

LIME SCALE REMOVER

FEATURES & APPLICATIONS

Unico Lime Scale Remover can be used on stainless steel and is safe enough to use for descaling kettles, urns and boilers. It is unperfumed so it will not taint surfaces.

Unico Lime Scale Remover will remove limescale and surface dirt from brick and stonework.

Unico Lime Scale Remover will also clean and descale toilet bowls and urinals.

APPLICATION DETAILS

Task

Maximum Dilution

How To Use

Cleaning and descaling kettles, urns and boilers.
Removing limescale and surface dirt on brick and stonework.

1 in 5 with water.
(1 litre per 5 litres).

Pour over area then leave for 15 minutes ensuring complete coverage Rinse thoroughly with fresh water before use.

Cleaning and descaling toilet bowls and urinals.

Use undiluted.

Pour over surface, ensuring complete coverage. Leave for 15 minutes, then flush or rinse with water.

PRODUCT AND PACKAGING INFORMATION

Appearance & Odour: Coloured liquid with mild odour.

Chemical Description: An aqueous solution of citric acid, surfactant and dye.

Packaging: 2 X 5 litres.

Shelf Life: 2 years.

ENVIRONMENTAL INFORMATION

General Information: This product is expected to have very little ecological impact.

Environmental Checklist:

| | | | | | |
|--------------------------|-----|-------------------------|-----|-------------------------|-----|
| Biodegradable detergents | Yes | CFC free | Yes | Solvent free | Yes |
| Phosphate free | Yes | Acid/alkali free | No | Free of dyes/perfumes | No |
| Recyclable packaging | Yes | Biodegradable container | No | Biodegradable outer box | Yes |

FURTHER INFORMATION AVAILABLE ON REQUEST

PRODUCT SAFETY DATA SHEET



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

| | | | |
|--|--|----------------------------|--|
| Commercial Name Intended/Recommended use | Lime Scale Remover Lime Scale Remover. | Supplier Address | Unico Ltd North Main Street, Carronshore, Falkirk FK2 8HT 01324 573400 01324 573401 |
| Issue Date Issue Number | May'15 8 | Telephone Fax | |

2. HAZARDS IDENTIFICATION

| | | |
|---------------------------|---|---|
| 2.1 Classification | This product is classified under EC 1272/2008 | |
| | Physical and Chemical Hazards | Not classified |
| | Human Health | May be irritating to skin & severely damaging to eyes |
| | Environment | Not classified |

2.1 Label Elements Label in Accordance with (EC) No. 1272/2008



| | |
|--------------------------|---|
| Signal Word | Warning |
| Hazard Statements | H319 Causes serious eye irritation H315 Causes skin irritation H302 Harmful if swallowed |
| Precautionary Statements | P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. EUH 210 Safety data sheet available on request. P301 +P330 +P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting P302 +P352 IF ON SKIN: Wash with plenty of soap and water P332 + P313 If skin irritation occurs: Get medical advice/attention. P305 +P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P281 Use personal protective equipment as required. Wear eye protection when there is a risk of splashing. Wear rubber/impervious gloves for skin protection. |

3. COMPOSITION OF PRODUCT AND INFORMATION ON INGREDIENTS

3.1 Mixtures

Concentrations below the concentration limit for classification in mixtures means that substance not reaching this does not need to be classified. Those that do not reach this concentration will still be included as indicative advice only.

| | |
|--|--|
| Citric Acid | 5 . 15% |
| CAS-No.: 77-92-9 | EC No.: 201-069-1 |
| Classification (EC 1272/2008) Eye Damage 2 . H319 | Skin Irritant. 2 - H315 Resp. Irritant - H335 |
| Alcohol ethoxylate | 5 - 15% |
| CAS-No.: 68439-46-3 | EC No.: -- |
| Classification (EC 1272/2008) Eye Damage 1 . H318 | Acute 4 . H302 |

| NAME | RANGE | EINECS | CAS No | Conc. Limit for Classification |
|----------|---------|-----------|-----------|--------------------------------|
| CI 18050 | < 5.00% | 223-098-9 | 3734-67-6 | Not defined |
| CI 19140 | < 5.00% | 217-699-5 | 1934-21-0 | Not defined |

4. FIRST AID MEASURES

4.1 Description of first aid measures

- Ingestion** Rinse mouth thoroughly. Do not induce vomiting. Act immediately to prevent further irritation of mouth, throat and stomach mucosa. Seek medical advice immediately
- Inhalation** No ill effects expected at concentrations used. If irritation is experienced go in open air and ventilate area. Mouth and throat may be rinsed with water.
- Eye Contact** Check for and remove contact lenses. Rinse thoroughly with plenty of water for several minutes.
- Skin Contact** Rinse affected area with water as instructed, if needed apply a cold compress to relieve irritation.

