



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Brakleen® Brake Parts Cleaner

**Other means of identification**

**Product code** 05091, 05093

**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** Not classified.

**Health hazards** Skin corrosion/irritation Category 2  
Carcinogenicity Category 1B  
Specific target organ toxicity, single exposure Category 3 narcotic effects

**Environmental hazards** Hazardous to the aquatic environment, long-term hazard Category 2

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Causes skin irritation. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use with adequate ventilation. 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 mist or vapor. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

**Response** If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical attention. Collect spillage.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

**Hazard(s) not otherwise classified (HNOC)** None known.

## Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

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### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Tetrachloroethylene	Perchloroethylene	127-18-4	90 - 100

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

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### 4. First-aid measures

<b>Inhalation</b>	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.
<b>Skin contact</b>	Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting.
<b>Most important symptoms/effects, acute and delayed</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.  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. If burn is present, treat as any thermal burn, after decontamination. Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote.
<b>General information</b>	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.

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### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Containers should be cooled with water to prevent vapor pressure build up.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

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### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	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. 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.  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. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 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. 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. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

**Conditions for safe storage, including any incompatibilities** Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Tetrachloroethylene (CAS 127-18-4)	Ceiling	200 ppm
	TWA	100 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

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

### Exposure guidelines

#### US - Minnesota Haz Subs: Skin designation applies

Tetrachloroethylene (CAS 127-18-4) Skin designation applies.

**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 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: Viton®. Polyvinyl alcohol (PVA). Ethyl vinyl alcohol laminate (EVAL).

**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** 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.

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## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Irritating.
<b>Odor threshold</b>	50 ppm
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-8.1 °F (-22.3 °C) estimated
<b>Initial boiling point and boiling range</b>	250.3 °F (121.3 °C) estimated
<b>Flash point</b>	None (Tag Closed Cup)
<b>Evaporation rate</b>	Very fast.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	13 mm Hg (68 °F (20 °C))
<b>Vapor density</b>	5.76 (air = 1)
<b>Relative density</b>	1.62
<b>Solubility (water)</b>	0.02 % (77 °F (25 °C))
<b>Partition coefficient (n-octanol/water)</b>	2.9
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity (kinematic)</b>	Not available.
<b>Percent volatile</b>	100 % estimated

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## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials. Welding. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
<b>Incompatible materials</b>	Strong oxidizing agents. Metals. Powdered metal. Amines. Strong bases.
<b>Hazardous decomposition products</b>	Hydrogen chloride. Trace amounts of chlorine and phosgene.

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## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Single dose oral toxicity is considered to be extremely low. Swallowing large amounts may cause injury if aspirated into the lungs. This may be rapidly absorbed through the lungs and result in injury to other body systems.
<b>Inhalation</b>	Headache. Nausea, vomiting. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful. May cause damage to organs by inhalation.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**

Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Information on toxicological effects**

**Acute toxicity** Narcotic effects.

Product	Species	Test Results
Brakleen® Brake Parts Cleaner		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	3228 mg/kg estimated
<i>Inhalation</i>		
LC50	Rat	> 20 mg/l, 4 hours
<i>Oral</i>		
LD50	Rat	2629 mg/kg estimated

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

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory sensitization** Not available.

**Skin sensitization** Based on available data, the classification criteria are not met. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** May cause cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Tetrachloroethylene (CAS 127-18-4) 2A Probably carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Tetrachloroethylene (CAS 127-18-4) Reasonably Anticipated to be a Human Carcinogen.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Narcotic effects. May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be an aspiration hazard. Swallowing large amounts may cause injury if aspirated into the lungs. This may be rapidly absorbed through the lungs and result in injury to other body systems.

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

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## 12. Ecological information

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

Product	Species	Test Results
Brakleen® Brake Parts Cleaner		
<b>Aquatic</b>		
Fish	LC50	Fish 18.7329 mg/l, 96 hours estimated
<b>Components</b>		
Tetrachloroethylene (CAS 127-18-4)		
<b>Aquatic</b>		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 4.73 - 5.27 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** Not available.

<b>Partition coefficient n-octanol / water (log Kow)</b>	
Brakleen® Brake Parts Cleaner	2.88
Tetrachloroethylene	2.88

**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** This material and its container must be disposed of as hazardous waste. Consult authorities before disposal. 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**  
D039: Waste Tetrachloroethylene  
F001: Waste Tetrachloroethylene - Spent halogenated solvent used in degreasing  
F002: Waste Tetrachloroethylene - Spent halogenated solvent

**US RCRA Hazardous Waste U List: Reference**

Tetrachloroethylene (CAS 127-18-4) U210

**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** UN1897  
**UN proper shipping name** Tetrachloroethylene ( RQ = 100 lbs), MARINE POLLUTANT  
**Transport hazard class(es)**  
**Class** 6.1(PGIII)  
**Subsidiary risk** -  
**Label(s)** 6.1  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Special provisions** IB3, N36, T4, TP1  
**Packaging exceptions** 153  
**Packaging non bulk** 203  
**Packaging bulk** 241

**IATA**

**UN number** UN1897  
**UN proper shipping name** Tetrachloroethylene  
**Transport hazard class(es)**  
**Class** 6.1(PGIII)  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes  
**ERG Code** 6L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Other information**  
**Passenger and cargo aircraft** Allowed.  
**Cargo aircraft only** Allowed.

**IMDG**

**UN number** UN1897  
**UN proper shipping name** TETRACHLOROETHYLENE, MARINE POLLUTANT  
**Transport hazard class(es)**  
**Class** 6.1(PGIII)  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes

<b>EmS</b>	F-A, S-A
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>General information</b>	DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

### **SARA 304 Emergency release notification**

Not regulated.

### **US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

### **US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Tetrachloroethylene (CAS 127-18-4)

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Tetrachloroethylene (CAS 127-18-4)

### **CERCLA Hazardous Substances: Reportable quantity**

Tetrachloroethylene (CAS 127-18-4) 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.

### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Tetrachloroethylene (CAS 127-18-4)

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

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**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 - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

### **US state regulations**

#### **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**

Tetrachloroethylene (CAS 127-18-4)

#### **US. Massachusetts RTK - Substance List**

Tetrachloroethylene (CAS 127-18-4)

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

Tetrachloroethylene (CAS 127-18-4)

#### **US. Rhode Island RTK**

Tetrachloroethylene (CAS 127-18-4)

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

#### **US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Tetrachloroethylene (CAS 127-18-4) Listed: April 1, 1988

## Volatile organic compounds (VOC) regulations

### EPA

**VOC content (40 CFR 51.100(s))** 0 %

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

### State

**Consumer products** This product is regulated as a Brake Cleaner. This product is not compliant to be sold for use in California and New Jersey. This product is compliant in all other states.

**VOC content (CA)** 0 %

**VOC content (OTC)** 0 %

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
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).

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## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	02-17-2014
<b>Revision date</b>	09-17-2014
<b>Prepared by</b>	Allison Cho
<b>Version #</b>	02
<b>Further information</b>	CRC # 491G
<b>HMIS® ratings</b>	Health: 2* Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 2 Flammability: 0 Instability: 0

### NFPA ratings



### Disclaimer

CRC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.