

# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** Barnes Brake Parts Cleaner (aerosol)

**Product Number (s):** KP69970

**Product Use:** Brake Parts Cleaner

**Manufactured For:**

Barnes Distribution  
The Galleria/Tower at Erieview  
1301 East 9<sup>th</sup> Street, Ste #700  
Cleveland, OH 44114

General Information

(866) 438-6767

M-F 8AM – 5PM

24-Hr Emergency

(303) 739-1178

(Contact Dennis Lemon)

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## Section 2: Hazards Identification

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### Emergency Overview

**WARNING:** Vapor Harmful. Irritates Eyes, Skin and Respiratory Tract. Contents Under Pressure. As defined by OSHA's Hazard Communication Standard, this product is hazardous.  
Appearance & Odor: Colorless liquid, irritation odor at high concentrations.

### Potential Health Effects:

**ACUTE EFFECTS:**

**EYE:** Liquid contact will produce mild eye irritation. Vapors may also cause irritation. Corneal injury is unlikely.

**SKIN:** Prolonged or repeated exposure can cause skin irritation, drying, flaking, defatting and possibly dermatitis or skin burns. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

**INHALATION:** Exposure to vapors may cause respiratory tract irritation. High concentrations may cause central nervous system depression. Symptoms include dizziness and loss of coordination and could lead to unconsciousness or death. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability.

**INGESTION:** Single dose toxicity is low. Swallowing an excessive amount can cause gastrointestinal disturbances and central nervous system depression. If aspirated into lungs, during swallowing or vomiting, liquid may be rapidly absorbed through the lungs and result in injury to other body systems.

**CHRONIC EFFECTS:** Chronic immersion of skin in this liquid may lead to absorption through skin. This may cause numbness in the immersed area. Excessive inhalation of vapors may increase sensitivity to epinephrine and increase myocardial irritability.

**TARGET ORGANS:** central nervous system; liver, kidney effects seen in laboratory animals

**Medical Conditions Aggravated by Exposure:** pre-existing skin conditions, respiratory conditions

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.
Tetrachloroethylene (PERC)	127-18-4	50 - 60
Trichloroethylene (TCE)	79-01-6	40 - 50
1,2-Butylene Oxide	106-88-7	< 0.5
Carbon dioxide	124-38-9	< 5

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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. Contact physician or poison control center.

**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 is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** This product is nonflammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6) ) However, it can be made to burn under certain conditions.

Flash Point: None (TCC)                      Upper Explosive Limit: 44.8%  
Autoignition Temperature: ND                      Lower Explosive Limit: 8.0%

#### **Fire and Explosion Data:**

**Suitable Extinguishing Media:** Use media suitable for surrounding fire.

**Products of Combustion:** Hydrogen chloride, trace amounts of phosgene, chlorine, and carbon monoxide.

**Explosion Hazards:** Aerosol containers, when exposed to heat from fire, may build pressure and explode.

**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.

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### Section 6: Accidental Release Measures

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**Personal Precautions:** Use personal protection recommended in Section 8. Do NOT breathe vapors.

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

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sewers or storm drains.

Methods for Containment & Clean-up: 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.

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## Section 7: Handling and Storage

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Handling Procedures: Prevent skin and eye contact. Wash hands after use and before contacting food. Avoid breathing vapors. Vapors are heavier than air and will collect in low areas or confined spaces. Make sure ventilation removes vapors from low areas. 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: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: I

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## Section 8: Exposure Controls/Personal Protection

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### Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Tetrachloroethylene	100	NE	25	100	NE		ppm
Trichloroethylene	100	200 (v)	10	25	5	mfr	ppm
1,2-Butylene oxide	N.E.	N.E.	N.E.	N.E.	2	AIHA	ppm
Carbon dioxide	5000	30000 v	5000	30,000	NE		ppm

N.E. – Not Established

(c) – ceiling

(s) – skin

(v) – vacated

mfr – manufacturer's recommendation

### 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 cartridges. 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.

Skin Protection: Use protective gloves such as PVA or Viton. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

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## Section 9: Physical and Chemical Properties

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Physical State: liquid

Color: colorless

Odor: solvent odor

Odor Threshold: ND

Specific Gravity: 1.544

Initial Boiling Point: 189°F

Freezing Point: ND

Vapor Pressure: > 12 mmHg @ 68°F

Vapor Density: > 4 (air = 1)

Evaporation Rate: very fast

Solubility: slight

Coefficient of water/oil distribution: ND

pH: NA

Volatile Organic Compounds: wt %: 43.9                      g/L: 677.8                      lbs./gal: 5.65

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## Section 10: Stability and Reactivity

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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.

Incompatible 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.

