



MATERIAL SAFETY DATA SHEET

Product identifier: CF 116-14 Grip Filler Foam
Product description / use: Polyurethane foam
Supplier: Hilti (Canada) Corporation, 2360 Meadowpine Blvd., Mississauga, Ontario L5N 6S2
Originator: Hilti, Inc., P. O. Box 21148, Tulsa, Oklahoma, USA 74121
Emergency phone number: Chem-Trec: 1 800 424 9300

INGREDIENTS INFORMATION

Ingredient	CAS Number	% (wt.)	LC ₅₀ , (rat)	LD ₅₀ (rat)	TLV	STEL
Tris(1-chloro-2-propyl) phosphate	13674-84-5	10 – 30	N/Av	1500 mg/kg	N/E	N/E
4,4'-Diphenylmethane diisocyanate (MDI)	101-68-8	10 – 30	178 mg/ m ³	9200 gm/kg	0.051 mg/ m ³	N/E
Propane	74-98-6	01 – 05	N/Av	N/Av	1000 ppm	N/E
Butane	106-97-8	01 – 05	658 gm/m ³ /4H	N/Av	1000 ppm	N/E
Dimethyl ether	115-10-6	03 – 07	30,800 mg/m ³	N/Av	N/E	N/E
1,1-Difluoroethane	75-37-6	05 – 10	977 gm/m ³ /2H (mouse)	N/Av	N/E	N/E

PHYSICAL PROPERTIES

Appearance / Physical state:	Yellowish liquid/foam	Odour:	Sweet odor.
Specific gravity (at 20°C):	0.9-6.0	VOC Content:	115 g/l
Vapour pressure (at 20°C):	5.5-6 bar	Vapour density:	Not determined.
Evaporation rate:	Not determined.	Boiling point:	Not determined.
Freezing point:	Not determined.	pH:	Not determined.
Coefficient of H2O / oil distrib:	Not determined.	Solubility in water:	Not soluble.

FIRE AND EXPLOSION DATA

Flash point / Method:	Flammable gas	Flammable limits:	0.4 – 32%
Conditions of flammability:	Extremely flammable aerosol. Contents under pressure. Cans exposed to fire or direct heat can rupture from pressure build-up and be propelled through the air.		
Auto-ignition temperature:	Not determined.		
Means of extinction:	CO ₂ , Dry Chemical, Foam, Water.		
Special fire fighting procedures:	None known for cured foam. Uncured isocyanates react with water to release CO ₂ .		
Hazardous combustion products:	Thermal decomposition products such as CO, HCN, HCL, and HF can be produced under fire conditions.		
Sensitivity to mechanical impact / static discharge:	Not susceptible to mechanical impact or to a static discharge.		

REACTIVITY DATA

Stability:	Reacts (i.e. expands to form a polyurethane foam) upon contact with air. Contact with moisture or water will also cause material to polymerize (non-violently).
Conditions of reactivity:	Reacts with water or moisture.
Incompatible materials:	Alcohols, amines, aqueous acids, and alkalis. Reacts with water (nonviolently).
Hazardous decomposition products:	CO, HCN, HCL, and HF.

TOXICOLOGICAL PROPERTIES

Routes of exposure:	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Skin contact <input type="checkbox"/> Skin absorption <input checked="" type="checkbox"/> Eye contact <input checked="" type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion
Acute effects of exposure:	Eyes: Can adhere to cornea. Skin: Can adhere to the skin. Can cause irritation and possibly sensitization; e.g. itching, swelling, rash, etc. Inhalation: Vapor may cause irritation of the breathing tract and sensitization. Sensitization causes an allergic (asthmatic-like) response. Hypersensitive persons may react a very low isocyanate levels. Ingestion: Effects of ingestion have not been determined. Not a likely route of exposure.

Chronic effects of exposure:	Some individuals can develop an allergic (asthmatic-like) response. Should this occur, immediately move to fresh air. Those individuals who develop an allergic reaction should avoid future use of this product.
Synergistic materials:	None known.

FIRST AID MEASURES

Eyes:	Immediately flush with plenty of water and seek medical attention.
Skin:	Wipe off skin immediately with soft cloth and then remove residue with vegetable oil. Cured foam can only be removed mechanically.
Inhalation:	Should symptoms occur, immediately move to fresh air. Call a physician if symptoms persist.
Ingestion:	Seek medical attention immediately. Do not induce vomiting unless directed by a physician.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

PREVENTIVE MEASURES

Engineering controls:	General (natural or mechanically induced fresh air movements).
Eye protection:	Goggles recommended; safety glasses with side shields as a minimum.
Skin protection:	Impermeable gloves recommended. Wear other protective clothing as required to prevent contact with the skin.
Respiratory protection:	None normally required.
Other:	No additional measures are normally required.
Handling procedures and equipment:	Avoid contact with skin, eyes, and respiratory system. Material will adhere to eyes and skin. Contents under pressure. Extremely flammable aerosol. Do not apply direct heat to the cans. Before using, remove ignition sources such as flames of equipment/tools that generate sparks. Store in a cool dry place. For industrial use only. Keep out of reach of children. Use with adequate ventilation. Always wash thoroughly after handling chemical products. Follow label / use instructions.
Storage requirements:	Store in a cool dry place. Do not store in direct sunlight. Keep from freezing. Store between 5° and 25° C.
Spill, leak or release:	Immediately wipe away spilled material before it hardens. Place in a container for proper disposal.
Waste disposal:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, provincial, and federal safety, health and environmental regulations.
Special shipping instructions:	Avoid temperature extremes. Keep from freezing.

REGULATORY INFORMATION

WHMIS classification:	B5, D1B, D2A, D2B
HMIS codes:	Health 2, Flammability 3, Reactivity 1, PPE B (Goggles, Gloves)
TDG shipping name:	Consumer Commodity, ORM-D
IATA shipping name:	Aerosols, Class 2.1, UN 1950

PREPARATION INFORMATION / CONTACTS

Prepared by:	Hilti, Inc., Tulsa, OK USA	Date of Preparation:	1/18/2008	Emergency phone number:	1 800 424 9300
Customer Service:	Hilti (Canada) Corporation, Mississauga, Ontario; 1 800 363 4458				
Health / Safety contacts:	Hilti, Inc., Tulsa, OK USA; 1 800 879 8000, Jerry Metcalf (x1003704)				
Abbreviations used:	N/E = None Established. N/Av = Not Available. HMIS = Hazardous Materials Identification System				

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