

# SAFETY DATA SHEET

## 1. Identification

**Product identifier Brakleen® Non-Chlorinated Brake Parts Cleaner** 

Other means of identification

75088 Product code

Recommended use Brake parts cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Canada Co. 2-1246 Lorimar Dr. **Address** 

Mississauga, Ontario L5S 1R2

Canada

Telephone 905-670-2291 Website www.crc-canada.ca

E-mail Support.CA@crcindustries.com

**Emergency phone number** 24-Hour Emergency 800-424-9300 (Canada)

> 703-527-3887 (International) (CHEMTREC)

## 2. Hazard(s) identification

**Physical hazards** Flammable aerosols Category 1

> Gases under pressure Compressed gas

**Health hazards** Acute toxicity, oral Category 3

> Skin corrosion/irritation Category 2 Serious eve damage/eve irritation Category 2A Reproductive toxicity (fertility, the unborn Category 2

child)

Specific target organ toxicity, single exposure Category 1 (central nervous system, eyes)

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

exposure

Category 2 (central nervous system, kidney,

peripheral nervous system)

Aspiration hazard Category 1 Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment,

long-term hazard

Category 2

## Label elements

**Environmental hazards** 



Signal word

Danger **Hazard statement** 

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Toxic if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. Suspected of damaging fertility. Causes damage to organs (central nervous system, eyes) by ingestion. May cause damage to organs (central nervous system, kidney, peripheral nervous system) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Material name: Brakleen® Non-Chlorinated Brake Parts Cleaner SDS CANADA 1 / 13 75088 Version #: 01 Issue date: 11-23-2016

#### **Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area.

Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid release to the

environment.

Response IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Rinse

mouth. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical

advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. 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. IF

exposed or concerned: Call a POISON CENTER/doctor. Collect spillage.

**Storage** Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated

place. Do not expose to temperatures exceeding 50°C/122°F.

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

Other hazards None known.

# 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	Common name and synonyms	CAS number	%
methanol		67-56-1	30 - 60
toluene		108-88-3	10 - 30
acetone		67-64-1	7 - 13
carbon dioxide		124-38-9	5 - 10
n-heptane		142-82-5	5 - 10
2-methylhexane		591-76-4	1 - 5
3-methylhexane		589-34-4	1 - 5
heptane, branched, cyclic and linear		426260-76-6	1 - 5
methylcyclohexane		108-87-2	1 - 5
naphtha (petroleum), hydrotreated light		64742-49-0	1 - 5
solvent naphtha (petroleum), light aliph.		64742-89-8	1 - 5
3,3-dimethylpentane		562-49-2	0.1 - 1
3-ethylpentane		617-78-7	0.1 - 1

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** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTER or doctor/physician if you feel unwell.

**Skin contact** Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get

medical advice/attention. 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. Do not use

mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

a pocket mask equipped with a one-way valve of other proper respiratory medical device.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Edema. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

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

#### **General information**

media

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

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

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting

In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

equipment/instructions
Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. In the

event of fire and/or explosion do not breathe fumes.

General fire hazards Extremely flammable aerosol. 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. Do not breathe 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. 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 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. 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	Туре	Value
2-methylhexane (CAS 591-76-4)	STEL	500 ppm

Material name: Brakleen® Non-Chlorinated Brake Parts Cleaner 75088 Version #: 01 Issue date: 11-23-2016

