

**MAGIC KETTLE DESCALER**
**Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier:** **MAGIC KETTLE DESCALER**  
 Substance type: CLP Mixture

**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

Use of the Substance/Mixture : CLEANER

Recommended restrictions on use : Reserved for industrial and professional use.

**1.3 Details of the supplier of the safety data sheet:**

**COMPANY IDENTIFICATION**  
 Ecolab Ltd.  
 PO Box 11; Winnington Avenue  
 Northwich, Cheshire, CW8 4DX, United Kingdom  
 TEL: + 44 (0)1606 74488

**LOCAL COMPANY IDENTIFICATION**  
 Ecolab Ltd.  
 PO Box 11; Winnington Avenue  
 Northwich, Cheshire, CW8 4DX, United Kingdom  
 TEL: + 44 (0)1606 74488

For Product Safety information please contact: [msdseame@nalco.com](mailto:msdseame@nalco.com)

**1.4 Emergency telephone number:**

Emergency telephone number : Trans-European  
 +441618841235  
 +32-(0)3-575-5555 Trans-European Address European  
 Economic Area HQ

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**Section: 2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification (REGULATION (EC) No 1272/2008)**

Skin irritation, Category 2	H315
Eye irritation, Category 2	H319

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.  
 H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
 P280 Wear protective gloves/ eye protection/ face protection.

**MAGIC KETTLE DESCALER****2.3 Other hazards**

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components**

Chemical Name	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Concentration: [%]
Citric Acid, Monohydrate	5949-29-1 201-069-1 01-2119457026-42	Eye irritation Category 2; H319	10 - < 20
Phosphoric Acid	7664-38-2 231-633-2 01-2119485924-24	Skin corrosion Category 1B; H314 Corrosive to metals Category 1; H290	10 - < 20

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Section: 4. FIRST AID MEASURES****4.1 Description of first aid measures**

- If inhaled : Get medical attention if symptoms occur.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
Use a mild soap if available.  
Get medical attention if irritation develops and persists.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Get medical attention.
- If swallowed : Rinse mouth.  
Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action.  
Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

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

See Section 11 for more detailed information on health effects and symptoms.

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

Treatment : Treat symptomatically.

**Section: 5. FIREFIGHTING MEASURES**

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**5.1 Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:  
Carbon oxides  
Oxides of phosphorus

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

**Section: 6. ACCIDENTAL RELEASE MEASURES**

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

Advice for non-emergency personnel : Ensure adequate ventilation.  
Ensure clean-up is conducted by trained personnel only.  
Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

**6.2 Environmental precautions**

Environmental precautions : Do not allow contact with soil, surface or ground water.

**6.3 Methods and materials for containment and cleaning up**

Methods for cleaning up : Stop leak if safe to do so.  
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Flush away traces with water.  
For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.  
For personal protection see section 8.  
See Section 13 for additional waste treatment information.

**Section: 7. HANDLING AND STORAGE**

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**7.1 Precautions for safe handling**

- Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

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

- Requirements for storage areas and containers : Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
- Suitable material : Keep in properly labelled containers.

**7.3 Specific end uses**

- Specific use(s) : CLEANER

**Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

**Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m3	UKCOSSTD
		STEL	2 mg/m3	UKCOSSTD

**DNEL**

Phosphoric Acid	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3
		End Use: Workers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 2 mg/m3
		End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 0.73 mg/m3

**8.2 Exposure controls**

**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-

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use. Wash face, hands and any exposed skin thoroughly after handling.

- Eye/face protection (EN 166) : Safety glasses with side-shields
- Hand protection (EN 374) : Recommended preventive skin protection  
Gloves  
Nitrile rubber  
butyl-rubber  
Breakthrough time: 1 – 4 hours  
Minimum thickness for butyl-rubber 0.3 mm for nitrile rubber 0.2 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin and body protection (EN 14605) : Wear suitable protective clothing.
- Respiratory protection (EN 143, 14387) : When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:A-P

**Environmental exposure controls**

- General advice : Consider the provision of containment around storage vessels.

**Section: 9. PHYSICAL AND CHEMICAL PROPERTIES**

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

- Appearance : liquid
- Colour : clear, yellow
- Odour : characteristic
- Flash point : no data available
- pH : < 2, 100 %  
(20 °C)
- Odour Threshold : no data available
- Melting point/freezing point : no data available
- Initial boiling point and boiling range : no data available
- Evaporation rate : no data available
- Flammability (solid, gas) : no data available
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available

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Relative vapour density	: no data available
Relative density	: 1.10 - 1.11
Solubility(ies)	
Water solubility	: soluble in cold water, soluble in hot water
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

**9.2 Other information**

no data available

**Section: 10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

**10.4 Conditions to avoid**

Conditions to avoid : None known.

**10.5 Incompatible materials**

Materials to avoid : Strong bases

**10.6 Hazardous decomposition products**

Hazardous decomposition products : Depending on combustion properties, decomposition products may include following materials:  
Carbon oxides  
Oxides of phosphorus

**Section: 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

Information on likely routes of : Inhalation, Eye contact, Skin contact

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exposure

**Toxicity**

**Product**

- Acute oral toxicity : There is no data available for this product.
- Acute inhalation toxicity : There is no data available for this product.
- Acute dermal toxicity : There is no data available for this product.
- Skin corrosion/irritation : There is no data available for this product.
  
- Serious eye damage/eye irritation : There is no data available for this product.
  
- Respiratory or skin sensitization : There is no data available for this product.
  
- Carcinogenicity : There is no data available for this product.
  
- Reproductive effects : There is no data available for this product.
  
