



Material Safety Data Sheet

Revision Date 18-Dec-2008

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product code 80925
Product name Brake Klean
Recommended Use Cleaner
Supplier Lawson Products, Inc.
1666 East Touhy Avenue
Des Plaines, IL 60018
(847)-827-9666

Emergency telephone number (888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview

Irritant.

Color Clear

Odor Solvent

Form Liquid

Aggravated Medical Conditions Cardiac sensitization to circulating epinephrine-like compounds can result in sudden, fatal cardiac arrhythmias.

Principal Routes of Exposure Eyes. Skin. Inhalation. Ingestion.

Potential health effects

Eyes Contact with eyes may cause irritation.

Skin Will cause the following effects: Redness. Defatting.

Inhalation May cause the following effects. Dizziness. Narcosis. Long-term exposure may cause the following effects: Breathing difficulty. Lung damage. Liver damage. Kidney damage. Central nervous system effects.

Ingestion May cause the following effects. Vomiting.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
1,1,1-Trichloroethane	71-55-6	45-50
Tetrachloroethylene	127-18-4	45-50
Carbon Dioxide	124-38-9	1-5

4. FIRST AID MEASURES

Eye contact	Wash off with plenty of water. Seek medical attention if irritation persists.
Skin contact	Wash area thoroughly with soap and water. Seek medical attention if irritation persists.
Ingestion	Do not induce vomiting. In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision.
Inhalation	Remove from exposure. Provide oxygen if breathing is difficult.

5. FIRE FIGHTING MEASURES

Flash point °C	5536
Flash point °F	9998
Method	No information available

Autoignition temperature °C	No data available
Autoignition temperature °F	No data available

Flammability Limits (% in Air)

Upper	No data available
Lower	No data available

Suitable extinguishing media

Carbon dioxide (CO2). Dry chemical. Water fog.

Special protective equipment for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Sensitivity to shock

No information available.

Sensitivity to static discharge

No information available.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up

Collect leaking liquid in sealable containers. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder) . Contact fire authorities and appropriate state/local agencies.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice. Smoke in **SMOKING AREAS ONLY**.

Storage

Keep tightly closed in a dry and cool place. Keep away from open flames, hot surfaces and sources of ignition. Store in temperatures below 120 degrees F. Follow all label directions. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Tetrachloroethylene	100 ppm	200 ppm	25 ppm	100 ppm
1,1,1-Trichloroethane	1900 mg/m ³ 350 ppm	-	350 ppm	450 ppm
Carbon Dioxide	5000 ppm 9000 mg/m ³	-	5000 ppm	30000 ppm

Ventilation and Environmental Controls

Adequate ventilation should be provided to keep exposure levels below current acceptable exposure limits.

Hygiene measures

Wash hands before eating or using the washroom.

Personal protective equipment

Respiratory protection

None necessary under normal conditions. Wear a self-contained breathing apparatus (SCBA).

Hand Protection

Gloves are recommended to prevent prolonged or repeated contact.

Eye protection

Use safety eyewear designed to protect against splash of liquids.

Skin and body protection

None necessary under normal conditions

Other Protective Equipment

A safety shower and eye wash station should be available for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid	Color	Clear
Odor	Solvent	Odor Threshold	No information available
pH	Not Applicable	Specific Gravity	1.6
Vapor pressure	No data available	Vapor density	No data available
Evaporation Rate	No data available	VOC Content	48.50
Water solubility	No data available	Partition Coefficient (n-octanol/water)	No data available
Boiling point/range °C	72.2	Boiling point/range °F	162.0
Melting point/range °C	No data available	Melting point/range °F	No data available
Flash point °C	5536	Flash point °F	9998

10. STABILITY AND REACTIVITY

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Stability

Stable under normal conditions.

Conditions to avoid

Do not puncture, incinerate or expose to temperatures above 120 degrees F.

Incompatibility

Strong oxidizers. Reactive metals.

Hazardous Decomposition Products

phosgene. Halogen acids.

Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral,rat)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat)
<i>Tetrachloroethylene</i> 127-18-4	2629 mg/kg 2800 mg/kg 4000 ppm	2629 mg/kg 2800 mg/kg 4000 ppm	2629 mg/kg 2800 mg/kg 4000 ppm
<i>1,1,1-Trichloroethane</i> 71-55-6	2000 mg/kg	2000 mg/kg	2000 mg/kg
<i>Carbon Dioxide</i> 124-38-9	836 ppm	836 ppm	836 ppm

Synergistic Products

None known

Potential health effects**Sensitization**

None known

Mutagenic effects

None known

Reproductive toxicity

None known

Carcinogenic effects

See table below

Chronic toxicity

None known

Teratogenic effects

None known

Target Organ Effects

See Section 2

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Tetrachloroethylene	A3 - Confirmed animal carcinogen with unknown relevance to humans	Group 2A	Not Listed	Reasonably Anticipated To Be A Human Carcinogen	Listed
1,1,1-Trichloroethane	A4 - Not Classifiable as a Human Carcinogen	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Tetrachloroethylene

Microtox Data

Tetrahymena pyriformis EC50=100 mg/L (24 h)

Nitrosomonas EC50=112 mg/L (24 h)

Photobacterium phosphoreum EC50=120.0 mg/L (30 min)

Water Flea Data

Daphnia magna EC50=7.49 mg/L (48 h)

1,1,1-Trichloroethane

Microtox Data

Photobacterium phosphoreum EC50=105 mg/L (5 min)

Water Flea Data

Daphnia magna EC50=2384 mg/L (48 h)

water flea EC50>530 mg/L (48 h)

13. DISPOSAL CONSIDERATIONS

Disposal Information

Dispose in accordance with federal, state, and local regulations. Do not puncture or incinerate.

Waste from residues / unused products

No information available

14. TRANSPORT INFORMATION

DOT

Consumer commodity, ORM-D

TDG

UN1950 AEROSOLS, flammable, 2.1

14. TRANSPORT INFORMATION

IMDG/IMO

UN1950 Aerosols, flammable, 2.1

IATA

ID8000 Consumer commodity, 9

MEX

UN1950 Aerosols, flammable, 2.1

15. REGULATORY INFORMATION

Chemical Name	US EPA SARA 313 Emission Reporting
Tetrachloroethylene	Listed
1,1,1-Trichloroethane	Listed

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Tetrachloroethylene	Listed	Listed	Carcinogen
1,1,1-Trichloroethane	Listed	Listed	Not Listed
Carbon Dioxide	Not Listed	Listed	Not Listed

Chemical Name	EINECS	DSL	NDSL	TSCA
Tetrachloroethylene	X	X	-	X
1,1,1-Trichloroethane	X	X	-	X
Carbon Dioxide	X	X	-	X

CPRC

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

16. OTHER INFORMATION

NFPA		HMIS	
Health	3	Health	1
Flammability	1	Flammability	0
Reactivity	1	Physical Hazard	0

Prepared By

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The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.