US.	<b>ACGIH</b>	Threshold	<b>Limit Values</b>

Components	Туре	Value	
	TWA	400 ppm	
3,3-dimethylpentane (CAS	STEL	500 ppm	
562-49-2)	TWA	400 ppm	
3-ethylpentane (CAS	STEL	500 ppm	
317-78-7)	0122	ооо ррии	
•	TWA	400 ppm	
3-methylhexane (CAS 589-34-4)	STEL	500 ppm	
	TWA	400 ppm	
acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
methanol (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	
methylcyclohexane (CAS 108-87-2)	STEL	500 ppm	
	TWA	400 ppm	
n-heptane (CAS 142-82-5)	STEL	500 ppm	
(2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	TWA	400 ppm	
toluene (CAS 108-88-3)	TWA	20 ppm	
Canada. Alberta OELs (Occupatio	_		
Components	Туре	Value	
2-methylhexane (CAS 591-76-4)	STEL	2050 mg/m3	
		500 ppm	
	TWA	1640 mg/m3	
		400 ppm	
3,3-dimethylpentane (CAS 562-49-2)	TWA STEL	400 ppm 2050 mg/m3	
	STEL	400 ppm 2050 mg/m3 500 ppm	
		400 ppm 2050 mg/m3 500 ppm 1640 mg/m3	
562-49-2)	STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm	
	STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3	
562-49-2) 3-ethylpentane (CAS	STEL TWA STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3	
562-49-2) 3-ethylpentane (CAS	STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3 500 ppm 1640 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS	STEL TWA STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3	
3-ethylpentane (CAS 617-78-7)	STEL TWA STEL TWA	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS	STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3 500 ppm 1640 mg/m3 400 ppm 2050 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS	STEL TWA STEL TWA	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4)	STEL TWA STEL TWA STEL TWA	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4)	STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4)	STEL TWA STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4)	STEL TWA STEL TWA STEL TWA	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1600 mg/m3 750 ppm 1200 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1)	STEL TWA STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4)	STEL TWA STEL TWA STEL TWA STEL TWA STEL TWA	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1800 mg/m3 750 ppm 1200 mg/m3 500 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1)	STEL TWA STEL TWA STEL TWA STEL TWA STEL TWA	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 750 ppm 1800 mg/m3 750 ppm 1200 mg/m3 500 ppm	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1)	STEL TWA STEL TWA STEL TWA STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1800 mg/m3 750 ppm 1200 mg/m3 500 ppm 54000 mg/m3	
3-ethylpentane (CAS 617-78-7) 3-methylhexane (CAS 589-34-4) acetone (CAS 67-64-1)	STEL TWA STEL TWA STEL TWA STEL TWA STEL TWA STEL	400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 2050 mg/m3  500 ppm 1640 mg/m3 400 ppm 1640 mg/m3 400 ppm 1600 mg/m3 3000 ppm 54000 mg/m3  30000 ppm 9000 mg/m3	

Canada. Alberta OELs (Occupational Health & Safety	Code, Schedule 1, Table 2)
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Components	Type	Value	
	TWA	262 mg/m3	
		200 ppm	
methylcyclohexane (CAS 108-87-2)	STEL	2050 mg/m3	
·		500 ppm	
	TWA	1610 mg/m3	
		400 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3	
· · · · · · · · · · · · · · · · · · ·		400 ppm	
n-heptane (CAS 142-82-5)	STEL	2050 mg/m3	
,		500 ppm	
	TWA	1640 mg/m3	
		400 ppm	
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	TWA	1590 mg/m3	
(		400 ppm	
toluene (CAS 108-88-3)	TWA	188 mg/m3	
,		50 ppm	

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

Components	Туре	Value	
2-methylhexane (CAS 591-76-4)	STEL	500 ppm	
	TWA	400 ppm	
3,3-dimethylpentane (CAS 562-49-2)	STEL	500 ppm	
	TWA	400 ppm	
3-ethylpentane (CAS 617-78-7)	STEL	500 ppm	
	TWA	400 ppm	
3-methylhexane (CAS 589-34-4)	STEL	500 ppm	
,	TWA	400 ppm	
acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
carbon dioxide (CAS 124-38-9)	STEL	15000 ppm	
,	TWA	5000 ppm	
methanol (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	
methylcyclohexane (CAS 108-87-2)	STEL	500 ppm	
•	TWA	400 ppm	
n-heptane (CAS 142-82-5)	STEL	500 ppm	
,	TWA	400 ppm	
toluene (CAS 108-88-3)	TWA	20 ppm	
Canada. Manitoba OELs (Reg. 217	7/2006, The Workplace Safety	And Health Act)	
0	T	, V-1	

Components	Туре	Value	
2-methylhexane (CAS 591-76-4)	STEL	500 ppm	
•	TWA	400 ppm	
3,3-dimethylpentane (CAS 562-49-2)	STEL	500 ppm	
	TWA	400 ppm	
3-ethylpentane (CAS 617-78-7)	STEL	500 ppm	

