



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Freeze-Off® Super Penetrant (aerosol)

Product Number (s): 05002

Product Use: Penetrant

Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

www.crcindustries.com

1-215-674-4300 (General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.

2-1246 Lorimar Drive

Mississauga, Ontario L5S 1R2

www.crc-canada.ca

1-905-670-2291

In Mexico:

CRC Industries Mexico

Av. Benito Juárez 4055 G

Colonia Orquídea

San Luís Potosí, SLP CP 78394

www.crc-mexico.com

52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Extremely Flammable. Harmful or Fatal if Swallowed. Eye Irritant. Contents Under Pressure.
Appearance & Odor: Reddish liquid, pine odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: Liquid may cause mild irritation including stinging, tearing and redness.

SKIN: Liquid may cause mild to moderate skin irritation including redness, itching and burning. Repeated contact may cause drying and cracking of skin. Product becomes colder the longer it is sprayed and may cause frostbite if sprayed on skin after extended use.

INHALATION: Breathing small amounts of vapor during normal handling is not likely to cause harmful effects. Breathing large amounts may cause irritation to the nose and throat as well as headache, drowsiness or other nervous system effects.

INGESTION: Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Main hazard is aspiration of this material into the lungs during swallowing or vomiting. This can result in lung inflammation and other lung injury.

CHRONIC EFFECTS: Unknown

TARGET ORGANS: Inadequate data available for this material

Medical Conditions Aggravated by Exposure: skin or respiratory conditions

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

| COMPONENT | CAS NUMBER | % by Wt. |
|------------------------------------|----------------------------|----------|
| Aliphatic hydrocarbon | 8052-41-3 | 10 - 15 |
| Hydrotreated petroleum distillates | 64742-47-8 / 64742-46-7 | 15 - 20 |
| Turpentine oil | 8006-64-2 | 3 - 6 |
| COzol™ 306 | proprietary blend | 3 - 6 |
| 2-Butoxyethanol | 111-76-2 | 2 - 3 |
| Diacetone alcohol | 123-42-2 | 1 - 3 |
| 1,1-Difluoroethane (HFC-152a) | 75-37-6 | 45 - 55 |

Section 4: First Aid Measures

- Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.
- Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.
- Ingestion: Do NOT induce vomiting due to aspiration hazard. Seek medical attention.

Note to Physicians: This material is an aspiration hazard. Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6)).

| | |
|---|---------------------------|
| Flash Point: 109°F / 43°C (TCC) | Upper Explosive Limit: ND |
| Autoignition Temperature: - 58°F / -50°C (estimate) | Lower Explosive Limit: ND |

Fire and Explosion Data:

Suitable Extinguishing Media: Use extinguishing media appropriate for a Class B fire.

Products of Combustion: Oxides of carbon.

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors may accumulate in a confined space and create a flammable atmosphere.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Eliminate all sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use near flames, sparks or other sources of ignition. Do not heat product. Use with adequate ventilation in order to prevent vapor build-up and a flammable atmosphere. Avoid contact with skin and eyes. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

| COMPONENT | OSHA | | ACGIH | | OTHER | | UNIT |
|--|---------|------|-------|------|-------|--------|------|
| | TWA | STEL | TWA | STEL | TWA | SOURCE | |
| Aliphatic hydrocarbon | 100 (v) | NE | 100 | NE | NE | | ppm |
| Hydrotreated petroleum distillates | NE | NE | NE | NE | NE | | |
| Turpentine oil | 100 | NE | 20 | NE | NE | | ppm |
| COzol™ 306 | NE | NE | NE | NE | NE | | |
| 2-Butoxyethanol | 50 (s) | NE | 20 | NE | NE | | ppm |
| Diacetone alcohol | 50 | NE | 50 | NE | NE | | ppm |
| 1,1-Difluoroethane | NE | NE | NE | NE | 1000 | AIHA | ppm |
| N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated | | | | | | | |

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile or other synthetic rubbers. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid
 Color: reddish
 Odor: pine
 Odor Threshold: ND
 Specific Gravity: 0.822
 Initial Boiling Point: ND
 Freezing Point: ND
 Vapor Pressure: ND
 Vapor Density: > 1 (air = 1)
 Evaporation Rate: slow
 Solubility: negligible
 Coefficient of water/oil distribution: ND
 pH: NA
 Volatile Organic Compounds: wt %: 36.55 g/L: 300.4 lbs./gal: 2.5

Section 10: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: Heat, sources of ignition
 Incompatible Materials: Strong oxidizers
 Hazardous Decomposition Products: Oxides of carbon
 Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

| Component | Oral LD50 (rat) | Dermal LD50 (rabbit) | Inhalation LC50 (rat) |
|------------------------------------|-----------------|----------------------|------------------------------|
| Aliphatic hydrocarbon | > 5 mg/kg | > 3 mg/kg | > 1400 ppm/8H |
| Hydrotreated petroleum distillates | > 5 g/kg | > 2 g/kg | > 5 mg/L/4H |
| Turpentine oil | 5760 mg/kg | No data | 13,700 mg/m ³ /4H |
| COzoI™ 306 (Ingredient #1) | 3200 mg/kg | 5 g/kg | No data |
| COzoI™ 306 (Ingredient #2) | No data | No data | No data |
| COzoI™ 306 (Ingredient #3) | 25,000 mg/kg | No data | No data |
| 2-Butoxyethanol | 470 mg/kg | 220 mg/kg | 450 ppm/4H |
| Diacetone alcohol | 2520 mg/kg | 13,500 mg/kg | No data |
| 1,1-Difluoroethane | No data | No data | 25 ppm/30M |

