-use.

VIII. REGULATORY INFORMATION AND ENVIRONMENTAL DATA

Environmental Toxicity Data.....: None available
Spill And Leak Procedures.....: Resin component is not regulated under RCRA or CERCLA (Superfund). Spills should be contained, solidified and placed in Suitable containers for disposal.

The following components are defined as toxic chemicals subject to reporting requirements of Section 313 of Title III and of 40 CFR 372 or subject to other EPA Regulations.

COMPONENT	%	CAS No.	TPQ(lbs)	RQ(lbs)	S313	RCRA	TSCA 12B
Formaldehyde	0.03-0.25	50-00-0	500	100	YES	U122	NO

Hazardous Waste 40 CFR 261.....: No
Hazardous Waste Number.....: None
Container Disposal.....: Dispose of in licensed facility. Crushing or other means to prevent unauthorized re-use recommended.