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Canada. Manitoba OELs (Reg. 217 Components	Type	Value
	TWA	400 ppm
3-methylhexane (CAS 589-34-4)	STEL	500 ppm
,	TWA	400 ppm
acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
.2. 33 3)	TWA	5000 ppm
methanol (CAS 67-56-1)	STEL	250 ppm
,	TWA	200 ppm
methylcyclohexane (CAS 108-87-2)	STEL	500 ppm
. 55 5. 2,	TWA	400 ppm
n-heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
toluene (CAS 108-88-3)	TWA	20 ppm
Canada. Ontario OELs. (Control o		
Components	Туре	Value
2-methylhexane (CAS 591-76-4)	STEL	500 ppm
	TWA	400 ppm
3,3-dimethylpentane (CAS 562-49-2)	STEL	500 ppm
	TWA	400 ppm
3-ethylpentane (CAS 617-78-7)	STEL	500 ppm
•	TWA	400 ppm
3-methylhexane (CAS 589-34-4)	STEL	500 ppm
	TWA	400 ppm
acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
,	TWA	5000 ppm
methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
methylcyclohexane (CAS 108-87-2)	STEL	500 ppm
	TWA	400 ppm
n-heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
toluene (CAS 108-88-3)	TWA	20 ppm
		ting the Quality of the Work Environment)
Components	Туре	Value
acetone (CAS 67-64-1)	STEL	2380 mg/m3
•		1000 ppm
	TWA	1190 mg/m3
		500 ppm
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
,		30000 ppm
	TWA	9000 mg/m3
		5000 ppm
methanol (CAS 67-56-1)	STEL	328 mg/m3
110thanor (0/10 07-30-1)	OILL	250 ppm
	T\0/0	
	TWA	262 mg/m3

Canada. Quebec OELs. (Ministry Components	of Labor - Regulation Respect Type	ting the Quality of the Work Environment) Value
		200 ppm
methylcyclohexane (CAS 108-87-2)	TWA	1610 mg/m3
,		400 ppm
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3
•		400 ppm
n-heptane (CAS 142-82-5)	STEL	2050 mg/m3
		500 ppm
	TWA	1640 mg/m3
		400 ppm
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	TWA	1590 mg/m3
,		400 ppm
toluene (CAS 108-88-3)	TWA	188 mg/m3
		50 ppm

#### **Biological limit values**

Components	Value	Determinant	Specimen	Sampling Time
acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

<sup>\* -</sup> For sampling details, please see the source document.

#### **Exposure guidelines**

Canada - Alberta OELs: Skin designation

methanol (CAS 67-56-1)

toluene (CAS 108-88-3)

Can be absorbed through the skin.

Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

methanol (CAS 67-56-1) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

methanol (CAS 67-56-1) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

methanol (CAS 67-56-1) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

methanol (CAS 67-56-1)

Can be absorbed through the skin. toluene (CAS 108-88-3)

Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

methanol (CAS 67-56-1)

Can be absorbed through the skin.
toluene (CAS 108-88-3)

Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation** 

methanol (CAS 67-56-1) 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. Eye wash facilities and emergency shower should be available when handling this product. Eye wash facilities and emergency shower must be available when handling this product.

#### 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. Neoprene. Polyvinyl alcohol (PVA).

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

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. 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** 

Liquid. **Physical state** Aerosol. **Form** Color Clear. Solvent. Odor **Odor threshold** Not available. pН Not available.

Melting point/freezing point Initial boiling point and boiling

range

-195.9 °F (-126.6 °C) estimated 132.9 °F (56.1 °C) estimated

Flash point 0 °F (-17.8 °C) Tag Closed Cup

Fast. **Evaporation rate** 

Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits Flammability limit - lower 1 % estimated

36 % estimated Flammability limit - upper

(%)

4034.8 hPa estimated Vapor pressure

> 1 (air = 1)Vapor density Relative density 0.84 estimated

Solubility(ies)

Solubility (water) Slightly soluble. Partition coefficient Not available.

(n-octanol/water)

**Auto-ignition temperature** 

539.6 °F (282 °C) estimated

**Decomposition temperature** Not available. **Viscosity** Not available.

Other information

92.9 % estimated Percent volatile

## 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 Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials. Incompatible materials Acids. Alkalies. Reducing agents. Strong oxidizing agents. Hypochlorites. Peroxides. Aluminum.

Magnesium. Sodium. Zinc.

Hazardous decomposition

products

Carbon oxides.

Material name: Brakleen® Non-Chlorinated Brake Parts Cleaner

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# 11. Toxicological information

## Information on likely routes of exposure

Inhalation May cause damage to organs by inhalation. May cause damage to organs through prolonged or

repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea,

vomitina

Skin contact Causes skin irritation.

**Eye contact** Causes serious eye irritation.

Ingestion Toxic if swallowed. Causes damage to organs by 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. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin

irritation. May cause redness and pain. Edema.

