

**Safety Data Sheet**  
 complying with Regulation 1907/2006/EC (REACH  
 Regulation, 453/2010/EC and Regulation No 1272/2008/EC  
 (CLP)



KALOGEROPOULOS S.A.

Printing date 24.04.2015

Version number 2

Revision: 24.04.2015

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** SOLVEN KL147
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
 No relevant identified uses-mixture of substances.
- **Application of the substance / the mixture** General cleaner for hard dirt
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Kalogeropoulos Chemicals S.A.  
 D. Gounari 35, 185 31  
 Pireaus, Greece  
 Tel: +30 2104124518  
 Fax: +30 2104101607  
 e-mail: info@kalochem.gr  
 website: www.kalochem.gr
- **1.4 Emergency telephone number:** Emergency telephone number: 112

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation EC No 1272/2008 CLP**  
 GHS05 corrosion  
 Skin Corr. 1A H314 Causes severe skin burns and eye damage.  
 Eye Dam. 1 H318 Causes serious eye damage.

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- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
 C; Corrosive  
 R35: Causes severe burns.
- **Information concerning particular hazards for human and environment:**  
 The product is classified according to European Directive 99/45/EC and its amendments.

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- **2.2 Label elements**
- **Labelling according to Regulation EC No 1272/2008 CLP**  
 The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**  
  
 GHS05
- **Signal word** Danger

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- **Hazard-determining components of labelling:**

potassium hydroxide  
 tetrasodium ethylenediaminetetraacetate  
 alkyl dimethyl benzyl ammonium chloride

- **Hazard statements**

H314 Causes severe skin burns and eye damage.

- **Precautionary statements**

P102 Keep out of reach of children.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P310 Immediately call a POISON CENTER/doctor.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

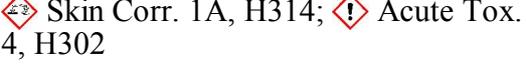
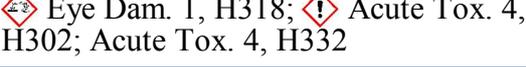
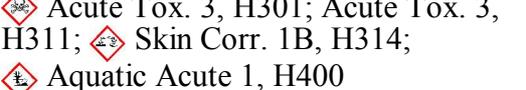
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

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

- **Dangerous components:**

CAS: 1310-58-3 EINECS: 215-181-3 Index number: 019-002-00-8 Reg.nr.: 01-2119487136-33-XXXX	potassium hydroxide  C R35;  Xn R22  Skin Corr. 1A, H314;  Acute Tox. 4, H302	5-<10%
CAS: 64-02-8 EINECS: 200-573-9 Index number: 607-428-00-2 Reg.nr.: 01-2119486762-27-XXXX	tetrasodium ethylenediaminetetraacetate  Xn R22;  Xi R41  Eye Dam. 1, H318;  Acute Tox. 4, H302; Acute Tox. 4, H332	2.5-<3%
CAS: 68424-85-1 EINECS: 270-325-2	alkyl dimethyl benzyl ammonium chloride  C R34;  Xn R21/22;  N R50  Acute Tox. 3, H301; Acute Tox. 3, H311;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400	1-<=2.5%

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**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

**· After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Seek medical treatment in case of complaints.

**· After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

Wash contaminated clothing before use.

Seek immediate medical advice.

Remove contaminated clothing.

**· After eye contact:**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses.

Continue to rinse for at least 10 minutes.

Get medical attention if irritation occurs.

**· After swallowing:**

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek immediate medical advice.

Rinse out mouth and then drink plenty of water.

**· 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**· 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****· 5.1 Extinguishing media****· Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

**· 5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

**· 5.3 Advice for firefighters****· Protective equipment:**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

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### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

Ensure adequate ventilation.

Avoid contact with spilled material.

Avoid contact with skin and eyes.

Goggles and/ or face shield, if contact with eyes or splashes are anticipated.

Avoid inhalation of dust.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

· **6.4 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.

### SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.

Thorough dedusting.

Store in cool, dry place in tightly closed receptacles.

