



SAFETY DATA SHEET

1. Identification

Product identifier	Brakleen® Non-Chlorinated Brake Parts Cleaner - 50 State Formula	
Other means of identification		
Product code	05051	
Recommended use	Brake parts cleaner	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufactured or sold by:		
Company name	CRC Industries, Inc.	
Address	885 Louis Dr. Warminster, PA 18974 US	
Telephone		
General Information	215-674-4300	
Technical Assistance	800-521-3168	
Customer Service	800-272-4620	
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)	
Website	www.crcindustries.com	

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. 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 gas. Avoid breathing mist or vapor. Wear protective gloves/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. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 attention. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire.

Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Do not store container above 100°F/38°C. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
acetone		67-64-1	90 - 100
heptane, branched, cyclic and linear		426260-76-6	1 - 3
naphtha (petroleum), hydrotreated light		64742-49-0	1 - 3
solvent naphtha (petroleum), light aliph.		64742-89-8	1 - 3
2-methylhexane		591-76-4	< 1
3-methylhexane		589-34-4	< 1
n-heptane		142-82-5	< 1
3-ethylpentane		617-78-7	< 0.2

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

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	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
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. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause drowsiness or dizziness.
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.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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 and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
General fire hazards	Highly flammable liquid and vapor.

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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

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.

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

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Use care in handling/storage. Avoid release to the environment. Do not empty into drains. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
n-heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2-methylhexane (CAS 591-76-4)	STEL	500 ppm
3-ethylpentane (CAS 617-78-7)	TWA	400 ppm
	STEL	500 ppm
	TWA	400 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
3-methylhexane (CAS 589-34-4)	STEL	500 ppm
	TWA	400 ppm
acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
n-heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
n-heptane (CAS 142-82-5)	Ceiling	1800 mg/m ³ 440 ppm
	TWA	350 mg/m ³ 85 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. 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 eyewash station.

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. Polyvinyl alcohol (PVA). Viton®.

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

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or 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.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Clear. Colorless.
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-195.9 °F (-126.6 °C) estimated
Initial boiling point and boiling range	132.9 °F (56.1 °C) estimated
Flash point	< 32 °F (< 0 °C) Tag Closed Cup
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	1.1 % estimated
Flammability limit - upper (%)	12.8 % estimated
Vapor pressure	223.1 hPa estimated
Vapor density	> 2 (air = 1)
Relative density	0.78
Solubility (water)	Slight.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	539.6 °F (282 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	100 % 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, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Acids. Alkalies. Aluminum. Halogens. Peroxides. Oxygen. Amines. Ammonia.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Skin contact	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of nose and throat. Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects.

Product	Species	Test Results
Brakleen® Non-Chlorinated Brake Parts Cleaner - 50 State Formula		
Acute		
Dermal		
LD50	Rabbit	10524 mg/kg estimated
Inhalation		
LC50	Rat	74 mg/l, 4 Hours estimated
Oral		
LD50	Rat	5703 mg/kg estimated

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

Skin corrosion/irritation	Prolonged skin contact may cause temporary 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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

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
n-heptane (CAS 142-82-5)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.1 - 2.98 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 No data available.

Partition coefficient n-octanol / water (log Kow)

acetone	-0.24
n-heptane	4.66

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 of waste from residues / unused products If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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 D001: Waste Flammable material with a flash point <140 F

US RCRA Hazardous Waste U List: Reference

acetone (CAS 67-64-1)	U002
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Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (acetone RQ = 5556 LBS, heptanes)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

acetone (CAS 67-64-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

acetone (CAS 67-64-1) 6532

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

acetone (CAS 67-64-1) Low priority

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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 No

US state regulations

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

acetone (CAS 67-64-1)

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

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

acetone (CAS 67-64-1)

US. Massachusetts RTK - Substance List

acetone (CAS 67-64-1)

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

acetone (CAS 67-64-1)

US. Rhode Island RTK

acetone (CAS 67-64-1)

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) Listed: February 27, 1987

cumene (CAS 98-82-8) Listed: April 6, 2010

ethanal (CAS 75-07-0) Listed: April 1, 1988

ethylbenzene (CAS 100-41-4) Listed: June 11, 2004

naphthalene (CAS 91-20-3) 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 51.100(s)) 10 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

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

VOC content (CA) 10 %

VOC content (OTC) 10 %

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
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 date	05-13-2014
Revision date	06-23-2016
Prepared by	Allison Cho
Version #	03
Further information	CRC # 920B
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 2 Flammability: 3 Instability: 0

NFPA ratings



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 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 (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.

Revision Information

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