



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Knock'er Loose® Plus Penetrating Solvent (aerosol)

Product Number (s): 03027

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: Flammable. Harmful or Fatal if Swallowed. May Cause Eye and Skin Irritation.
Contents Under Pressure.

As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Appearance & Odor: Reddish liquid, pleasant 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.

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, dizziness, confusion, 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 evaluation

Medical Conditions Aggravated by Exposure: skin or respiratory conditions

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

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Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
1,1-Difluoroethane (HFC-152a)	75-37-6	45 - 55
Hydrotreated middle distillates	64742-46-7	10 - 20
Aliphatic hydrocarbon	8052-41-3	5 - 15
Dipropylene glycol n-propyl ether	29911-27-1	3 - 8
Dipropylene glycol methyl ether acetate	88917-22-0	3 - 8
Pine resin distillate	8006-64-2	3 - 8
Diisobutyl ketone	108-83-8	2 - 5

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.

Section 5: Fire-Fighting Measures

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

Flash Point:	126°F (COC)	Upper Explosive Limit:	6.0 (estimate)
Autoignition Temperature:	ND	Lower Explosive Limit:	1.0 (estimate)

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.

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.

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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 use on energized equipment. 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. Avoid breathing vapors or mist. 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 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	
1,1-Difluoroethane	NE	NE	NE	NE	1000	AIHA	ppm
Hydrotreated middle distillates	5*	NE	5*	10*	NE		mg/m ³
Aliphatic hydrocarbon	100 (v)	NE	100	NE	NE		ppm
Dipropylene glycol n-propyl ether	NE	NE	NE	NE	NE		
Dipropylene glycol methyl ether acetate	NE	NE	NE	NE	NE		
Pine resin distillate	100	NE	20	NE	NE		ppm
Diisobutyl ketone	50	NE	25	NE	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated * – oil mist							

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.

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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: pleasant pine

Odor Threshold: ND

Specific Gravity: 0.84

Initial Boiling Point: 315°F

Freezing Point: ND

Vapor Pressure: ND

Vapor Density: > 1 (air = 1)

Evaporation Rate: moderate

Solubility: negligible

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 22.0 g/L: 184.8 lbs./gal: 1.5

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Heat, sources of ignition

Incompatible Materials: Strong oxidizers, strong acids

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:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
1,1-Difluoroethane	No data	No data	25 ppm/30M
Hydrotreated middle distillates	> 5 g/kg	> 2 g/kg	> 5 mg/L/4H
Aliphatic hydrocarbon	5 g/kg	3 g/kg	> 1400 ppm/8H
Dipropylene glycol n-propyl ether	1620 µL/kg	5660 µL/kg	No data
Dipropylene glycol methyl ether acetate	No data	No data	No data
Pine resin distillate	5760 mg/kg	No data	13,700 mg/m ³ /4H
Diisobutyl ketone	5750 mg/kg	16,120 mg/kg	No data

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Chronic Toxicity:

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
1,1-Difluoroethane	No	No	No	No	Unknown
Hydrotreated middle distillates	No	No	No	E, S, R (mild)	Unknown
Aliphatic hydrocarbon	No	No	No	E & S (mild)	Unknown
Dipropylene glycol n-propyl ether	No	No	No	E (mild)	Unknown
Dipropylene glycol methyl ether acetate	No	No	No	E (moderate) / S (mild)	No
Pine resin distillate	No	No	No	E & S (moderate)	Unknown
Diisobutyl ketone	No	No	No	E & S (mild)	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: Hydrotreated middle distillate -- 96 Hr LC50 Pimephales promelas: 35 mg/L (flow-through)

 Dipropylene glycol methyl ether acetate -- 96 Hr LC50 Pimephales promelas: 151 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)
 Aerosol containers should be emptied and depressurized before disposal. Empty aerosol containers may be recycled.

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): Consumer Commodity, ORM-D

ICAO/IATA (air): Consumer Commodity, ID8000, 9

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

Special Provisions: None

Section 15: Regulatory Information

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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:
None

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

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: NONE

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

State Right to Know:

New Jersey:	8052-41-3, 8002-09-3, 8006-64-2, 108-83-8, 124-38-9, 75-37-6
Pennsylvania:	8052-41-3, 108-83-8, 124-38-9
Massachusetts:	8052-41-3, 8006-64-2, 108-83-8, 124-38-9, 75-37-6
Rhode Island :	8052-41-3, 8006-64-2, 108-83-8, 124-38-9

Canadian Regulations:

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

WHMIS Hazard Class: A, B5, D2B

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.

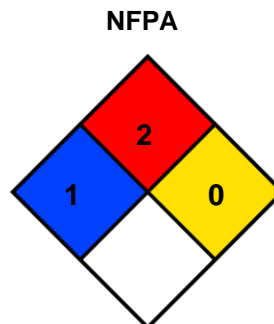
Additional Regulatory Information: None

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Section 16: Other Information

HMIS® (II)	
Health:	1
Flammability:	2
Reactivity:	0
PPE:	B



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

Prepared By: Michelle Rudnick
CRC #: 548
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Changes since last revision: Formula change

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
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substance List
g/L: grams per Liter
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization NA: Not Applicable
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
lbs./gal: pounds per gallon
LC: Lethal Concentration
LD: Lethal Dose

ND: Not Determined
NIOSH: National Institute of Occupational Safety & Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
ppm: Parts per Million
RoHS: Restriction of Hazardous Substances
STEL: Short Term Exposure Limit
TCC: Tag Closed Cup
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Information System