



MSDS No.: 103  
Revision No.: 013  
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Page: 1 of 2

### MATERIAL SAFETY DATA SHEET

**Product name:** CFR-1 Cleaner  
**Description:** Cleaning agent for Hilti CF-DS1 foam dispenser  
**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)

### INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	TLV:	PEL:	STEL:
Acetone	67-64-1	500 ppm	1000 ppm	750 ppm
Isopropyl alcohol	67-63-0	200 ppm	400 ppm	400 ppm
Isobutane	75-28-5	NE	NE	NE
Propane	74-98-6	1000 ppm	1000 ppm	NE

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

### PHYSICAL DATA

<b>Appearance:</b>	Clear aerosol.	<b>Odor:</b>	Sweet pungent odor.
<b>Vapor Density: (air = 1)</b>	Not determined	<b>Vapor Pressure:</b>	Not determined.
<b>Boiling Point:</b>	Not determined	<b>VOC Content:</b>	740 – 760 g/l
<b>Evaporation Rate:</b>	Not determined	<b>Solubility in Water:</b>	Negligible.
<b>Specific Gravity:</b>	0.74 – 0.76	<b>pH:</b>	Not determined.

### FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point:</b>	0° F (- 18° C)	<b>Flammable Limits:</b>	1.4 – 13.0%
<b>Extinguishing Media:</b>	Water spray, CO <sub>2</sub> , Dry Chemical, Foam.		
<b>Special Fire Fighting Procedures:</b>	Contents under pressure. Cool exposed containers with water spray. A self-contained breathing apparatus (SCBA) should be used in fires involving chemicals.		
<b>Unusual Fire and Explosion Hazards:</b>	Extremely flammable liquid and gas under pressure. Containers can explode or be propelled through the air when exposed to extreme heat such as fire. Vapors are heavier than air and can migrate to distant ignition sources where they can be ignited. Keep away from flames or sparking equipment.		

### REACTIVITY DATA

<b>Stability:</b>	Stable.	<b>Hazardous Polymerization:</b>	Will not occur.
<b>Incompatibility:</b>	Strong oxidizing agents, acids, and bases. Extreme heat / fire.		
<b>Decomposition Products:</b>	Thermal decomposition can yield CO and CO <sub>2</sub> .		
<b>Conditions to Avoid:</b>	Exposure to high temperatures, extremely hot surfaces, flames, sparks, etc. Storage above 120° F.		

### HEALTH HAZARD DATA

<b>Known Hazards:</b>	<b>Acute:</b> Skin irritation. Eye irritation. Central nervous system (CNS) depressant. <b>Chronic:</b> Dermatitis.
<b>Signs and Symptoms of Exposure:</b>	<b>Eyes:</b> Irritation and corneal burns can occur from direct contact with the eyes. <b>Skin:</b> Prolonged or repeated skin contact can cause irritation and defatting (drying) of the skin. <b>Inhalation:</b> Can be irritating to the respiratory tract if inhaled. Headaches and dizziness can occur from excessive exposure in poorly ventilated areas. <b>Ingestion:</b> Not a likely route of exposure.
<b>Routes of Exposure:</b>	Dermal. Inhalation.
<b>Carcinogenicity:</b>	No ingredients are classified as a carcinogen by IARC, NTP or OSHA.
<b>Medical Conditions Aggravated by Exposure:</b>	Eye, skin, and respiratory conditions.

## EMERGENCY AND FIRST AID PROCEDURES

<b>Eyes:</b>	Flush <b>immediately</b> with plenty of clean water for at least 15 minutes. Contact a physician if symptoms occur.
<b>Skin:</b>	Wash with soap and water. Contact a physician if symptoms occur.
<b>Inhalation:</b>	Move victim to fresh air. Contact a physician if symptoms persist.
<b>Ingestion:</b>	Do not induce vomiting unless directed by a physician. Contact a physician immediately.
<b>Other:</b>	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

## CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

<b>Ventilation:</b>	General (natural or mechanically induced fresh air movements).
<b>Eye Protection:</b>	Splash-proof chemical goggles recommended. Safety glasses with side shields as a minimum.
<b>Skin Protection:</b>	Impermeable (nitrile) gloves recommended.
<b>Respiratory Protection:</b>	Not normally required. Where ventilation is inadequate to control vapors, use a NIOSH-approved respirator with organic vapor cartridges.

## PRECAUTIONS FOR SAFE HANDLING AND USE

<b>Handling and Storing Precautions:</b>	Use with adequate ventilation. Extremely flammable liquid and gas under pressure. Vapors are heavier than air and can be ignited by distant ignition sources. Keep vapors and spray away from extremely hot surfaces, sparks and flame. Do not puncture or incinerate container. Do not expose to excessive heat or store at temperatures above 120° F (49° C). Avoid contact with eyes, skin and clothing. Practice good hygiene; i.e. wash after using and before eating or smoking. Store indoors out of direct sunlight. For industrial use only. Keep out of reach of children.
<b>Spill Procedures:</b>	Immediately remove all sources of ignition. Material will rapidly evaporate. If possible, take up with an absorbent material and place in a container for proper disposal in accordance with all applicable local, state, or federal requirements.

## REGULATORY INFORMATION

<b>Hazard Communication:</b>	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
<b>HMIS Codes:</b>	Health 1, Flammability 3, Reactivity 0, PPE A (Goggles)
<b>DOT Shipping Name:</b>	Consumer commodity, ORM-D
<b>IATA/ICAO Shipping Name:</b>	Aerosols, flammable, n.o.s. Class 2.1, UN 1950, Ltd. Qty.
<b>TSCA Inventory Status:</b>	Chemical components listed on TSCA inventory.
<b>SARA Title III, Section 313:</b>	This product does not contain any ingredients which are subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
<b>EPA Waste Code(s):</b>	D001
<b>Waste Disposal Methods:</b>	Consult with regulatory agencies or your corporate personnel for disposal methods that comply with local, state, and federal safety, health and environmental regulations.

## CONTACTS

<b>Customer Service:</b>	1 800 879 8000	<b>Technical Service:</b>	1 800 879 8000
<b>Health / Safety:</b>	1 800 879 6000	Jerry Metcalf	(x3704)
<b>Emergency # (Chem-Trec):</b>	1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)		

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