Hazardous Decomposition Products: Hydrogen chloride, trace amounts of chlorine and phosgene

Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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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>
Tetrachloroethylene	2629 mg/kg	> 10 g/kg	5200 mg/kg/4H
Trichloroethylene	4920 mg/kg	10,000 mg/kg	12,500 ppm/4H
1,2-Butylene oxide	500 mg/kg	2100 µL/kg	6300 mg/m <sup>3</sup> /4H
Carbon dioxide	No data	No data	470,000 ppm/30M

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**Chronic Toxicity:**

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u>	<u>Sensitizer</u>
Tetrachloroethylene	No	Group 2A	Anticipated Carcinogen	E (mild) / S (severe)	No
Trichloroethylene	No	Group 2A	Anticipated Carcinogen	E (moderate) / S (mild)	Unknown
1,2-Butylene oxide	No	Group 2B	No	E (mild) / S (mild) / R (mild)	Unknown
Carbon dioxide	No	No	No	None	No

E – Eye	S – Skin	R - Respiratory
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Reproductive Toxicity: No information available

Teratogenicity: No information available

Mutagenicity: Tetrachloroethylene in vitro studies were negative  
animal studies were negative  
Trichloroethylene in vitro mutagenicity studies were negative  
animal mutagenicity studies were predominantly negative

Synergistic Effects: 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: trichloroethylene -- 96 Hr LC50 fathead minnow: 44.1 mg/L (flow-through)  
tetrachloroethylene -- 96 Hr LC50 fathead minnow: 13.4 mg/L (flow-through)

Persistence / Degradability: Biodegradation may occur under both aerobic and anaerobic conditions.

Bioaccumulation / Accumulation: Bioconcentration potential is low (BCF less than 100).

Mobility in Environment: Potential for mobility in soil is high.

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**Section 13: Disposal Considerations**

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Waste Classification: The dispensed liquid product is a RCRA hazardous waste for toxicity with the following potential waste codes: F001, F002, D039, D040. Pressurized containers are a D003 reactive waste. (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): Consumer Commodity, ORM-D

ICAO/IATA (air): Consumer Commodity, ID8000, 9

IMO/IMDG (water): Aerosols, UN1950, 2.2, Limited Quantity

Special Provisions: Marine Pollutant

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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: tetrachloroethylene (100 lbs)  
trichloroethylene (100 lbs)  
1,2-butylene oxide (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.**

#### Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:

Fire Hazard	No
Reactive Hazard	No
Release of Pressure	Yes
Acute Health Hazard	Yes
Chronic Health Hazard	Yes

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:  
trichloroethylene (< 44%), tetrachloroethylene (< 54%), 1,2-butylene oxide (0.2%)

#### Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): trichloroethylene, tetrachloroethylene, 1,2-butylene oxide

### **U.S. State Regulations:**

Consumer Products VOC Regulations: This product cannot be sold for use in California and New Jersey. In other states with Consumer Products VOC Regulations, this product is compliant as a Brake Cleaner.

#### State Right to Know:

New Jersey: 79-01-6, 127-18-4, 124-38-9, 106-88-7  
Pennsylvania: 79-01-6, 127-18-4, 124-38-9, 106-88-7  
Massachusetts: 79-01-6, 127-18-4, 124-38-9, 106-88-7  
Rhode Island: 79-01-6, 127-18-4, 124-38-9, 106-88-7

### **Canadian Regulations:**

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

WHMIS Hazard Class: A, D2B

### **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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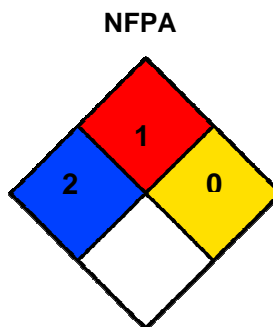
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## Section 16: Other Information

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HMIS® (II)	
Health:	2
Flammability:	1
Reactivity:	0
PPE:	B



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

Revision Date: 01/30/2009

Changes since last revision: New Product

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 our knowledge or obtained from sources believed to be accurate. Before using any product, read all warnings and directions on the label.

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Service

CFR: Code of Federal Regulations

DOT: Department of Transportation

DSL: Domestic Substance List

g/L: grams per Liter

HMIS: Hazardous Materials Identification System

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization

lbs./gal: pounds per gallon

LC: Lethal Concentration

LD: Lethal Dose

NA: Not Applicable

ND: Not Determined

NIOSH: National Institute of Occupational Safety & Health

NFPA: National Fire Protection Association

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PMCC: Pensky-Martens Closed Cup

PPE: Personal Protection Equipment

ppm: Parts per Million

RoHS: Restriction of Hazardous Substances

STEL: Short Term Exposure Limit

TCC: Tag Closed Cup

TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Information System

CTRL#: 09534/00782