



### MATERIAL SAFETY DATA SHEET

**HILTI, INC.:** P.O. Box 21148, Tulsa, OK 74121; Ph: 1 800 879 6000; Emergency No.: 1 800 879 4444  
**PRODUCT NAME:** CF 128 Filler Foam  
**DESCRIPTION:** Urethane resin system

#### INGREDIENTS AND EXPOSURE LIMITS

INGREDIENTS:	CAS NUMBER:	PEL:	TLV:	STEL:
Urethane prepolymer containing 4,4' diphenylmethane diisocyanate (MDI)	00101-68-8	C: 20 ppb	5 ppb	NE
Dimethyl ether	00115-10-6	NE	NE	NE
1,1,1,2 tetrafluoroethane	00811-97-2	NE	NE	NE
Propane	00074-98-6	1000 ppm	NE	NE
Butane	00106-97-8	800 ppm	800 ppm	NE

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). NE = None Established

#### PHYSICAL DATA

**APPEARANCE AND ODOR:** Brown liquid expanding to foam on contact with air. Sweet ethereal odor.  
**BOILING POINT:** Not Determined  
**VAPOR PRESSURE:** 44 psi @ 68° F  
**EVAPORATION RATE:** < .1 (ether = 1)  
**SPECIFIC GRAVITY:** 1.15  
**VOC CONTENT:** 228 grams/liter  
**VAPOR DENSITY:** > 1 (Polymer)  
**SOLUBILITY IN WATER:** Not Soluble  
**pH:** Not Determined

#### FIRE AND EXPLOSION HAZARD DATA

**FLAMMABLE LIMITS:** Lower = 4%; Upper = 18%  
**FLASH POINT:** < 0° F (propellants)  
**EXTINGUISHING MEDIA:** CO<sub>2</sub>, Dry Chemical, Foam  
**SPECIAL FIRE FIGHTING PROCEDURES:** Wear full protective clothing. A self-contained breathing apparatus should be worn when fighting fires involving chemicals.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Extremely flammable. Contains flammable propellants. Cans exposed to fire can or direct heat can rupture from pressure build-up and be propelled through the air. See below for hazardous decomposition products.

#### REACTIVITY DATA

**STABILITY:** Reacts (i.e. expands at a ratio of > 40:1 to form a polyurethane foam) upon contact with air. Contact with moisture or water will also cause material to polymerize (non-violently).  
**INCOMPATIBILITY:** Alcohols, strong bases, alkali metal compounds. Reacts with water (nonviolently).  
**HAZARDOUS DECOMPOSITION PRODUCTS:** CO, CO<sub>2</sub>, CN, isocyanates, NO<sub>x</sub>, Cl, PO<sub>x</sub>.  
**HAZARDOUS POLYMERIZATION:** Will not occur.  
**CONDITIONS TO AVOID:** Excess heat. Contact with air or moisture will cause foam to polymerize (cure).

#### HEALTH HAZARD DATA

**KNOWN HAZARDS:** **Acute:** Eye, skin, and respiratory irritation. **Chronic:** Sensitization.  
**CARCINOGENICITY:** No ingredients are listed by IARC, NTP, or OSHA as carcinogens.  
**PRIMARY ROUTES OF EXPOSURE:** Dermal. Inhalation.  
**SIGNS AND SYMPTOMS OF EXPOSURE:** Eye and skin contact can cause irritation. Vapor generated when heated to temperatures > 100° F can cause irritation of the breathing tract. Some individuals can develop an allergic (asthmatic-like) response. Should this occur, immediately move to fresh air. Future use of this product should be avoided by those individuals who develop an allergic reaction.  
**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Eye, skin, and respiratory conditions.

## EMERGENCY AND FIRST AID PROCEDURES

**EYES:** Wash **immediately** with large amounts of clean water. Seek immediate medical attention.

**SKIN:** Remove from skin immediately with soap and warm water. If material has hardened, use MC 400 Hand Cleaner or a light mineral oil. If unable to remove, buff off with a pumice stone.

**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. Do not induce vomiting unless directed to by a physician. Contact a physician immediately. Never give anything by mouth to an unconscious person.

**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 (i.e., natural or mechanically induced fresh air movements that maintain vapor concentrations below recommended exposure limits).

**EYE PROTECTION:** Goggles recommended. Safety glasses with side shields as a minimum.

**SKIN PROTECTION:** Cotton gloves recommended.

**RESPIRATORY PROTECTION:** Not normally required. If MDI concentrations exceed recommended levels, a supplied air respirator is required.

## PRECAUTIONS FOR SAFE HANDLING AND USE

**HANDLING AND STORING PRECAUTIONS:** Avoid contact with eyes and skin. Material will adhere to skin. Keep away from children. Contents under pressure. Extremely flammable. Do not apply direct heat to the cans. Before using, remove ignition sources such as flames or equipment/tools that generate sparks. Store in a cool, dry place. Do not store in direct sunlight. Keep from freezing. Store between 40° and 100° F.

**SPILL PROCEDURES:** CF 128 Filler Foam will polymerize (cure) upon contact with air/moisture. Allow product to cure, then remove for disposal.

## REGULATORY INFORMATION

**HAZARD COMMUNICATION:** This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard.

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

**DOT SHIPPING NAME:** Consumer Commodity, ORM-D.

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

**SARA TITLE III, SECTION 313:** This product contains 4-7% 4, 4' diphenylmethane diisocyanate (101-68-8) which is subject to reporting under Section 313 of SARA Title III (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.

**HEALTH / SAFETY CONTACTS:** Steve Gerrard (x6309)  
Jerry Metcalf (x6704)

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.