## Information on toxicological effects

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

Components	Species	Test Results
3-methylhexane (CAS 589	-34-4)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg
acetone (CAS 67-64-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	20000 mg/kg
Oral		
LD50	Rat	5800 mg/kg
heptane, branched, cyclic a	and linear (CAS 426260-76-6)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 60 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
methylcyclohexane (CAS 1	108-87-2)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
naphtha (petroleum), hydro	otreated light (CAS 64742-49-0)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
n-heptane (CAS 142-82-5)		
<u>Acute</u>		
Dermal	D 11."	0000 #
LD50	Rabbit	3000 mg/kg
•	n), light aliph. (CAS 64742-89-8)	
Acute .		
Dermal	D-I-I-ii	0000
LD50	Rabbit	> 2000 mg/kg

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Components	Species	Test Results
toluene (CAS 108-88-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
LC50	Rat	7585 ppm, 4 hours
Oral		
LD50	Rat	5580 mg/kg

<sup>\*</sup> 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 sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

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**

acetone (CAS 67-64-1)

toluene (CAS 108-88-3)

A4 Not classifiable as a human carcinogen.

A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

acetone (CAS 67-64-1) Not classifiable as a human carcinogen. toluene (CAS 108-88-3) Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific target organ toxicity -

single exposure

Causes damage to organs (central nervous system, eyes) by ingestion. May cause drowsiness

and dizziness.

Specific target organ toxicity -

repeated exposure

May cause damage to organs (central nervous system, kidney, peripheral nervous system)

through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

Chronic effects May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may

be harmful.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
acetone (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
heptane, branched, cyc	clic and linear (CAS	S 426260-76-6)	
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
methanol (CAS 67-56-1	l)		
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
methylcyclohexane (CAS	S 108-87-2)		
Aquatic			
Fish	LC50	Striped bass (Morone saxatilis)	5.8 mg/l, 96 hours
naphtha (petroleum), hyd	drotreated light (0	CAS 64742-49-0)	
Aquatic			
Acute			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-heptane (CAS 142-82-	5)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2.1 - 2.98 mg/l, 96 hours
solvent naphtha (petrole	um), light aliph. (	CAS 64742-89-8)	
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
toluene (CAS 108-88-3)			
Aquatic			
Acute			
	EC50	Water flea (Daphnia magna)	6 mg/l, 48 hours
Crustacea	_000		

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

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

## **Bioaccumulative potential**

Partition	coefficient	n-octanol	/ water (I	oa Kow)
Paruuon	Coemicient	II-OCIAIIOI	water (i	ou Now

acetone	•	-0.24
methanol		-0.77
methylcyclohexane		3.61
n-heptane		4.66
toluene		2.73

**Bioconcentration factor (BCF)** 

naphtha (petroleum), hydrotreated light 10 - 25000 toluene 90

Mobility in soil No data available.

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

potential.

## 13. Disposal considerations

Contents under pressure. Do not puncture, incinerate or crush. Empty container can be recycled. Disposal of waste from Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of residues / unused products

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

Dispose in accordance with all applicable regulations. Local disposal regulations

Hazardous waste code Not regulated.

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

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, flammable, containing substances in Class 6.1, packing group III

Transport hazard class(es)

2.1 Subsidiary risk 6.1(PGIII) Not applicable. Packing group

**Environmental hazards** No.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions

IATA

**UN** number UN1950

**UN proper shipping name** Aerosols, flammable, containing substances in Division 6.1, Packing Group III

Transport hazard class(es)

2.1 Class 6.1(PGIII) Subsidiary risk Not applicable. Packing group

**Environmental hazards** No. **ERG Code** 10P

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

aircraft

Allowed with restrictions.

Not established.

Allowed with restrictions. Cargo aircraft only

**IMDG** 

UN1950 **UN** number **AEROSOLS UN** proper shipping name

Transport hazard class(es)

Class 2.1 Subsidiary risk 6.1(PGIII) Packing group Not applicable.

**Environmental hazards** 

Marine pollutant No.

**EmS** Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

## 15. Regulatory information

## Canadian regulations

Canada. Excluded VOCs. Guidelines for Volatile Organic Compounds in Consumer Products. CEPA 1999. Environment Canada, as amended

acetone (CAS 67-64-1)

**Controlled Drugs and Substances Act** 

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

**Greenhouse Gases** 

carbon dioxide (CAS 124-38-9)

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

acetone (CAS 67-64-1) methanol (CAS 67-56-1) toluene (CAS 108-88-3)

**Precursor Control Regulations** 

acetone (CAS 67-64-1) Class B toluene (CAS 108-88-3) Class B

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)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
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)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

<sup>\*</sup>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).

Toxic Substances Control Act (TSCA) Inventory

## 16. Other information

**Disclaimer** 

**Issue date** 11-23-2016

Version # 01

United States & Puerto Rico

Further information CRC # 483A

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..

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Yes