

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

## Product identifier

Trade Name	Brake Kleen (Deodorized)
Product Code	303

## Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Brake and Parts Cleaner
Uses Advised Against	None

Company Identification	Kleen-Flo Tumbler Ind. Ltd. 75 Advance Blvd. Brampton, ON L6T 4N1
Telephone	905-793-4311
Fax	905-793-4318

## Emergency telephone number

Emergency Phone No.	CANUTEC: 613-996-6666
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## SECTION 2: HAZARDS IDENTIFICATION

## Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Compressed dissolved gas; Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B; Carc. 2; STOT SE 3

## Label elements

Hazard Symbol



## WARNING

Signal word(s)

Hazard Statement(s)

Contains gas under pressure; may explode if heated.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Suspected of causing cancer. (oral; Liver)  
May cause drowsiness or dizziness.

Precautionary Statement(s)

Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.

Wash hands and exposed skin after use.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Contaminated work clothing should not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep out of reach of children.

## Other hazards

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

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt.	CAS No.	Hazard classification
Tetrachlorethylene	70-80	127-18-4	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Carc. 2; H351 (oral; Liver) STOT SE 3; H336 Aquatic Acute 2; H401 Aquatic Chronic 2; H411
Methanol	10-20	67-56-1	Flam. Liq. 2; H225 Acute Tox. 3; H301, H311, H331 STOT SE 1; H370
d-Limonene	1-5	5989-27-5	Flam Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 1; H410
Carbon Dioxide	3-8	124-38-9	Compressed dissolved gas; H280

Additional Information – None

## SECTION 4: FIRST AID MEASURES



## Description of first aid measures

Inhalation	Move person to fresh air. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Get immediate medical attention.

## Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

## Indication of any immediate medical attention and special treatment needed

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

## SECTION 5: FIRE-FIGHTING MEASURES

## Extinguishing Media

- Suitable Extinguishing Media
- Unsuitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray.  
Do not use water jet.

## Special hazards arising from the substance or mixture

None

**Advice for fire-fighters**

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid contact with skin and eyes.
<b>Environmental precautions</b>	None
<b>Methods and material for containment and cleaning up</b>	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
<b>Reference to other sections</b>	None
<b>Additional Information</b>	None

**SECTION 7: HANDLING AND STORAGE**

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Use product in a well-ventilated area only.
<b>Conditions for safe storage, including any incompatibilities</b>	
-Storage temperature	Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.
-Incompatible materials	This product should be stored away from sources of strong heat or oxidizing chemicals.
<b>Specific end use(s)</b>	Electrical Motor / Parts Cleaner

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Tetrachlorethylene	127-18-4	100 ppm	25 ppm	200 ppm*	100 ppm	*Ceiling
Methanol	67-56-1	200 ppm	200 ppm	----	250 ppm	None
Carbon Dioxide	124-38-9	5,000 ppm	5,000 ppm	-----	30,000 ppm	#

\*300 ppm: Acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift. 5 min in any 3 hours

**Recommended monitoring method** NIOSH 3704 (Perchloroethylene)

**Exposure controls**

**Appropriate engineering controls** Ensure adequate ventilation.

**Personal protection equipment**

Eye/face protection Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)



Wear suitable gloves if prolonged skin contact is likely (Nitrile rubber).  
Check with protective equipment manufacturer's data.

Respiratory protection



Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

#### Environmental Exposure Controls

Avoid release to the environment.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Appearance	Aerosol spray
Color.	Clear
Odor	Ether-like
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	-22 °C (-7.6 °F)
Boiling point/boiling range (°C):	121.4°C (250.52 °F)
Flash Point (°C)	>93 (200 °F)
Evaporation Rate	Not available
Flammability (solid, gas)	Note 1*
Explosive Limit Ranges	Not available
Vapor pressure (Pascal)	2500 @ 25 °C
Vapor Density (Air=1)	Not available
Density (g/ml)	1.61 @ 25 °C
Solubility (Water)	150 mg/L
Solubility (Other)	Miscible
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	Not available
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	0.524 mm <sup>2</sup> /s
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

#### Other information

\*Note 1 - Product is not classified as flammable, but will burn on contact with flame or exposure to high temperature.

### SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	None anticipated.
<b>Conditions to avoid</b>	Avoid contact with heat and ignition sources.

**Incompatible materials**

This product should be stored away from sources of strong heat or oxidizing chemicals.

**Hazardous decomposition product(s)**

Chlorine, Hydrogen chloride, Phosgene, Carbon monoxide, Carbon dioxide, Acrid smoke

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

**Information on toxicological effects**Tetrachloroethylene (CAS No. 127-18-4):**Acute toxicity** (calculated / estimated)

Oral: LD50 3005-3835 mg/kg-bw  
Dermal: LD50 >10000 mg/kg-bw  
Inhalation: LC0 ≥20 mg/l (Vapor), 4-hr. rat - May cause drowsiness or dizziness.

**Irritation/Corrosivity**

Causes skin irritation. Repeated exposure may cause skin dryness or cracking. Causes serious eye irritation.