Avoid splashes or spray in enclosed areas.

Avoid prolonged exposure with skin

Avoid contact with skin, eyes and clothing.

Open and handle receptacle with care.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store under lock and key and with access restricted to technical experts or their assistants only.

Store under lock and key and out of the reach of children.

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- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

<b>1310-58-3 potassium hydroxide</b>
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WEL	Short-term value: 2 mg/m <sup>3</sup>
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- **Additional information:** The lists valid during the making were used as basis.

- **8.2 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.

- **Respiratory protection:**



Use suitable respiratory protective device in case of insufficient ventilation.

- **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**

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.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:**

Protective work clothing

### SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Red
<b>Odour:</b>	Light
<b>Odour threshold:</b>	Not determined

<b>pH value at 20 °C:</b>	13-14
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined

<b>Flash point:</b>	Not determined
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<b>Flammability (solid, gaseous):</b>	Not applicable
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· **Auto-ignition temperature:**

<b>Decomposition temperature:</b>	Not determined
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<b>Self-igniting:</b>	Product is not selfigniting.
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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· **Explosion limits:**

<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined

<b>Vapour pressure:</b>	Not determined
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· **Density:**

<b>Relative density at 20 °C</b>	1.05-1.07 g/ml
<b>Vapour density</b>	Not determined
<b>Evaporation rate</b>	Not determined

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- |   |  |
|---|--|
| · <b>Solubility in / Miscibility with water:</b>  | Fully miscible                             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined                             |
| · <b>Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                   | Not determined                             |
| <b>Kinematic:</b>                                 | Not determined                             |
| · <b>9.2 Other information</b>                    | No further relevant information available. |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Stable at environment temperature.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

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

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

**1310-58-3 potassium hydroxide**

Oral	LD50	273 mg/kg (rat)
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- **Primary irritant effect:**
  - **on the skin:** Strong caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:**  
 The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
 Corrosive  
 Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

### SECTION 12: Ecological information

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

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- **12.2 Persistence and degradability**

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**



Dispose according to National Regulations.

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

### SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA**

UN1719

- **14.2 UN proper shipping name**

- **ADR**

1719 CAUSTIC ALKALI LIQUID, N.O.S.  
(POTASSIUM HYDROXIDE)

- **IMDG, IATA**

CAUSTIC ALKALI LIQUID, N.O.S.  
(POTASSIUM HYDROXIDE)

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- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances.
- **Label** 8

- **14.4 Packing group**

- **ADR, IMDG, IATA** II

- **14.5 Environmental hazards:** Not applicable.

- **14.6 Special precautions for user** Warning: Corrosive substances.

- **Danger code (Kemler):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Alkalis

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC**

- **Code** Not applicable.

- **Transport/Additional information:**

- **ADR**
- **Excepted quantities (EQ):** E2
- **Limited quantities (LQ)** 1L
- **Transport category** 2
- **Tunnel restriction code** E
- **UN "Model Regulation":** UN1719, CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE), 8, II

### SECTION 15: Regulatory information

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

Detergent Regulation No. 648/2004/EC  
 CLP Regulation No. 1272/2008/EC  
 Regulation No. 453/2010/EC  
 Directive 99/45/EC

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- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**

It doesn't contain substances of very high concern (SVHC).

- **15.2 Chemical safety assessment:**

Not applicable

A Chemical Safety Assessment has not been carried out.

### SECTION 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.

- **Relevant phrases**

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

R21/22 Harmful in contact with skin and if swallowed.

R22 Harmful if swallowed.

R34 Causes burns.

R35 Causes severe burns.

R41 Risk of serious damage to eyes.

R50 Very toxic to aquatic organisms.

- **Department issuing MSDS:**



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 REACH & Chemical Services Department  
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e-mail: [info@kalochem.gr](mailto:info@kalochem.gr)

- **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

IATA: International Air Transport Association

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Acute Tox. 3: Acute toxicity, Hazard Category 3  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

**\* Data compared to the previous version altered.**  
Classification according to CLP regulation 1272/2008/EC.

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