



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** Brakleen® Non-Chlorinated Brake Parts Cleaner (aerosol)  
50 State Formula

**Product Number (s):** 05050

**Product Use:** Brake Parts Cleaner

### Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://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](http://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](http://www.crc-mexico.com)  
52-444-824-1666

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

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## Section 2: Hazards Identification

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### Emergency Overview

**DANGER:** Extremely Flammable. Vapors May Cause Flash Fires. Harmful if swallowed.  
Eye and Skin Irritant. Contents Under Pressure.  
Appearance & Odor: Clear colorless liquid, solvent odor

### Potential Health Effects:

#### ACUTE EFFECTS:

**EYE:** Eye irritant. Contact may cause moderate to severe eye irritation including stinging, watering and redness.

**SKIN:** Skin irritant. Contact may cause redness, itching, burning, and skin damage. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin, leading to dermatitis (inflammation).

**INHALATION:** Low to moderate degree of toxicity by inhalation. Effects of overexposure may include irritation to the respiratory tract and signs of nervous system depression (headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue).

**INGESTION:** Main hazard is aspiration. This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage. Swallowing this material may also cause nausea and diarrhea. Acetone poisoning may result in liver and kidney damage.

**CHRONIC EFFECTS:** Exposure to high concentrations of this material may increase the sensitivity of the heart to certain drugs. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

**TARGET ORGANS:** Liver, kidney, central nervous system

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Medical Conditions Aggravated by Exposure: Skin disorders, respiratory (asthma-like) disorders

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

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### Section 3: Composition/Information on Ingredients

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COMPONENT	CAS NUMBER	% by Wt.
Heptane isomers	142-82-5 / 64742-49-0	5 - 15
Acetone	67-64-1	80 - 90
Carbon dioxide	124-38-9	8 - 13

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### Section 4: First Aid Measures

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- 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 or give anything by mouth because material can enter the lungs and cause severe lung damage. Seek medical attention immediately.
- Note to Physicians:* Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents. The use of other drugs with less arrhythmogenic potential should be considered.

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### Section 5: Fire-Fighting Measures

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

Flash Point: < 0°F / -18°C (TCC)	Upper Explosive Limit: 12.8
Autoignition Temperature: 869°F / 465°C	Lower Explosive Limit: 2.5

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** Dry chemical, carbon dioxide or foam is recommended.

**Products of Combustion:** Oxides of carbon

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

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

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**Section 6: Accidental Release Measures**

**Personal Precautions:** Use personal protection recommended in Section 8.

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

**Methods for Containment & Clean-up:** Eliminate all potential 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 on or around any potential sources of ignition or live equipment. Wash thoroughly after use and before handling food. 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:** Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Keep away from incompatible material.

**Aerosol Storage Level:** III

**Section 8: Exposure Controls/Personal Protection**

**Exposure Guidelines:**

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Heptane isomers	500	NE	400	500	NE		ppm
Acetone	750 (v)	1000 (v)	500	750	NE		ppm
Carbon dioxide	5000	30000(v)	5000	30000	NE		ppm
N.E. – Not Established      (c) – ceiling      (s) – skin      (v) – vacated							

**Controls and Protection:**

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

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

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

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Skin Protection: Use protective gloves such as nitrile, PVA or Viton®. 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: clear, colorless  
 Odor: solvent  
 Odor Threshold: ND  
 Specific Gravity: 0.780  
 Initial Boiling Point: 132°F / 56°C  
 Freezing Point: < -100°F / -73°C  
 Vapor Pressure: ND  
 Vapor Density: 2 (air = 1)  
 Evaporation Rate: fast  
 Solubility: slightly soluble in water  
 Coefficient of water/oil distribution: ND  
 pH: NA  
 Volatile Organic Compounds: wt %: 9.0      g/L: 70.2      lbs./gal: 0.59

**Section 10: Stability and Reactivity**

Stability: Stable  
 Conditions to Avoid: Sources of ignition, temperature extremes  
 Incompatible Materials: Avoid contact with acids and oxidizers such as chlorine and other halogens, chromates, perchlorates, peroxides and oxygen.  
 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>
Heptane isomers	> 15000 mg/kg	> 2000 mg/kg	103 g/m <sup>3</sup> /4H
Acetone	5800 mg/kg	> 15,800 mg/kg	30,000 ppm/4H
Carbon dioxide	No data	No data	470,000 ppm/30M

**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Heptane isomers	No	No	No	Skin	No
Acetone	No	No	No	Eye	No
Carbon dioxide	No	No	No	No	No

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<u>Reproductive Toxicity:</u>	No information available
<u>Teratogenicity:</u>	No information available
<u>Mutagenicity:</u>	No information available
<u>Synergistic Effects:</u>	No information available

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## **Section 12: Ecological Information**

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

Ecotoxicity:	n-heptane - 24 Hr EC50 Daphnia magna: >10 mg/L acetone - 48 Hr EC50 Daphnia magna: 12600 mg/L
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

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## **Section 13: Disposal Considerations**

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**Waste Classification:** The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with the following potential waste codes: D001, F003. (See 40 CFR Part 261.20 – 261.33)  
Empty aerosol containers may be recycled. Any liquid product should be managed as a hazardous waste.

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

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## **Section 14: Transport Information**

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

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

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

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

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## **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: Acetone (5000 lbs)

**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

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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

Occupational Safety and Health Administration (OSHA):

This product is regulated under the Hazard Communication Standard.

U.S. State Regulations:

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

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: toluene (< 0.005%)

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

State Right to Know:

New Jersey: 142-82-5, 67-64-1, 124-38-9

Pennsylvania: 142-82-5, 67-64-1, 124-38-9

Massachusetts: 142-82-5, 67-64-1, 124-38-9

Rhode Island: 142-82-5, 67-64-1, 124-38-9

Canadian Regulations:

Controlled Products Regulations:

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

WHMIS Hazard Class: A, B5, D2B

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

European Union Regulations:

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

Additional Regulatory Information: None

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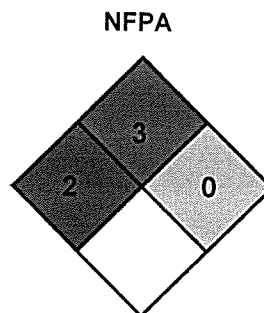
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**Section 16: Other Information**

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HMIS® (II)	
Health:	2
Flammability:	3
Reactivity:	0
PPE:	B



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

Prepared By: Michelle Rudnick  
CRC #: 920B  
Revision Date: 04/19/2012

Changes since last revision: Section 2: Emergency Overview  
Section 14: Transport Information

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

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