



MATERIAL SAFETY DATA SHEET

Product identifier: CFR-1 Cleaner
Product use: Aerosol solvent for cleaning Hilti foam dispensers.
Supplier: Hilti (Canada) Corporation, 2360 Meadowpine Blvd., Mississauga, Ontario L5N 6S2
Originator: Hilti, Inc., P. O. Box 21148, Tulsa, Oklahoma, USA 74121
Emergency number: Chem-Trec: 1 800 424 9300

HAZARDOUS INGREDIENTS

Ingredient	CAS Number	% (wt.)	LC ₅₀ , (rat)	LD ₅₀ (rat)	TLV	STEL
Acetone	067-64-1	40 – 70	50,100 mg/m ³ / 8Hr.	5800 mg/kg	500 ppm	750 ppm
2-Propanol	067-63-0	15 – 40	16,000 ppm / 8Hr.	5045 mg/kg	200 ppm	400 ppm
Isobutane	75-28-5	15 – 40	65,800 mg/m ³ / 4Hr.	N/Av	N/Av	N/Av
Propane	074-98-6	05 – 10	N/Av	N/Av	1000 ppm	N/E

PHYSICAL PROPERTIES

Appearance / Physical state:	Clear aerosol.	Odour:	Alcohol odour.
Specific gravity (at 20°C):	0.74 – 0.76	VOC Content:	740 – 760 g/l
Vapour pressure (at 20°C):	N/Av	Vapour density:	N/Av
Evaporation rate:	N/Av	Boiling point:	N/Av
Freezing point:	N/Av	pH:	N/Av
Coefficient of H₂O / oil distrib:	N/Av	Solubility in water:	Negligible

FIRE AND EXPLOSION DATA

Flash point / Method:	-18 C / 0 F	Flammable limits:	1.4 – 13.0%
Conditions of flammability:	Extremely flammable aerosol.	Auto-ignition temperature:	N/Av
Means of extinction:	Dry chemical, foam, CO ₂ , water.		
Special fire fighting procedures:	Containers can explode or be propelled through the air when exposed to extreme heat such as fire.		
Hazardous combustion products:	Thermal decomposition can yield CO and CO ₂ .		
Sensitivity to mechanical impact / static discharge:	Susceptible to static discharge.		

REACTIVITY DATA

Stability:	Stable.	Conditions of reactivity:	None known.
Incompatible materials:	Strong oxidizing agents, acids, and bases. Extreme heat/flame.		
Hazardous decomposition products:	None known. Thermal decomposition can yield CO and CO ₂ .		

TOXICOLOGICAL PROPERTIES

Routes of exposure:	<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		
Exposure limits:	See "Ingredients" section above.		
Acute effects of exposure:	Eyes: Irritation and corneal burns can occur from direct contact with the eyes. Skin: Prolonged or repeated skin contact can cause irritation and defatting (drying) of the skin. Inhalation: Can be irritating to the respiratory tract if inhaled. Headaches and dizziness can occur from exposure in poorly ventilated areas. Ingestion: Not a likely route of exposure. Harmful if swallowed.		
Chronic effects of exposure:	Not applicable.		
Synergistic materials:	None known		

FIRST AID MEASURES

Eyes:	Flush with plenty of water for at least 15 minutes. Contact a physician if symptoms occur.
Skin:	Wash skin with mild soap and water. Seek medical attention if any effects persist.
Inhalation:	Remove victim to fresh air. Call physician if symptoms persist.
Ingestion:	Do not induce vomiting unless directed to do so by a physician. Contact a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

PREVENTIVE MEASURES

Engineering controls:	General (natural or mechanically induced fresh air movements).
Eye protection:	Chemical splash goggles are recommended. Safety glasses with side shields as a minimum.
Skin protection:	Impermeable gloves recommended.
Respiratory protection:	None normally required. Where ventilation is inadequate to control vapors, use a NIOSH-approved respirator with organic filters.
Other:	No additional measures are normally required.
Handling procedures and equipment:	For industrial use only. Use with adequate ventilation. Do not get into eyes. Avoid prolonged or repeated contact with skin. Practice good hygiene; i.e., wash after using and before eating or smoking. Keep away from heat, sparks and flames. Do not puncture or incinerate container.
Storage requirements:	Keep out of reach of children. Store in a cool dry area. Do not expose to heat or store at temperatures above 49C (120F). Store indoors out of direct sunlight.
Spill, leak or release:	Remove all sources of ignition. Remove spillage with absorbent material. Place in closed containers for disposal.
Waste disposal:	Consult federal, provincial and local regulations for allowed means of disposal.
Special shipping instructions:	According to TDG shipping regulations. See below.

REGULATORY INFORMATION

WHMIS classification:	A, B1, B2, D2B
HMIS codes:	Health 1, Flammability 3, Reactivity 0, PPE A (Goggles)
TDG shipping name:	Consumer Commodity, ORM-D
IATA shipping name;	Aerosols, Flammable, Class 2.1, UN1950, Ltd. Qty

PREPARATION INFORMATION / CONTACTS

Prepared by:	Hilti, Inc., Tulsa, OK USA	Date of Preparation: May 25, 2012	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 6000, Jerry Metcalf (x1003704)			
Abbreviations used:	N/Av = Not Available. H = Hours. HMIS : Hazardous Materials Identification System			

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