

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/23/2015

Reviewed on 04/23/2015

## 1 Identification

· **Product identifier**

· **Trade name:** Descaler

· **Article number:** 1505 PK

· **CAS Number:**

7647-01-0

· **EC number:**

231-595-7

· **Index number:**

017-002-00-2

· **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**



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**

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

· **Hazard pictograms**



GHS05 GHS07

· **Signal word** Danger

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

hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)

Ethoxylated Alkyl Amine (Proprietary)

· **Hazard statements**

Harmful if swallowed.

Causes severe skin burns and eye damage.

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May cause respiratory irritation.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not breathe dusts or mists.

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.

Immediately call a poison center/doctor.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

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**

7647-01-0 hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)

· **Identification number(s)**

· **EC number:** 231-595-7

· **Index number:** 017-002-00-2

### 4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

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

· **After skin contact:** Immediately rinse with water.

· **After eye contact:**

Remove contact lenses if able to do so.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Drink large amounts of calcium based antacid followed by milk of magnesia or milk.

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

Do not induce vomiting; immediately call for medical help.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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- **Most important symptoms and effects, both acute and delayed**  
*Latent skin burns with delayed onset (up to 8 hours) can occur at lower concentrations (below 2%) exposure to this product. Skin burns start with an itching sensation and proceed to necrosis of effected tissue.*  
*Corrosive and extremely irritating to all tissues.*  
*Nausea*  
*Breathing difficulty*  
*Cramp*  
*Gastric or intestinal disorders*
- **Danger** *Danger of gastric perforation.*
- **Indication of any immediate medical attention and special treatment needed**  
*Administer Milk of Magnesia or Milk and other non-alcoholic liquids as available. DO NOT INDUCE VOMITING!*  
*In cases of irritation to the lungs, initial treatment with Dexamethason metered aerosol.*  
*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:**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **Special hazards arising from the substance or mixture**  
*Formation of toxic gases is possible during heating or in case of fire.*  
*Hydrogen chloride (HCl)*
- **Advice for firefighters**  
*Product is not flammable, however due to the possible evolution of toxic gases in fire situations, fight surrounding fires from the upwind side of the fire wearing full SCBA protective gear. Avoid breathing fumes, vapors or gases from this product.*
- **Protective equipment:** *Wear fully protective suit.*
- **Additional information** *Cool endangered receptacles with water spray.*

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:**  
*Dilute with plenty of water.*  
*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).*  
*Use neutralizing agent.*  
*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.*

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## 7 Handling and storage

- **Precautions for safe handling**

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

Open and handle receptacle with care.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

Provide acid-resistant floor.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions:** 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:**

**7647-01-0 hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)**

PEL Ceiling limit value: 7 mg/m<sup>3</sup>, 5 ppm

REL Ceiling limit value: 7 mg/m<sup>3</sup>, 5 ppm

TLV Ceiling limit value: 2.98 mg/m<sup>3</sup>, 2 ppm

- **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.

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.

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

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- **Material of gloves**

- Neoprene gloves

- PVC gloves

- Nitrile rubber, NBR

- Fluorocarbon rubber (Viton)

- Butyl rubber, BR

- 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:**

- Strong gloves

- Leather gloves

- **Eye protection:**



Tightly sealed goggles

- **Body protection:**

- Boots

- Full head, face and neck protection

- Apron

## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

- Form:** Liquid

- Color:** Light yellow

- **Odor:** Acidic

- **Odour threshold:** Not determined.

- **pH-value at 20 °C (68 °F):** < 0.5

- **Change in condition**

- Melting point/Melting range:** -40 °C (-40 °F)

- Boiling point/Boiling range:** > 110 °C (> 230 °F)

- **Flash point:** Not applicable.

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

- **Ignition temperature:**

- Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

- Lower:** Not determined.

- Upper:** Not determined.

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· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C (68 °F):</b>	1.174 g/cm <sup>3</sup> (9.797 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water at 20 °C (68 °F):</b>	720 g/l
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC content:</b>	0.5 g/l / 0.00 lb/gl
<b>Solids content:</b>	0.1 %
· <b>Other information</b>	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**  
 May produce violent reactions with bases and numerous organic substances including alcohols and amines.  
 Reacts with metals forming hydrogen.  
 Develops corrosive gases / fumes.  
 Reacts with light alloys to form hydrogen.  
 Corrosive action on metals.  
 Reacts with various metals.  
 Reacts with amines.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
 Nitrogen oxides  
 Hydrogen  
 Hydrogen chloride (HCl)

## 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity:**
- |   |      |                    |
|---|------|--------------------|
| · <b>LD/LC50 values that are relevant for classification:</b>   |      |                    |
| 7647-01-0 hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%) |      |                    |
| Oral  | LD50 | 900 mg/kg (rabbit) |
- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

7647-01-0	hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)	3
67-63-0	propan-2-ol	3

- **NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** UN3264

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<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p><i>Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid)</i>  <b>CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.</b>  <b>(HYDROCHLORIC ACID)</b></p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>8 Corrosive substances 8</p>
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>8 Corrosive substances 8</p>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>	<p>II</p>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	<p>No</p>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Segregation groups</b></li> </ul>	<p>80 F-A,S-B Acids</p>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> <li>· <b>DOT</b></li> <li>· <b>Quantity limitations</b></li> </ul>	<p>On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid), 8, II</p>

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## 15 Regulatory information

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

· **Sara**

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

7647-01-0	hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)
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· **Section 313 (Specific toxic chemical listings):**

7647-01-0	hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)
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· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **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.

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

7647-01-0	hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

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

· **Hazard pictograms**



GHS05    GHS07

· **Signal word** Danger

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

hydrochloric acid (Muriatic Acid) 20 deg. Baume (37%)

Ethoxylated Alkyl Amine (Proprietary)

· **Hazard statements**

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not breathe dusts or mists.

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*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.*  
*Immediately call a poison center/doctor.*  
*Store locked up.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*  
 · **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 SDS:** Environment protection department.
- **Date of preparation / last revision** 04/23/2015 / -
- **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*  
*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*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*  
*Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

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