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SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

491G

Product Name:	**Brakleen Brake Parts Cleaner (Aerosol)**
Manufacturer MSDS.:	491G
Manufacturer Name:	CRC Industries, Inc.
Address:	885 Louis Drive Warminster, PA 18974 Technical Assistance: (800) 521-3168 www.crcindustries.com
Business Phone:	General Information: (215) 674-4300
CHEMTREC Numbers:	
For emergencies in the US, call CHEMTREC: 800-424-9300	
Customer Service Phone:	(800) 272-8963
Revision Date:	12/18/2006
Trade Names:	Brakleen® Brake Parts Cleaner (aerosol)
Product Codes:	05089, 05089-6, 05089T, 85089, 85089AZ

NFPA

HMIS

HEALTH	**2**
FIRE	**0**
REACTIVITY	**0**
PPE	**B**

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SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS

491G

Ingredient Name	CAS#	Ingredient Percent
Tetrachloroethylene (PERC) EC Index Number: 1	127-18-4	> 95% by Weight
Carbon Dioxide EC Index Number: 1	124-38-9	< 5% by Weight

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SECTION 3 : HAZARDS IDENTIFICATION

491G

Emergency Overview:	DANGER Vapor Harmful. Contents Under Pressure.
Physical State:	Liquid
Color:	Colorless
Odor:	Irritating odor at high concentrations
	As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Applies to All Ingredients:

Potential Health Effects:

Eye Contact:	May cause slight temporary eye irritation. Vapors may irritate the eyes at concentrations of 100 ppm.
Skin Contact:	Short single exposure may cause skin irritation. Prolonged exposure may cause severe skin irritation, even a burn. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
Inhalation:	Dizziness may occur at concentrations of 200 ppm. Progressively higher levelsmay also cause nasal irritation, nausea, incoordination, and drunkenness. Veryhigh levels or prolonged exposure could lead to unconsciousness and death.
Ingestion:	Single dose oral toxicity is considered to be extremely low. Swallowing largeamounts may cause injury if aspirated into the lungs. This may be rapidlyabsorbed through the lungs and result in injury to other body systems.
Chronic Health Effects:	Repeated contact with skin may cause drying or flaking of skin. Excessive or longterm exposure to vapors may increase sensitivity to epinephrine and increasemyocardial irritability.
Target Organs:	Central nervous system. Possibly liver and kidney.
	See Section 11 for toxicology and carcinogenicity information on product ingredients.

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SECTION 4 : FIRST AID MEASURES

491G

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 physicianif irritation persists. Wash contaminated clothing prior to re-use.
Inhalation:	Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. Ifbreathing is difficult give oxygen. Call a physician.
Ingestion:	Do NOT induce vomiting. Call a physician immediately.
Note to Physicians:	Because rapid absorption may occur through lungs if aspirated and cause systemic effects,the decision of whether to induce vomiting or not should be made by a physician. If lavage isperformed, suggest endotracheal and/or esophageal control. If burn is present, treat as anythermal burn, after decontamination. Exposure may increase myocardial irritability. Do notadminister sympathomimetic drugs unless absolutely necessary.
Antidote:	No specific antidote.

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SECTION 5 : FIRE FIGHTING MEASURES

491G

Fire:	Flammable Properties: This product is nonflammable.
Flash Point:	None
Flash Point Method:	(TCC)
Upper Flammable or Explosive Limit:	None
Lower Flammable or Explosive Limit:	None
Auto Ignition Temperature:	None
Extinguishing Media:	This material does not burn. Use extinguishing agent suitable for surrounding fire.
Hazardous Combustion Byproducts:	Hydrogen chloride. Trace amounts of phosgene, and chlorine.
Fire Fighting Instructions:	Firefighters should wear self-contained, NIOSH-approved breathing apparatus forprotection against suffocation and possible toxic decomposition products. Proper eyeand skin protection should be provided. Use water spray to keep fire-exposedcontainers cool and to knock down vapors which may result from productdecomposition.

