SAFETY DATA SHEET

1. Identification

Product identifier Knock'er Loose® Penetrating Solvent

Other means of identification

No. 03021 (Item# 1003272) Product code

Recommended use Penetrant Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

CRC Industries. Inc. Company name

885 Louis Dr. **Address** Warminster, PA 18974 US

Telephone

215-674-4300 **General Information Technical Assistance** 800-521-3168 **Customer Service** 800-272-4620 24-Hour Emergency 800-424-9300 (US)

(CHEMTREC) 703-527-3887 (International) Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Category 4 Flammable liquids Category 2 **Health hazards** Skin corrosion/irritation

> Serious eye damage/eye irritation Category 2A Sensitization, skin Category 1A Aspiration hazard Category 1 Hazardous to the aquatic environment, Category 2

long-term hazard

OSHA defined hazards Not classified.

Label elements

Environmental hazards



Signal word

Hazard statement Combustible liquid. 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 with long lasting

effects.

Precautionary statement

Prevention Keep away from flames and hot surfaces-No smoking. Use with adequate ventilation. Open doors

and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection. 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 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. In case of fire: Do not use water jet as an extinguisher, as

this will spread the fire. Collect spillage.

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Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), hydrotreated middle	I	64742-46-7	50 - 60
dipropylene glycol monomethyl ether acetate		88917-22-0	10 - 20
dipropylene glycol monopropyl ether (dpmp)		29911-27-1	10 - 20
turpentine, oil		8006-64-2	10 - 20
2,6-dimethyl-4-heptanone		108-83-8	3 - 5
distillates (petroleum), hydrotreated light	I	64742-47-8	1 - 3
naphtha (petroleum), hydrotreated heavy		64742-48-9	1 - 3
pine oil		8002-09-3	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Call a physician if symptoms develop or persist.

Remove contaminated clothing immediately and wash skin with soap and water. In case of Skin contact

eczema or other skin disorders: Seek medical attention and take along these instructions. Wash

contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

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

Indication of immediate medical attention and special treatment needed

General information

Aspiration may cause pulmonary edema and pneumonitis. 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.

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

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

Unsuitable extinguishing media

Ingestion

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do equipment/instructions so without risk.

General fire hazards Combustible liquid.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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

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.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. 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

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Components	Туре	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	PEL	290 mg/m3	
,		50 ppm	
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	PEL	400 mg/m3	
		100 ppm	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	PEL	5 mg/m3	Mist.
,		400 mg/m3	
		100 ppm	
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	PEL	400 mg/m3	
,		100 ppm	
turpentine, oil (CAS 8006-64-2)	PEL	560 mg/m3	
,		100 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	25 ppm	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	TWA	5 mg/m3	Inhalable fraction.
turpentine, oil (CAS 8006-64-2)	TWA	20 ppm	

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US. NIOSH: Pocket Guide to Che Components	mical Hazards Type	Value	Form
2,6-dimethyl-4-heptanone (CAS 108-83-8)	TWA	150 mg/m3	
,		25 ppm	
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m3	
distillates (petroleum), hydrotreated middle (CAS 64742-46-7)	STEL	10 mg/m3	Mist.
,	TWA	5 mg/m3	Mist.
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	TWA	400 mg/m3	
,		100 ppm	
turpentine, oil (CAS 8006-64-2)	TWA	560 mg/m3	
,		100 ppm	

Biological limit values

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

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. Provide

Individual protection measures, such as personal protective equipment

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

eyewash station.

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Rubber. Other Wear appropriate chemical resistant clothing.

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a Respiratory protection

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.

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

General hygiene considerations

When using do not smoke. 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. Contaminated work clothing should not

be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Liquid. Physical state **Form** Liquid. Color Red.

Odor Pleasant pine. **Odor threshold** Not available. Not available. Ha

Melting point/freezing point -121 °F (-85 °C) estimated Initial boiling point and boiling 311 °F (155 °C) estimated

range

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

0.7 % estimated

(%)

Flammability limit - upper

(%)

8.3 % estimated

4.7 hPa estimated Vapor pressure

Vapor density > 1 (air = 1)

Relative density 0.86

Solubility (water) Negligible. Not available. Partition coefficient

(n-octanol/water)

401 °F (205 °C) estimated **Auto-ignition temperature**

Decomposition temperature Not available. **Viscosity (kinematic)** Not available. Percent volatile 100 % estimated

10. Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. Reactivity

Material is stable under normal conditions. **Chemical stability**

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Strong acids. Strong bases. Strong oxidizing agents. Incompatible materials Aldehydes. Ketones. Organic acids. Carbon oxides. Hazardous decomposition

products

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Causes skin irritation. May cause an allergic skin reaction. Skin contact

Eve contact Causes serious eye irritation.

Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious Ingestion

chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. 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

May be fatal if swallowed and enters airways. **Acute toxicity**

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

dipropylene glycol monomethyl ether acetate (CAS 88917-22-0)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Rat > 20 mg/l, 4 Hours

Oral LD50

Rat > 5000 mg/kg Components Species Test Results

dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1)

Acute Dermal

LD50 Rabbit

> 2000 mg/kg 5340 mg/kg

Oral

LD50 Rat

> 2000 mg/kg 1475 mg/kg

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

<u>Acute</u> Dermal

LD50 Rat > 2000 mg/kg

distillates (petroleum), hydrotreated middle (CAS 64742-46-7)

Acute Dermal

LD50 Rat > 2000 mg/kg

Oral

LD50 Rat > 5000 mg/kg

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Acute Dermal

LD50 Rabbit > 2000 mg/kg

turpentine, oil (CAS 8006-64-2)

Acute Inhalation

LC50 Rat 3590 mg/l, 1 Hours

Oral

LD50 Rat 5760 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye Causes serious eye irritation.

irritation

Respiratory or skin sensitization

ACGIH sensitization

TURPENTINE AND SELECTED MONOTERPENES Dermal sensitization

(CAS 8006-64-2)

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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

Specific target organ toxicity - Not classified.

single exposure

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

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting,

may cause chemical pneumonia, pulmonary injury or death.

Prolonged inhalation may be harmful. **Chronic effects**

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	l est Results

dipropylene glycol monomethyl ether acetate (CAS 88917-22-0)

Aquatic

Acute

Crustacea LC50 Water flea (Daphnia magna) 2701 mg/l, 48 hours Fish LC50 Fathead minnow (Pimephales promelas) 151 mg/l, 96 hours Rainbow trout, donaldson trout 111 mg/l, 96 hours

(Oncorhynchus mykiss)

dipropylene glycol monopropyl ether (dpmp) (CAS 29911-27-1)

Aquatic

Acute

Crustacea EC50 Water flea (Daphnia magna) > 100 mg/l, 48 hours LC50 Fish Rainbow trout, donaldson trout > 100 mg/l, 96 hours (Oncorhynchus mykiss)

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

Aquatic

Acute

Crustacea EC50 Water flea (Daphnia magna) 1.1 mg/l, 48 hours Fish LC50 Fathead minnow (Pimephales promelas) 3 mg/l, 96 hours

distillates (petroleum), hydrotreated middle (CAS 64742-46-7)

Aquatic

Crustacea EC50 Water flea (Daphnia pulex) 2.7 - 5.1 mg/l, 48 hours Rainbow trout, donaldson trout 8.8 mg/l, 96 hours Fish LC50 (Oncorhynchus mykiss)

8.8 mg/l, 96 hours

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Aquatic

Crustacea EC50 Water flea (Daphnia pulex) 2.7 - 5.1 mg/l, 48 hours Fish LC50 Rainbow trout, donaldson trout 8.8 mg/l, 96 hours (Oncorhynchus mykiss)

8.8 mg/l, 96 hours

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

dipropylene glycol monomethyl ether acetate 0.61 OECD 107 dipropylene glycol monopropyl ether (dpmp) 0.87 OECD 107 0.88 OECD 107

No data available. Mobility in soil

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation

potential.

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

13. Disposal considerations

Disposal of waste from residues / unused products

This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance

with all applicable regulations.

Hazardous waste code

Not regulated.

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

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Hazardous Substances: Reportable quantity

Not listed.

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.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

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

Other Flavoring Substances with OSHA PEL's

Food and Drug

Not regulated.

Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

No

Section 311/312 Immediate Hazard - Yes
Hazard categories Delayed Hazard - No
Fire Hazard - Yes

Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated middle (CAS 64742-46-7)

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naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

US. New Jersey Worker and Community Right-to-Know Act

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

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

pine oil (CAS 8002-09-3) turpentine, oil (CAS 8006-64-2)

US. Massachusetts RTK - Substance List

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

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

turpentine, oil (CAS 8006-64-2)

US. Pennsylvania Worker and Community Right-to-Know Law

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

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

US. Rhode Island RTK

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

naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

turpentine, oil (CAS 8006-64-2)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

benzene (CAS 71-43-2)

ethylbenzene (CAS 100-41-4)

naphthalene (CAS 91-20-3)

Listed: February 27, 1987

Listed: June 11, 2004

Listed: April 19, 2002

US - California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2) Listed: December 26, 1997 toluene (CAS 108-88-3) Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2) Listed: December 26, 1997

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 100 %

51.100(s))

Consumer products

Not regulated

(40 CFR 59, Subpt. C)

State

Consumer products This product is regulated as a Penetrant. This product is compliant for use in all 50 states.

VOC content (CA) 24 % VOC content (OTC) 24 %

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
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, including date of preparation or last revision

Issue date05-06-2016Revision date08-18-2017Prepared byAllison Yoon

Version # 04

Further information CRC # 548A/1002565

HMIS® ratings Health: 1

Flammability: 2 Physical hazard: 0 Personal protection: B

NFPA ratings Health: 1

Flammability: 2 Instability: 0

NFPA ratings



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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 Industries, Inc..

Revision Information This document has undergone significant changes and should be reviewed in its entirety.