

MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: CO® Contact Cleaner- bulk
Product Number (s): 02017, 02077

Manufactured By: CRC Industries, Inc. (215) 674-4300
885 Louis Drive, Warminster, PA 18974
24-Hour Emergency Information: CHEMTREC (800) 424-9300

Section 2: Composition/Information on Ingredients

Component	CAS NUMBER	ACGIH TLV	OSHA PEL	OTHER LIMITS	%
1-Methoxy-nonafluorobutane	163702-07-6	NE	NE	750 ppm ¹	0-100
1-Methoxy-nonafluorobutane	163702-08-7	NE	NE	750 ppm ¹	0-100
Decafluoropentane	138495-42-8	NE	NE	200 ppm	0-100

¹Total for all isomers

Section 3: Hazards Identification

Emergency Overview

Appearance & Odor: Colorless liquid.

Potential Health Effects:

Inhalation: Drowsiness, lightheadedness. High levels may cause cardiac arrhythmias.
Eyes: Irritation
Skin: Defatting, dermatitis
Ingestion: NA

Carcinogenicity: OSHA: No IARC: No NTP: No
Chronic Overexposure: Skin irritation on repeated contact.
Medical Conditions Aggravated by Exposure: Impaired cardiovascular function such as cardiac arrhythmias may be sensitized by inhalation.

Section 4: First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if necessary.
Eyes: Flush with large amounts of water for 15 minutes.
Skin: Remove contaminated clothing and wash area with soap and water.
Ingestion: Call a physician. Do not induce vomiting.

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Section 5: Fire-Fighting Measures

Flashpoint:	None	Method:	TCC, TOC	LEL:	ND	UEL:	ND
Extinguishing Media:			Not needed				
Hazardous Combustion Products:			CO, CO ₂ and HF				
Fire-fighting Instructions:			Remove containers from fire area if possible. Use self-contained breathing apparatus for fire fighting.				
NFPA:	Health:	1	Flammability:	0	Reactivity:	1	
HMIS:	Health:	1	Flammability:	0	Reactivity:	1	PPE: B

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Section 6: Accidental Release Measures

Spill/Leak Procedures: Area should be ventilated. Absorbent should be used to pick up excess material. All used and unused product should be disposed of in accordance with federal, state and local regulations.

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Section 7: Handling and Storage

Handling Procedures: Store in a cool, dry area.

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Section 8: Exposure Controls/Personal Protection

Engineering Controls: Adequate to prevent accumulation of vapors. Use mechanical means if necessary to maintain levels below the exposure limits. If working in a confined space, follow applicable OSHA regulations.

Respiratory: Use NIOSH/MSHA compliant respirators or self-contained breathing apparatus above exposure limits. Follow OSHA regulations 29 CFR 1910.134.

Protective Clothing/Equipment: Wear chemically protective gloves and safety glasses. Use a splash apron and boots if splashing occurs.

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Section 9: Physical & Chemical Properties

Physical State:	Liquid	Appearance & Odor:	Colorless liquid
Specific Gravity:	1.50-1.60	Boiling Point:	55-61°C
Freezing Point:	ND	Vapor Pressure:	> 200 mm Hg@25°C
Evaporation Rate:	Fast	Vapor Density (air = 1)	> air
pH:	NA	Solubility:	Very slight solubility in water. Soluble in many organic liquids.
Volatile Organic Compounds:%:	0 (exempt)	g/L:	0 (exempt)
		lbs./gal:	0 (exempt)

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Section 10: Stability and Reactivity

Stability: Stable Hazardous Polymerization: No
Chemical Incompatibilities: Strong oxidizers.
Materials to Avoid: Powered metals such as aluminum, magnesium, calcium, zinc, strong alkali.
Hazardous Decomposition Products: Hydrofluoric Acid and possibly Carbonyl Fluoride.

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Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. See Section 3 of this MSDS for acute symptoms of overexposure and carcinogenicity information.

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Section 12: Ecological Information

Ecotoxicity: No data available.
Environmental Fate: No data available for biodegradation.

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Section 13: Disposal Considerations

Disposal: This material if discarded may be hazardous waste under U.S. EPA RCRA regulations. All disposal activities must comply with federal, state and local regulations. Contact your local or state environmental agency for specific rules. Do not dump into sewers, on the ground or into any body of water.

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Section 14: Transportation Information

Shipping Name: Not Regulated
Hazard Class: NA UN Number: NA Packing Group: NA
Label: NA Placard: NA
Special Provisions: NA

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Section 15: Regulatory Information

TSCA: All components are either listed under TSCA or are exempt.
SARA Title III: Section 311/312: NA Section 313*: None
CERCLA/Superfund (RQ): NA
Extremely Hazardous Substances: No
California Prop 65: No
* See section 2 for percentage

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Section 16: Additional Information

Prepared By: Michelle Milburn Date: June 6, 2003
Technical Information: (800) 521-3168 CRC #: 508A-D

This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

Product Name: CO® Contact Cleaner- bulk

Product Number

CAS: Chemical Abstract Service
ppm: Parts per Million
TCC: Tag Closed Cup
LEL: Lower Explosive Limit
UEL: Upper Explosive Limit
PPE: Personal Protection Equipment
TOC: Tag Open Cup

NA: Not Applicable
ND: Not Determined
NE: Not Established
g/L: grams per Liter
lbs./gal: pounds per gallon
RQ: Reportable Quantit