

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/18/2014

Reviewed on 02/18/2014

1 Identification

- **Product identifier**
- **Trade name:** Brake Kleen
- **Article number:** 7050 PK
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Power Kleen Corporation
101 South Bayview Blvd.
OLDSMAR, FL 34677
USA
- **Information department:** Product Safety Department
- **Emergency telephone number:** ChemTel Inc. (800) 255-3924 Intl. +01 (813) 248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1B H350 May cause cancer.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
trichloroethylene
Stoddard solvent

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- **Hazard statements**

Highly flammable liquid and vapor.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of causing genetic defects.
 May cause cancer.
 May cause drowsiness or dizziness.
 May be fatal if swallowed and enters airways.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.
 Keep out of reach of children.
 Read label before use.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

8052-41-3 Stoddard solvent

- **Identification number(s)**

- **EC number:** 232-489-3

- **Index number:** 649-345-00-4

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

79-01-6	trichloroethylene	50-100%
8052-41-3	Stoddard solvent	25-50%

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· SVHC

79-01-6 trichloroethylene

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Provide oxygen treatment if affected person has difficulty breathing.

Take affected persons out into the fresh air.

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Remove contact lenses if able to do so.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** A person vomiting while lying on their back should be turned onto their side.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

Coughing

Unconsciousness

Nausea

Cramp

Gastric or intestinal disorders

Dizziness

Headache

- **Danger**

Danger of disturbed cardiac rhythm.

Danger of impaired breathing.

- **Indication of any immediate medical attention and special treatment needed**

Later observation for pneumonia and pulmonary edema.

Medical supervision for at least 48 hours.

If swallowed or in case of vomiting, danger of entering the lungs.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Provide solvent resistant, sealed floor.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
- **Further information about storage conditions:**
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

79-01-6 trichloroethylene

PEL	Long-term value: 100 ppm Ceiling limit value: 200; 300* ppm *5-min peak in any 2 hrs
REL	See Pocket Guide Apps. A and C
TLV	Short-term value: 135 mg/m ³ , 25 ppm Long-term value: 54 mg/m ³ , 10 ppm
BEI	

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8052-41-3 Stoddard solventPEL Long-term value: 2900 mg/m³, 500 ppmREL Long-term value: 350 ppm
Ceiling limit value: 1800* mg/m³
*15-minTLV Long-term value: 525 mg/m³, 100 ppm· **Ingredients with biological limit values:****79-01-6 trichloroethylene**BEI 15 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: Trichloroacetic acid (nonspecific)0.5 mg/L
Medium: blood
Time: end of shift at end of workweek
Parameter: Trichloroethanol without hydrolysis (nonspecific)-
Medium: blood
Time: end of shift at end of workweek
Parameter: Trichloroethylene (semi-quantitative)-
Medium: end-exhaled air
Time: end of shift at end of workweek
Parameter: Trichloroethylene (semi-quantitative)· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Neoprene gloves

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Fluorocarbon rubber (Viton)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** Leather gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Solvent resistant protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Clear
Odor:	Petroleum-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	157 °C (315 °F)

· **Flash point:** 40 °C (104 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 230 °C (446 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	1.1 Vol %
Upper:	90.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 77 hPa (58 mm Hg)

· **Density at 20 °C (68 °F):** 0.77 g/cm³ (6.426 lbs/gal)

· **Relative density** Not determined.

· **Vapour density at 20 °C (68 °F)** 4.7 g/cm³ (39.222 lbs/gal)

· **Evaporation rate at 20 °C (68 °F)** 0.20 (nBuAc=1)

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 65.6 %
 - VOC content:** 65.6 %
- **Other information** 505.2 g/l / 4.22 lb/gl
No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

79-01-6 trichloroethylene

Oral	LD50	2402 mg/kg (mouse)
Dermal	LD50	8450 mg/kg (mouse)

- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
Carcinogenic.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

79-01-6	trichloroethylene	2A
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- **NTP (National Toxicology Program)**

79-01-6	trichloroethylene	R
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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA 	UN1992
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG, IATA 	Petroleum Hydrocarbons <i>Flammable liquids, toxic, n.o.s. (Stoddard solvent, Trichloroethylene)</i> FLAMMABLE LIQUID, TOXIC, N.O.S. (Stoddard solvent, TRICHLOROETHYLENE)
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	N/A
<div style="display: flex; align-items: center; gap: 10px;">   </div> <p>Not applicable</p> <ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3+6.1
<ul style="list-style-type: none"> · IMDG, IATA 	
<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Class 	3 Flammable liquids.

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· Label	3+6.1
· Packing group	N/A
· DOT, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	36
· EMS Number:	F-E,S-D
· Segregation groups	Liquid halogenated hydrocarbons
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1992, Flammable liquids, toxic, n.o.s. (Stoddard solvent, Trichloroethylene), 3 (6.1), III

15 Regulatory information

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

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

79-01-6 trichloroethylene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

79-01-6 trichloroethylene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

79-01-6 trichloroethylene

CaH

· **TLV (Threshold Limit Value established by ACGIH)**

79-01-6 trichloroethylene

A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

79-01-6 trichloroethylene

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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- **Hazard pictograms**



- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

trichloroethylene
Stoddard solvent

- **Hazard statements**

Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing genetic defects.
May cause cancer.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**

- **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** *Environment protection department.*

- **Contact:** *Product Safety Department*

- **Date of preparation / last revision** *02/18/2014*

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)

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*HMIS: Hazardous Materials Identification System (USA)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent*

USA