SAFETY DATA SHEET

1. Identification

Product identifier **Knock'er Loose™ Penetrating Solvent - 368 g**

Other means of identification

Product Code No. 73020 (Item# 1006143)

Recommended use Penetrant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Canada Co.

Address 83 Galaxy Blvd
Unit 35 - 37
Toronto, ON M9W 5X6
Canada

Telephone

General Information 416-847-7750

24-Hour Emergency (CHEMTREC) 800-424-9300 (Canada)

Website www.crc-canada.ca

E-mail Support.CA@crcindustries.com

2. Hazard identification

Physical hazards	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1A
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word Danger

Hazard statement Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Avoid breathing mist or vapor. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Avoid release to the environment.

Response IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage.

Storage Store locked up. Protect from sunlight. Store in a well-ventilated place.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), hydrotreated middle		64742-46-7	15 - 40
distillates (petroleum), hydrotreated light		64742-47-8	10 - 30
naphtha (petroleum), hydrotreated heavy		64742-48-9	10 - 30
dipropylene glycol methyl ether acetate		88917-22-0	7 - 13
turpentine, oil		8006-64-2	7 - 13
2,6-dimethyl-4-heptanone		108-83-8	1 - 5
carbon dioxide		124-38-9	1 - 5
pine oil		8002-09-3	1 - 5

The exact percentage (concentration) of composition has been withheld as a trade secret.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Headache. Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120 °F/49 °C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	25 ppm	
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	TWA	5 mg/m3	Inhalable fraction.
turpentine, oil (CAS 8006-64-2)	TWA	20 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	145 mg/m3	
		25 ppm	
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	
		30000 ppm	
	TWA	9000 mg/m3	
		5000 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	200 mg/m3	Vapor.
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	25 ppm	
carbon dioxide (CAS 124-38-9)	STEL	15000 ppm	
	TWA	5000 ppm	
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	200 mg/m3	Non-aerosol.
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	TWA	0.2 mg/m3	Mist.
turpentine, oil (CAS 8006-64-2)	TWA	20 ppm	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	25 ppm	
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	TWA	5 mg/m3	Inhalable fraction.
turpentine, oil (CAS 8006-64-2)	TWA	20 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	25 ppm
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
dipropylene glycol methyl ether acetate (CAS 88917-22-0)	STEL	1164 mg/m3
		150 ppm
	TWA	776 mg/m3
		100 ppm
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	TWA	525 mg/m3
turpentine, oil (CAS 8006-64-2)	TWA	20 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	145 mg/m3	
		25 ppm	
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	
		30000 ppm	
	TWA	9000 mg/m3	
		5000 ppm	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
turpentine, oil (CAS 8006-64-2)	TWA	112 mg/m3	
		20 ppm	

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	15 minute	30 ppm	
	8 hour	25 ppm	
carbon dioxide (CAS 124-38-9)	15 minute	30000 ppm	
	8 hour	5000 ppm	
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	15 minute	250 mg/m3	Vapor.
	8 hour	200 mg/m3	Vapor.
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	15 minute	10 mg/m3	
	8 hour	5 mg/m3	
turpentine, oil (CAS 8006-64-2)	15 minute	30 ppm	
	8 hour	20 ppm	

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Canada - Alberta OELs: Skin designation

distillates (petroleum), hydrotreated light (CAS 64742-47-8)	Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

distillates (petroleum), hydrotreated light (CAS 64742-47-8)	Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

distillates (petroleum), hydrotreated light (CAS 64742-47-8)	Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Rubber.

Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Not available.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Aerosol.
Color	Red.
Odor	Pleasant pine.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-121 °F (-85 °C) estimated
Initial boiling point and boiling range	315 °F (157.2 °C) estimated
Flash point	147 °F (63.9 °C) Tag Closed Cup
Evaporation rate	Moderate.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.6 % estimated
Flammability limit - upper (%)	8.3 % estimated
Vapor pressure	1269.6 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.85 estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	401 °F (205 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Percent volatile	86.7 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	Aldehydes. Ketones. Organic acids. Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.

Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. Headache. Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Product	Species	Test Results
Knock'er Loose™ Penetrating Solvent - 368 g		
Acute		
Dermal		
LD50	Rabbit	9017 mg/kg
Inhalation		
LC50	Rat	36610 mg/l, 1 hours

Components	Species	Test Results
2,6-dimethyl-4-heptanone (CAS 108-83-8)		
Acute		
Dermal		
LD50	Rabbit	16200 mg/kg
Inhalation		
LC50	Rat	> 5 mg/l, 4 hours
Oral		
LD50	Rat	5285 mg/kg
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg, 2.5 hours
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
turpentine, oil (CAS 8006-64-2)		
Acute		
Inhalation		
LC50	Rat	3590 mg/l, 1 Hours
Oral		
LD50	Rat	5760 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitization

ACGIH sensitization

TURPENTINE AND SELECTED MONOTERPENES (CAS 8006-64-2)	Dermal sensitization

Canada - Alberta OELs: Irritant

2,6-dimethyl-4-heptanone (CAS 108-83-8)	Irritant

Canada - Manitoba OELs Hazard: Dermal sensitization

turpentine, oil (CAS 8006-64-2)	Dermal sensitization

Canada - Quebec OELs: Sensitizer

turpentine, oil (CAS 8006-64-2)	Sensitizer.

Canada - Saskatchewan OELs Hazard Data: Sensitiser

turpentine, oil (CAS 8006-64-2)	Sensitizer.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

ACGIH Carcinogens

turpentine, oil (CAS 8006-64-2)	A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	Not classifiable as a human carcinogen.
turpentine, oil (CAS 8006-64-2)	Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
distillates (petroleum), hydrotreated light (CAS 64742-47-8)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	> 1000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Contents under pressure. Do not puncture, incinerate or crush. Empty container can be recycled. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number	UN1950
UN proper shipping name	AEROSOLS, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	80

IATA

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	2L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

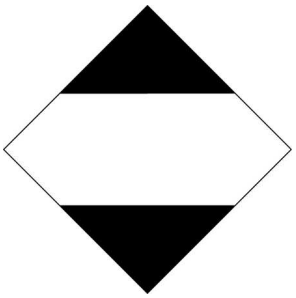
IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA



IMDG; TDG



15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

carbon dioxide (CAS 124-38-9)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

carbon dioxide (CAS 124-38-9) Listed.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 08-28-2019

Version # 01

Further information CRC # 548A/1002565

Disclaimer 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's 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 (M)SDS consult your supervisor, a health & safety professional, or CRC Canada Co..

Revision information

Product and Company Identification: Product Codes
Composition/information on ingredients: Component information
Accidental release measures: Personal precautions, protective equipment and emergency procedures
Accidental release measures: Methods and materials for containment and cleaning up
Handling and storage: Precautions for safe handling
Handling and storage: Conditions for safe storage, including any incompatibilities
Physical & Chemical Properties: Multiple Properties
Ecological Information: Ecotoxicity
Transport Information: Material Transportation Information
Other information: Further information
GHS: Classification