**Sensitization**

May cause an allergic skin reaction.

**Repeated dose toxicity**

Oral: LOEAL 390-540 mg/kg  
Inhalation: LOAEC ≥200 ppm

**Carcinogenicity**

Suspected of causing cancer.

NTP	IARC	ACGIH	OSHA	NIOSH
Reasonably anticipated	2A	A3	No.	No.

**Mutagenicity**

Not to be expected

**Reproductive toxicity**

Not to be expected

d-Limonene (CAS No. 5989-27-5) - By analogy with similar materials:**Acute toxicity**

LD50(Oral): >5000 mg/kg bw (rat)  
LD50(Dermal): >2000 mg/kg bw (rabbit)

**Irritation/Corrosivity**

Causes skin irritation.

**Sensitization**

Sensitizer. May cause an allergic skin reaction.

**Repeated dose toxicity**

Not available.

**Carcinogenicity**

It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	3	No.	No.	No.

**Mutagenicity**

Not to be expected

**Reproductive toxicity**

Not to be expected

Methanol (CAS# 67-56-1)**Acute toxicity \***

LD50 (oral, monkey): 7000 mg/kg-bw  
LD0 (oral, rat): ≥ 2528 mg/kg-bw  
LC50 (inhal., cat, 6-hours): 43.68 mg/L  
LC50 (inhal., monkey, 4-hours): 52 mg/L  
Ingestion may damage the optic nerve.  
May cause dizziness and drowsiness.

**Irritation**

May cause eye irritation.

**Sensitisation**

It is not a skin sensitizer.

**Repeated dose toxicity**

NOAEC (2-yr. inhal., mouse): ≥ 1.3 mg/L

**Developmental Toxicity**

Negative. Not a specific developmental toxin.

# BRAKE KLEEN ( DEODORIZED)

# STOCK # 303

**Toxicity for reproduction**  
**Mutagenicity**

Negative. Not a specific reproductive toxin.  
Negative

**Carcinogenicity**

<b>NTP</b>	<b>IARC</b>	<b>ACGIH</b>	<b>OSHA</b>	<b>NIOSH</b>
No.	No.	No.	No.	No.

**Other information**

\* ATE (oral) = 100 mg/kg  
\* ATE (dermal) = 300 mg/kg  
\* ATE (inhalation) = 3 mg/L

\*ATE = Acute Toxicity Estimate for purposes of classification

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Tetrachloroethylene (CAS No. 127-18-4):

Short term

LC50 (96 hour): 5 mg/L (*Limanda limanda*)  
EC50 (48 hour): 8.5 mg/L (*Daphnia magna*)  
EC50 (72 hour): 3.64 mg/L (*Chlamydomonas reinhardtii*)

Long Term

NOEC (28 days): 2.34 mg/L (*Jordanella floridae*)  
NOEC (28 days): 0.51 mg/L (*Daphnia magna*)  
LOEL (72 hour): 3.64 mg/L (*Chlamydomonas reinhardtii*)

**Persistence and degradability**

Not readily biodegradable.

**Bioaccumulative potential**

The product has low potential for bioaccumulation.

**Mobility in soil**

The product has high mobility in soil.

**Results of PBT and vPvB assessment**

Not classified as PBT or vPvB.

**Other adverse effects**

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

## SECTION 14: TRANSPORT INFORMATION

	<u>U.S. DOT</u>	<u>Sea transport (IMDG)</u>	<u>Air transport (ICAO/IATA)</u>
<b>UN number</b>	1950	1950	1950
<b>Proper Shipping Name</b>	Aerosols	Aerosols	Aerosols
<b>Transport hazard class(es)</b>	2.2	2.2	2.2
<b>Packing group</b>	Not applicable	Not applicable	Not applicable
<b>Environmental hazards</b>	None assigned	None assigned	None assigned
<b>Special precautions for user</b>	None assigned	None assigned	None assigned

This product is exempted under TDG section 1.17 as limited quantity and can be shipped as limited quantity.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

## SECTION 15: REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**TSCA (Toxic Substance Control Act) - Inventory Status:** All components listed or polymer exempt.

**Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):**

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
Tetrachlorethylene	127-18-4	96.09	100
Methanol	67-56-1	1 - 5	5000

**SARA 311/312 - Hazard Categories:**

Fire   
 Sudden Release   
 Reactivity   
 Immediate (acute)   
 Chronic (delayed)

**SARA 313 - Toxic Chemicals (40 CFR 372):**

Chemical Name	CAS No.	Typical %wt.
Tetrachlorethylene	127-18-4	>95
Methanol	67-56-1	1 - 5

**SARA 302 - Extremely Hazardous Substances (40 CFR 355):**

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

**California Proposition 65 List:**

Chemical Name	CAS No.	Type of Toxicity
Tetrachlorethylene	127-18-4	Cancer
Methanol	67-56-1	Developmental

<b>SECTION 16: OTHER INFORMATION</b>
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**Date of preparation:** May 6,2016

**Prepared by:** Kleen-Flo Tumbler Industries Ltd.

**Guidelines for SDS use:** The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

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