

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/26/2014

Reviewed on 06/26/2014

1 Identification

- **Product identifier**
- **Trade name:** Electric Motor Cleaner
- **Article number:** PK 1616
- **CAS Number:**
79-01-6
- **EC number:**
201-167-4
- **Index number:**
602-027-00-9
- **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**



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 substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
trichloroethylene
- **Hazard statements**
Causes skin irritation.

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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**

Avoid breathing dust/fume/gas/mist/vapours/spray.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Specific treatment (see on this label).
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2
 Fire = 0
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *2
 Fire = 0
 Reactivity = 0

· **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**

79-01-6 trichloroethylene

· **Identification number(s)**

· **EC number:** 201-167-4

· **Index number:** 602-027-00-9

· **SVHC**

79-01-6	trichloroethylene
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4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
 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:**

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

· **After swallowing:**

Call a doctor immediately.

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A person vomiting while lying on their back should be turned onto their side.

Administer medicinal carbon

Do not induce vomiting; immediately call for medical help.

· Information for doctor:

· Most important symptoms and effects, both acute and delayed

Breathing difficulty

Gastric or intestinal disorders

Nausea

Unconsciousness

Disorientation

Dizziness

Headache

· Indication of any immediate medical attention and special treatment needed

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

Monitor circulation.

If necessary oxygen respiration treatment.

Medical supervision for at least 48 hours.

If swallowed, gastric irrigation with added, activated carbon.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· Special hazards arising from the substance or mixture *Phosgene gas*

· Advice for firefighters

· Protective equipment: *Wear self-contained respiratory protective device.*

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Use respiratory protective device against the effects of fumes/dust/aerosol.

· Environmental precautions:

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

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

· 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.

· 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

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Use solvent-proof equipment.

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- 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 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.
 - Store in a cool location.
- **Information about storage in one common storage facility:**
 - Do not store together with alkalis (caustic solutions).
 - Store away from foodstuffs.
- **Further information about storage conditions:**
 - Store receptacle in a well ventilated area.
 - Protect from heat and direct sunlight.
 - 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

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

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· **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

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.

· **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

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Strong 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:	Colorless
Odor:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

Melting point/Melting range:	-86.4 °C (-124 °F)
Boiling point/Boiling range:	87 °C (189 °F)

· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 410 °C (770 °F)· **Decomposition temperature:** Not determined.· **Auto igniting:** Not determined.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	7.9 Vol %
Upper:	90 Vol %

· **Vapor pressure at 20 °C (68 °F):** 77 hPa (58 mm Hg)· **Density at 20 °C (68 °F):** 1.46274 g/cm³ (12.207 lbs/gal)· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with**

Water at 20 °C (68 °F): 1 g/l

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	99.9 %
VOC content:	99.9 %
	1461.3 g/l / 12.19 lb/gl

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- | | |
|--------------------------|--|
| Solids content: | 0.1 % |
| Other information | 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 earth alkaline metals.
 - Reacts with strong oxidizing agents.
 - Reacts with strong alkali.
- **Conditions to avoid**
 - No further relevant information available.
 - Do not spray on naked incandescent flame or heat source, toxic and dangerous gases may form (Phosgene).
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Hydrogen chloride (HCl)
 - Phosgene

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:**

- **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**
 - Toxicity to fish LC50 - *Pimephales promelas* (fathead minnow) - 41 mg/l - 96.0 h
 - LOEC - other fish - 11 mg/l - 10.0 d
 - NOEC - *Oryzias latipes* - 40 mg/l - 10.0 d

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*Toxicity to daphnia
and other aquatic
invertebrates
EC50 - Daphnia magna (Water flea) - 18.00 mg/l - 48 h*


Toxicity to algae IC50 - Pseudokirchneriella subcapitata (green algae) - 175.00 mg/l - 96 h

- *Aquatic toxicity: No further relevant information available.*
- *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 3 (Assessment by list): extremely hazardous for water*
- *Do not allow product to reach ground water, water course or sewage system, even in small quantities.*
- *Danger to drinking water if even extremely small quantities leak into the ground.*
- *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

- | | |
|---|-----------------------------|
| · UN-Number | |
| · DOT, IMDG, IATA | UN1710 |
| · UN proper shipping name | |
| · DOT | Trichloroethylene, solution |
| · IMDG, IATA | TRICHLOROETHYLENE, solution |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 6.1 Toxic substances. |

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· Label	6.1
· IMDG, IATA	
	
· Class	6.1 Toxic substances.
· Label	6.1
· Packing group	
· DOT, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
· Danger code (Kemler):	60
· EMS Number:	F-A,S-A
· Segregation groups	Liquid halogenated hydrocarbons
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1710, Trichloroethylene, solution, 6.1, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Sara
· Section 355 (extremely hazardous substances):
Substance is not listed.
· Section 313 (Specific toxic chemical listings):
Substance is listed.
· TSCA (Toxic Substances Control Act):
Substance is listed.
· Proposition 65
· Chemicals known to cause cancer:
79-01-6 trichloroethylene
· Chemicals known to cause reproductive toxicity for females:
Substance is not listed.
· Chemicals known to cause reproductive toxicity for males.
Substance is not listed.
· Chemicals known to cause developmental toxicity:
Substance is not listed.
· Carcinogenic categories
· EPA (Environmental Protection Agency)
Substance is not listed.

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

79-01-6 trichloroethylene

A2

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

Substance is listed.

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

Substance is not listed.

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

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

trichloroethylene

· **Hazard statements**

*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**

*Avoid breathing dust/fume/gas/mist/vapours/spray.**IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Specific treatment (see on this label).**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 this hazardous material. 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** *6/26/2014*

· **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

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ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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