

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

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

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

Use of the Substance/Mixture : DESCALERS

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

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)

| | |
|---------------------------------|------|
| Corrosive to metals, Category 1 | H290 |
| Skin corrosion, Category 1 | H314 |
| Serious eye damage, Category 1 | H318 |

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.

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

Response:

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P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label:
Hydrochloric Acid

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: [%] |
|--|--|--|-----------------------|
| Hydrochloric Acid | 7647-01-0 231-595-7 01-2119472431-44 | Nota B Skin corrosion Sub-category 1B; H314 Serious eye damage Category 1; H318 Specific target organ toxicity - single exposure Category 3; H335 | 5 - < 10 |
| betaines, bis(hydroxyethyl)tallow alkyl | 70750-46-8 | Skin irritation Category 2; H315 Eye irritation Category 2; H319 | 5 - < 10 |
| Alcohols, C12-15, ethoxylated | 68131-39-5 01-2119488720-33 | Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 3; H412 | 1 - < 2.5 |
| Alkylbenzyltrimethylammonium chlorides | 63449-41-2 264-151-6 | Acute toxicity Category 4; H302 Acute toxicity Category 4; H312 Skin corrosion Category 1B; H314 Acute aquatic toxicity Category 1; H400 | 0.5 - < 1 |

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 : Remove to fresh air.
Treat symptomatically.
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.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Get medical attention immediately.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

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for at least 15 minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical attention immediately.

If swallowed : Rinse mouth with water.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Get medical attention immediately.

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

5.1 Extinguishing media

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

Unsuitable extinguishing media : None known.

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
nitrogen oxides (NOx)
Sulphur 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.
Keep people away from and upwind of spill/leak.

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Avoid inhalation, ingestion and contact with skin and eyes.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
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).
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

7.1 Precautions for safe handling

Advice on safe handling : Do not ingest. Do not breathe spray, vapour. Do not get in eyes, on skin, or on clothing. 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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

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.

Unsuitable material :
not determined

7.3 Specific end uses

Specific use(s) : DESCALERS

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| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|-------------------|-----------|-------------------------------|------------------------------|----------|
| Hydrochloric Acid | 7647-01-0 | TWA (Gas and aerosol mists) | 1 ppm 2 mg/m ³ | UKCOSSTD |
| | | STEL (Gas and aerosol mists) | 5 ppm 8 mg/m ³ | UKCOSSTD |

DNEL

| | | |
|-------------------|---|--|
| Hydrochloric Acid | : | End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - local Value: 15 mg/m ³ |
| | | End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 8 mg/m ³ |

PNEC

| | | |
|-------------------|---|---|
| Hydrochloric Acid | : | Fresh water Value: 0.036 mg/l |
| | | Marine water Value: 0.036 mg/l |
| | | Intermittent use/release Value: 0.045 mg/l |
| | | Sewage treatment plant Value: 0.036 mg/l |

8.2 Exposure controls**Appropriate engineering controls**

Effective exhaust ventilation system.

Maintain air concentrations below occupational exposure standards.

Individual protection measures

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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Eye/face protection (EN 166) : Safety goggles
Face-shield

Hand protection (EN 374) : Recommended preventive skin protection
Gloves
Nitrile rubber
butyl-rubber

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Breakthrough time: 1 – 4 hours
Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4 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) : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing including appropriate safety shoes

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:

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
Odour : no data available
Flash point : > 100 °C

pH : < 0.5
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
Relative vapour density : no data available
Relative density : 1.030 - 1.050
Water solubility : no data available
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available

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| | |
|---------------------------|---------------------|
| 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
nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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

Toxicity

Product

Acute oral toxicity : There is no data available for this product.
Acute inhalation toxicity : There is no data available for this product.

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- 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 : Alcohols, C12-15, ethoxylated
LD50 rat: > 5,000 mg/kg

Alkylbenzyltrimethylammonium chlorides
LD50 rat: 600 mg/kg

Components

- Acute inhalation toxicity : Hydrochloric Acid
LC50 rat: 3789 ppm
Exposure time: 4 h
Test atmosphere: gas

Components

- Acute dermal toxicity : Alcohols, C12-15, ethoxylated
LD50 rat: > 2,000 mg/kg

Alkylbenzyltrimethylammonium chlorides
Acute toxicity estimate : 1,100 mg/kg

Potential Health Effects

- Eyes : Causes serious eye damage.
- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

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Eye contact : Redness, Pain, Corrosion
Skin contact : Redness, Pain, Corrosion
Ingestion : Corrosion, Abdominal pain
Inhalation : Respiratory irritation, Cough
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 : Alcohols, C12-15, ethoxylated
96 h LC50 Pimephales promelas (fathead minnow): 1.4 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Alcohols, C12-15, ethoxylated
48 h EC50 Daphnia magna (Water flea): 0.14 mg/l

Components

Toxicity to algae : Alcohols, C12-15, ethoxylated
72 h EC50 Pseudokirchneriella subcapitata (green algae): 0.75 mg/l

Components

Toxicity to fish (Chronic toxicity) : Alcohols, C12-15, ethoxylated
10 d NOEC Pimephales promelas (fathead minnow): 0.16 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Alcohols, C12-15, ethoxylated
21 d NOEC Daphnia magna (Water flea): 0.77 mg/l

12.2 Persistence and degradability

Product

no data available

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Components

| | |
|------------------|---|
| Biodegradability | : Hydrochloric Acid Result: Not applicable - inorganic |
| | betaines, bis(hydroxyethyl)tallow alkyl Result: Biodegradable |
| | Alcohols, C12-15, ethoxylated Result: Readily biodegradable. |
| | Alkylbenzyltrimethylammonium chlorides Result: no data available |

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 | : Inorganic 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 |

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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.

Land transport (ADR/ADN/RID)

| | |
|------------------------------------|----------------------------|
| 14.1 UN number: | UN 1789 |
| 14.2 UN proper shipping name: | HYDROCHLORIC ACID SOLUTION |
| 14.3 Transport hazard class(es): | 8 |
| 14.4 Packing group: | III |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user: | Not applicable. |

Air transport (IATA)

| | |
|------------------------------------|----------------------------|
| 14.1 UN number: | UN 1789 |
| 14.2 UN proper shipping name: | HYDROCHLORIC ACID SOLUTION |
| 14.3 Transport hazard class(es): | 8 |
| 14.4 Packing group: | III |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user: | Not applicable. |

Sea transport (IMDG/IMO)

| | |
|--|----------------------------|
| 14.1 UN number: | UN 1879 |
| 14.2 UN proper shipping name: | HYDROCHLORIC ACID SOLUTION |
| 14.3 Transport hazard class(es): | 8 |
| 14.4 Packing group: | III |
| 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 |
|-----------------------------|-------------------------------------|
| Corrosive to metals 1, H290 | Based on product data or assessment |
| Skin corrosion 1, H314 | Based on product data or assessment |
| Serious eye damage 1, H318 | Based on product data or assessment |

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Full text of H-Statements

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of other abbreviations

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

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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.