- Germ cell mutagenicity : There is no data available for this product.
  
- Teratogenicity : There is no data available for this product.
  
- STOT - single exposure : There is no data available for this product.
  
- STOT - repeated exposure : There is no data available for this product.
  
- Aspiration toxicity : There is no data available for this product.

**Components**

- Acute oral toxicity : Citric Acid, Monohydrate  
LD50 rat: 11,700 mg/kg  
  
Phosphoric Acid  
LD50 rat: > 2,600 mg/kg

**Components**

- Acute dermal toxicity : Citric Acid, Monohydrate  
LD50 rat: > 2,000 mg/kg  
  
Phosphoric Acid  
LD50 rabbit: > 2,000 mg/kg

**Potential Health Effects**

- Eyes : Causes serious eye irritation.
  
- Skin : Causes skin irritation.
  
- Ingestion : Health injuries are not known or expected under normal use.
  
- Inhalation : Health injuries are not known or expected under normal use.

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Chronic Exposure : Health injuries are not known or expected under normal use.

**Experience with human exposure**

Eye contact : Redness, Pain, Irritation

Skin contact : Redness, Irritation

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

**Further information** : no data available

**Section: 12. ECOLOGICAL INFORMATION**

**12.1 Ecotoxicity**

**Product**

Environmental Effects : This product has no known ecotoxicological effects.

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

**Components**

Toxicity to fish : Citric Acid, Monohydrate  
96 h LC50 Fish: > 100 mg/l

**Components**

Toxicity to daphnia and other aquatic invertebrates : Phosphoric Acid  
48 h EC50 Daphnia magna (Water flea): > 100 mg/l

**Components**

Toxicity to algae : Phosphoric Acid  
72 h EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

**12.2 Persistence and degradability**

**Product**

no data available

**Components**

Biodegradability : Citric Acid, Monohydrate  
Result: Readily biodegradable.

Phosphoric Acid  
Result: Not applicable - inorganic



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**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

**Product**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

no data available

**Section: 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

**13.1 Waste treatment methods**

- Product : Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.  
Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.
- Guidance for Waste Code selection : Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

**Section: 14. TRANSPORT INFORMATION**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

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**Land transport (ADR/ADN/RID)**

14.1 UN number: Not applicable.  
 14.2 UN proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION  
 14.3 Transport hazard class(es): Not applicable.  
 14.4 Packing group: Not applicable.  
 14.5 Environmental hazards: No  
 14.6 Special precautions for user: Not applicable.

**Air transport (IATA)**

14.1 UN number: Not applicable.  
 14.2 UN proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION  
 14.3 Transport hazard class(es): Not applicable.  
 14.4 Packing group: Not applicable.  
 14.5 Environmental hazards: No  
 14.6 Special precautions for user: Not applicable.

**Sea transport (IMDG/IMO)**

14.1 UN number: Not applicable.  
 14.2 UN proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION  
 14.3 Transport hazard class(es): Not applicable.  
 14.4 Packing group: Not applicable.  
 14.5 Environmental hazards: No  
 14.6 Special precautions for user: Not applicable.  
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

**Section: 15. REGULATORY INFORMATION**

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

**INTERNATIONAL CHEMICAL CONTROL LAWS**

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out on the product.

**Section: 16. OTHER INFORMATION**

**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008**

Classification	Justification
Skin irritation 2, H315	Calculation method
Eye irritation 2, H319	Calculation method

**Full text of H-Statements**

H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H319 Causes serious eye irritation.

**Full text of other abbreviations**

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ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS – Australian Inventory of Chemical Substances; ASTM – American Society for the Testing of Materials; bw – Body weight; CLP – Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR – Carcinogen, Mutagen or Reproductive Toxicant; DIN – Standard of the German Institute for Standardisation; DSL – Domestic Substances List (Canada); ECHA – European Chemicals Agency; EC-Number – European Community number; ECx – Concentration associated with x% response; ELx – Loading rate associated with x% response; EmS – Emergency Schedule; ENCS – Existing and New Chemical Substances (Japan); ErCx – Concentration associated with x% growth rate response; GHS – Globally Harmonized System; GLP – Good Laboratory Practice; IARC – International Agency for Research on Cancer; IATA – International Air Transport Association; IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 – Half maximal inhibitory concentration; ICAO – International Civil Aviation Organization; IECSC – Inventory of Existing Chemical Substances in China; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; ISHL – Industrial Safety and Health Law (Japan); ISO – International Organisation for Standardization; KECI – Korea Existing Chemicals Inventory; LC50 – Lethal Concentration to 50 % of a test population; LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL – International Convention for the Prevention of Pollution from Ships; n.o.s. – Not Otherwise Specified; NO(A)EC – No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR – No Observable Effect Loading Rate; NZIoC – New Zealand Inventory of Chemicals; OECD – Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT – Persistent, Bioaccumulative and Toxic substance; PICCS – Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR – (Quantitative) Structure Activity Relationship; REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID – Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT – Self-Accelerating Decomposition Temperature; SDS – Safety Data Sheet; TCSI – Taiwan Chemical Substance Inventory; TRGS – Technical Rule for Hazardous Substances; TSCA – Toxic Substances Control Act (United States); UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Safety Data Sheet : IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

The possible key literature references and data sources which may have been used in conjunction with the consideration of expert judgment to compile this Safety Data Sheet: European regulations/directives (including (EC) No. 1907/2006, (EC) No. 1272/2008), supplier data, inter-net, ESIS, IUCLID, ERICards, Non European official regulatory data and other data sources.

Prepared By : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.