Chronic Toxicity:

| <u>Component</u> | <u>OSHA Carcinogen</u> | <u>IARC Carcinogen</u> | <u>NTP Carcinogen</u> | <u>Irritant</u> | <u>Sensitizer</u> |
|------------------------------------|------------------------|------------------------|-----------------------|--|-------------------|
| Aliphatic hydrocarbon | No | No | No | E (mild) / S (mild) | Unknown |
| Hydrotreated petroleum distillates | No | No | No | E (mild) / S (mild) / R (mild) | Unknown |
| Turpentine oil | No | No | No | E (moderate) / S (moderate) | Unknown |
| COzol™ 306 (Ingredient #1) | No | No | No | E (moderate) / S (moderate) | No |
| COzol™ 306 (Ingredient #2) | No | No | No | E (moderate) / S (moderate) / R (mild) | Unknown |
| COzol™ 306 (Ingredient #3) | No | No | No | No | Unknown |
| 2-Butoxyethanol | No | No | No | E (severe) / S (mild) / R (mild) | No |
| Diacetone alcohol | No | No | No | E (moderate) / R (mild) | Unknown |
| 1,1-Difluoroethane | No | No | No | No | Unknown |

| | | |
|---------|----------|-----------------|
| E – Eye | S – Skin | R - Respiratory |
|---------|----------|-----------------|

Reproductive Toxicity: No information available
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: 2-Butoxyethanol 96 Hr LC50, Bluegill sunfish: 1490 mg/L
 24 Hr LC50, daphnia: 1720 mg/L

Persistence / Degradability: No information available

Bioaccumulation / Accumulation: No information available

Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. (See 40 CFR Part 261.20 – 261.33)
 Empty aerosol containers may be recycled. Any liquids should be collected and properly disposed as hazardous waste.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): UN1950, Aerosols, flammable, 2.1, Limited Quantity**

ICAO/IATA (air): UN1950, Aerosols, flammable, 2.1, Limited Quantity

IMO/IMDG (water): UN1950, Aerosols, 2.1, Limited Quantity

Special Provisions: **This product can be classified and labeled as 'Consumer Commodity, ORM-D' for domestic ground shipping until January 1, 2014.
If shipping as limited quantity by ground, note that shipping papers are not required.

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

| | | |
|------------------------------------|-----------------------|-----|
| Section 311/312 Hazard Categories: | Fire Hazard | Yes |
| | Reactive Hazard | No |
| | Release of Pressure | Yes |
| | Acute Health Hazard | Yes |
| | Chronic Health Hazard | No |

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
2-Butoxyethanol (Glycol ethers category) (2.5%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

Occupational Safety and Health Administration (OSHA):

This product is regulated under the Hazard Communication Standard.

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: cumene

Consumer Products VOC Regulations: In states with Consumer Products VOC regulations, this product is compliant as a penetrant.

State Right to Know:

New Jersey: 8052-41-3, 111-76-2, 8002-09-3, 8006-64-2, 123-42-2, 75-37-6
Pennsylvania: 8052-41-3, 123-42-2, 111-76-2
Massachusetts: 8052-41-3, 8006-64-2, 123-42-2, 111-76-2, 75-37-6
Rhode Island : 8052-41-3, 111-76-2, 8006-64-2, 123-42-2,

Canadian Regulations:

Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D1A, D1B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

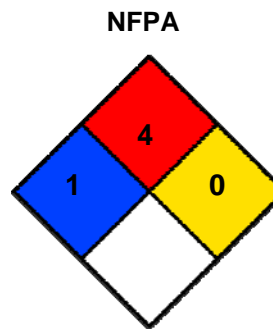
European Union Regulations:

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

Section 16: Other Information

| HMIS® (II) | |
|----------------------|----------|
| Health: | 1 |
| Flammability: | 4 |
| Reactivity: | 0 |
| PPE: | B |



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
 CRC #: 447B
 Revision Date: 01/11/2013

Changes since last revision: Section 15: Prop 65

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. 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. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

- | | |
|--|---|
| ACGIH: American Conference of Governmental Industrial Hygienists | NA: Not Applicable |
| CAS: Chemical Abstract Service | ND: Not Determined |
| CFR: Code of Federal Regulations | NIOSH: National Institute of Occupational Safety & Health |
| DOT: Department of Transportation | NFPA: National Fire Protection Association |
| DSL: Domestic Substance List | NTP: National Toxicology Program |
| g/L: grams per Liter | OSHA: Occupational Safety and Health Administration |
| HMIS: Hazardous Materials Identification System | PMCC: Pensky-Martens Closed Cup |
| IARC: International Agency for Research on Cancer | PPE: Personal Protection Equipment |
| IATA: International Air Transport Association | ppm: Parts per Million |
| ICAO: International Civil Aviation Organization | RoHS: Restriction of Hazardous Substances |
| IMDG: International Maritime Dangerous Goods | STEL: Short Term Exposure Limit |
| IMO: International Maritime Organization | TCC: Tag Closed Cup |
| lbs./gal: pounds per gallon | TWA: Time Weighted Average |
| LC: Lethal Concentration | WHMIS: Workplace Hazardous Materials Information System |
| LD: Lethal Dose | |