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SECTION 6 : ACCIDENTAL RELEASE MEASURES

491G

Personal Precautions:	Use personal protection recommended in Section 8. Do not breathe vapors.
Spill Cleanup Measures:	Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confinedspace or limited air circulation area, clean-up workers should wearappropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.
Environmental Precautions:	Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

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SECTION 7 : HANDLING and STORAGE

491G

Handling:	Vapors of this product are heavier than air and will collect in low areas. Make sureventilation removes vapors from low areas. Do not eat, drink or smoke while using thisproduct.
Storage:	Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 deg Fto prevent cans from rupturing. Aerosol Storage Level: I

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SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

491G

Engineering Controls:	Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulationof vapors. Provide proper exhaust to remove vapors from low areas. Use mechanicalmeans if necessary to maintain vapor levels below the exposure guidelines. If working in aconfined space, follow applicable OSHA regulations
Skin Protection Description:	Use protective gloves such as PVA, Teflon or Viton. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.
Eye/Face Protection:	For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.
Respiratory Protection:	None required for normal work where adequate ventilation is provided. Use NIOSH-approved self-contained positive pressure respirators in low circulation areas and for emergencies.
Exposure Limits:	COMPONENT: Tetrachloroethylene OTHER TWA: Not Established COMPONENT: Carbon dioxide OTHER TWA: Not Established
Comments:	N.E. - Not Established (c) - Ceiling (s) - Skin (v) - Vacated

Ingredient Guidelines

Ingredient: Carbon Dioxide

Guideline Type:	OSHA PEL-TWA
Guideline Information:	5000 ppm
Guideline Type:	OSHA Vacated PELs
Guideline Information:	STEL: 30000 ppm
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	5000 ppm
Guideline Type:	ACGIH TLV-STEL
Guideline Information:	30,000 ppm

Ingredient: Tetrachloroethylene (PERC)

Guideline Type:	OSHA PEL-TWA
Guideline Information:	100 ppm
Guideline Type:	OSHA PEL-STEL
Guideline Information:	Not Established
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	25 ppm
Guideline Type:	ACGIH TLV-STEL
Guideline Information:	100 ppm

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SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

491G

Color:	Colorless
Odor:	Irritating odor
Physical State:	Liquid
pH:	Not Applicable
Vapor Pressure:	13 mmHg @ 68 deg F
Vapor Density:	(Air = 1): 5.76
Boiling Point:	Initial: 250 deg F
Freezing Point:	Not Determined
Solubility:	0.015 g/100 g @ 77 deg F in water
Specific Gravity:	1.619
Evaporation Point:	(Ether = 1): > 1
Volatile Organic Compound Content:	wt %: 0 g/L: 0 lbs./gal: 0

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SECTION 10 : STABILITY and REACTIVITY

491G

Chemical Stability:	Stable
Conditions to Avoid:	Avoid direct sunlight or ultraviolet sources. Avoid open flames, welding arcs, and other high temperature sources which induce thermal decomposition.
Incompatibilities with Other Materials:	Avoid contact with metals such as: Aluminum powders, magnesium powders, potassium, sodium, and zinc powder. Avoid unintended contact with amines. Avoid contact with strong bases and strong oxidizers.
Reactivity:	Possibility of Hazardous Reactions: No
Hazardous Decomposition Products:	Hydrogen chloride, trace amounts of chlorine and phosgene

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SECTION 11 : TOXICOLOGICAL INFORMATION

491G

Applies to all ingredients:

Acute Health Effects:	The following information isavailable for components of this product.
Chronic Effects:	Long-term toxicological studies have not been conducted for this product.
Other Toxicological Information:	Other: None

Tetrachloroethylene (PERC) :

Skin Effects:	ACUTE EFFECTS: LD50 dermal rabbit: > 10 g/kg
Ingestion Effects:	ACUTE EFFECTS: LD50 oral rat: 2629 mg/kg
Inhalation Effects:	ACUTE EFFECTS: LC50 inhalation mouse: 5200 mg/kg/4H
Carcinogenicity:	OSHA: Hazard communication carcinogen IARC: 2A (Probably carcinogenic) NTP: Reasonably anticipated to be a carcinogen
Mutagenicity:	In vitro studies were negative Animal studies were negative

