MATERIAL SAFETY DATA SHEET

Product name: CF 812 Insulating Foam – W&D
Description: Polyurethane Foam
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)

For: A D & W
P O Box 910
WESTBROOK, ME 04098

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	PEL:	TLV:	STEL:
Polymeric diphenylmethane diisocyantate	9016-87-9	C:0.02 ppm*	NE	NE
Tris(1-chloro-2-propyl) phosphate	13674-84-5	NE	NE	NE
Methyl ether	115-10-6	NE	NE	NE
Isobutane	75-28-5	1000 ppm*	1000 ppm	NE
Propane	074-98-6	1000 ppm	2500 ppm	NE
Glyceryl polypropylene glycol ether	25791-96-2	NE	NE	NE

* OSHA Transitional Exposure Limit

Abbreviations: **PEL** = OSHA Permissible Exposure Limit. **TLV** = ACGIH Threshold Limit Value. **STEL** = Short Term Exposure Limit. **C** = Ceiling. **NE** = None Established. **NA** = Not Applicable

PHYSICAL DATA

Appearance:	Yellow to tan liquid.	**Odor:**	Mild.
Vapor Density: (air = 1)	Not determined.	**Vapor Pressure:**	8.3 bar @ 68° F
Boiling Point:	Not determined.	**VOC Content:**	115.5 g/l
Evaporation Rate:	Not determined.	**Solubility in Water:**	Not soluble.
Specific Gravity:	0.9-1.1	**pH:**	Not determined.

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Flammable Gas	**Flammable Limits:**	0.4 - 32%
Extinguishing Media:	$C0_2$, Dry Chemical, Foam, Water		
Special Fire Fighting Proc.	None known for cured foam. Uncured isocyanates react with water to release $C0_2$.		
Unusual Fire and Explosion Hazards:	Extremely flammable. Contains flammable propellants under pressure. Aerosol cans exposed to fire or direct heat can rupture from pressure build-up.		

REACTIVITY DATA

Stability:	Reacts with alcohols, amines, aqueous acids, and alkalis. Reacts with water (moisture) producing CO_2. I
Hazardous Polymerization:	Will not occur. Reacts with water (nonviolently).
Decomposition Products:	Thermal decomposition can yield CO, CO_2, HCN, HCl, NO_x.
Conditions to Avoid:	Temperature extremes will shorten product shelf life; i.e. below 41° F / above 77° F.

HEALTH HAZARD DATA

Known Hazards:	**Acute**: Eye, skin, and respiratory irritation. **Chronic**: Respiratory and skin sensitization
Signs and Symptoms of Exposure:	**Eyes:** Can adhere to cornea. **Skin:** Can adhere to the skin. Can cause irritation and possibly sensitization; e.g. itching, swelling, rashes, etc. **Inhalation:** Vapor may cause irritation of the breathing tract and sensitization. Sensitization causes an allergic (asthmatic-like) response. Hypersensitive persons may react at very low isocyanate levels. **Ingestion:** Effects of ingestion have not been determined. Not a likely route of exposure.
Routes of Exposure:	Inhalation. Contact.
Carcinogenicity:	No ingredients are classified as a carcinogen by IARC, NTP or OSHA.

Medical Conditions Aggravated by Exposure:	Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	**Immediately** flush with large amounts of clean 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. Those individuals who develop an allergic reaction should avoid future use of this product.
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.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	Ensure adequate air movement (natural or mechanically induced fresh air movements).
Eye Protection:	Goggles recommended; safety glasses with side shields as a minimum.
Skin Protection:	Impermeable gloves are recommended. Wear other protective clothing as required to prevent contact with skin.
Respiratory Protection:	Not normally required.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	Avoid contact with skin, eyes, and respiratory system. Material will adhere to eyes and skin. 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 41° and 77° F. Always wash thoroughly after handling chemical products. For industrial use only. Keep out of reach of children. Follow label / use instructions.
Spill Procedures:	Wear appropriate personal protective equipment. CF 812 foam will polymerize (cure) upon contact with air/moisture. Allow product to cure, then remove for disposal. See disposal guidelines below.

REGULATORY INFORMATION

TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product contains 5 - 25% Polymeric diphenylmethane diisocyantate (CAS # 9016-87-9) which is subject to reporting under Section 313 of SARA Title III (40 CFR Part 372). (Technical note: MDI is not available in cured foam due to reaction of parts A and B upon exposure to air; i.e. when released from the can)
DOT Shipping Name:	Consumer Commodity, ORM-D.
IATA / ICAO Shipping Name:	Aerosols, flammable, Class 2.1, UN 1950
HMIS Codes:	Health 2, Flammability 3, Reactivity 1, PPE B (Goggles, Gloves)
EPA Waste Code(s):	D001,D003 (for aerosol cans)
Waste Disposal Methods:	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.
Hazard Communication	This MSDS has been prepared in accordance with the Federal OSHA Hazard Communication Standard, 29 CFR1910.1200.

CONTACTS

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