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SECTION 12 : ECOLOGICAL INFORMATION

491G

Ecotoxicity:	Component: Tetrachloroethylene 96 Hr LC50 Rainbow Trout: 5.28 mg/L (static) 96 Hr LC50 Fathead minnow: 13.4 mg/L (flow-through)

Persistence/Degradability:	Biodegradation under aerobic conditions is below detectable limits. Biodegradation may occur under anaerobic conditions. Biodegradation rate may increase in soil and/or water with acclimation. Bioaccumulation/Accumulation: Bioconcentration potential is low (BCF less than 100). Mobility in Environment: Potential for mobility in soil is medium.

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SECTION 13 : DISPOSAL CONSIDERATIONS

491G

Waste Disposal:	Aerosol containers should be emptied and depressurized before disposal. Empty containers may berecycled. Any liquid product should be managed as a hazardous waste. All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.
RCRA Hazard Class:	The dispensed liquid product is a RCRA hazardous waste for toxicity with the following potential waste codes: U210, F001, F002, D039. (See 40 CFR Part 261.20 - 261.33)

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SECTION 14 : TRANSPORT INFORMATION

491G

DOT Shipping Name:	US DOT (ground): Consumer Commodity, ORM-D
Special Shipping Information:	Special Provisions: None

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SECTION 15 : REGULATORY INFORMATION

491G

Applies to All Ingredients :

TSCA 8(b): Inventory Status:	All ingredients are either listed on the TSCA inventory or are exempt.
SARA:	Superfund Amendments Reauthorization Act (SARA) Title III:
Section 302:	Section 302 Extremely Hazardous Substances (EHS): None
Section 312 Hazard Category:	Section 311/312 Hazard Categories:
Acute:	Yes
Chronic:	Yes
Fire:	No
Reactive:	No
Pressure:	Yes
OSHA 29 CFR 1200:	As defined by OSHA's Hazard Communication Standard, this product is hazardous.
State:	Additional Regulatory Information: Not for Use in California.

Tetrachloroethylene (PERC) :

Section 304:	Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Reportable Quantities (RQ's) exist for the following ingredients: Tetrachloroethylene (100 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.

Section 313 Toxic Release Form:	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: Chemical Name: Tetrachloroethylene %: 97.7%
Section 112(r): Clean Air Act	Section 112 Hazardous Air Pollutants (HAPs): Tetrachloroethylene
State:	State Right to Know: New Jersey: Tetrachloroethylene Pennsylvania: Tetrachloroethylene Massachusetts: Tetrachloroethylene Rhode Island: Tetrachloroethylene

Carbon Dioxide :

State:	State Right to Know: New Jersey: Carbon dioxide Pennsylvania: Carbon dioxide Massachusetts: Carbon dioxide Rhode Island: Carbon dioxide

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SECTION 16 : ADDITIONAL INFORMATION 491G

HMIS:	
Health Hazard:	2
Fire Hazard:	0
Reactivity:	0
Personal Protection:	B
NFPA:	
Health:	2
Fire Hazard:	0
Reactivity:	0
MSDS Revision Date:	12/18/2006
	Changes since last revision: Part number added
MSDS Author:	Prepared By: Michelle Rudnick

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.

Abbreviations:	CAS: Chemical Abstract Service ppm: Parts per Million TCC: Tag Closed Cup PMCC: Pensky-Martens Closed Cup PPE: Personal Protection Equipment TWA: Time Weighted Average OSHA: Occupational Safety and Health Administration ACGIH: American Association of Governmental Industrial Hygienists NIOSH: National Institute of Occupational Safety & Health NA: Not Applicable ND: Not Determined NE: Not Established g/L: grams per Liter lbs./gal: pounds per gallon STEL: Short Term Exposure Limit
	CRC ##: 491G

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