4.2 Most important symptoms and effects, both acute & chronic

Where irritation of tissue occurs, stinging and redden accompanied by some discomfort for a short period after exposure no further exposure until condition improves. Be vigilant for asthmatic-like symptoms after inhalation. No Chronic effects known at the concentrations used in the mixture

4.3 Indication of any immediate medical attention and special treatment needed

If irritation to the mouth, throat, stomach, skin, eyes or respiratory system occurs and does not subside within a few minutes after the first aid measures have been carried out, seek immediate medical advice and have this SDS or the product label to hand. Be vigilant for asthma-like respiratory symptoms. These will require immediate medical assistance.

A cold compress can be used to alleviate skin irritation.

5. FIRE FIGHTING MEASURES

- 5.1 Suitable extinguishing media** This product is not flammable. Use fire extinguishing media appropriate for surrounding area.
- Unsuitable extinguishing media** Not applicable.
- 5.2 Special hazards arising from the substance or mixture** Fumes may contain poisonous oxides of carbon and nitrogen (CO_x & NO_x) if affected by fire.
- 5.3 Advice for firefighters** Use appropriate extinguishing media for fires in the area. Firefighters should wear self-contained breathing apparatus if heat generated breakdown products are likely to be present

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing and eyeshields.

6.2 Environmental Precautions

Avoid spillage into surface water drains, soil / subsoil or vegetation.

6.3 Methods and material for containment and cleaning up

Hose away with plenty of water, diluting well, unless this would contaminate a water source or vegetation. In which case either collect, dilute as earlier and pour down waste drain (foul sewer) or absorb onto dry sand or similar material and dispose of safely as commercial waste.

7. HANDLING AND STORAGE

- 7.1 Handling** Avoid contact with skin and eyes. Do not mix with any other chemicals. Avoid contact with alkaline materials
- 7.2 Storage** Store upright in original containers in a cool dry area out of the reach of children.
- 7.3 Specific end use(s)** Use only as directed by the front page of this document and the product label

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

| Name | STD | TWA . 8 Hrs Total inhalable / respirable | | STEL . 15 Min | | Comments |
|----------------------------------|-----|---|--------------------|---------------|----|----------|
| Citric Acid (nuisance dust only) | OEL | 10mg/m ³ | 4mg/m ³ | -- | -- | |

Note: No other substances above 1% in the product with a listed exposure limit

8.2 Exposure Control

- Respiratory Protection** Personal protection is not normally required unless a risk assessment indicates the need for it .In which case wear a facemask with a suitable particulate filter.
- Skin Protection** Personal protection is not normally required unless a risk assessment indicates the need for it .In which case wear protective overalls and safety shoes/boots.
- Eye Protection** Personal protection is not normally required unless a risk assessment indicates the need for it .In which case wear eyeshields.
- Hand Protection** For prolonged contact with skin the use of rubber or PVC gloves is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | | | |
|----------------------|-------------------------|--------------------------|--------------|
| Appearance | Red liquid | Flash Point (ACC) | - |
| Odour | Mild | Viscosity (20C) | 1 cp approx. |
| pH | Between 1 & 2 typically | Relative Density | 1.06 |
| Boiling point | approx. 100 C | Water solubility | Soluble |

9.2 Other Information

None

10. STABILITY AND REACTIVITY

- 10.1 Reactivity** Will react with alkaline materials
- 10.2 Chemical Stability** Stable under normal conditions
- 10.3 Hazardous Reactions** Exothermic with Alkaline materials
- 10.4 Conditions to Avoid** Extreme hot or cold
- 10.5 Incompatible Materials** None noted but some evidence of reactivity / corrosion with steels
- 10.6 Hazardous decomposition products** Oxides of carbon & nitrogen. Hydrogen gas could be evolved from reactions with metals

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

We have not carried out any animal testing for this product. Any ATE figures quoted below are from Toxicity Classifications that have been carried out using ATE (Acute Toxicity Estimate) Calculation Method using LD50 or ATE figures provided by the Raw Material Manufacturer.

Consideration is only given to components with greater than 1% based on the product formulation and those with a listed exposure limit in Section 8.

Acute Toxicity – Irritant & damaging to tissue and eyes

| Component | LD-50, Oral mg/kg | LD-50, Skin mg/kg | LC-50 (Inhalation) | Chronic Consideration |
|-------------|----------------------|---------------------------|-----------------------------|-----------------------|
| Citric Acid | 3000 (rat) | Not known but irritant | Not known but irritating | None known |

Chronic Toxicity

- Carcinogenicity** No evidence
- Sensitization** No evidence
- Mutagenic Effects** No information available
- Reproductive Effects** Some limited evidence but not conclusive.
- Developmental Effects** No information available.
- Target Organs** No evidence but general internal tissue damage from ingestion
- Endocrine Disruptor Info.** No information available.
- Other Adverse Effects** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Ecotoxicity effects

| Component | Toxicity to Fish LC-50, mg/l | Exposure Time, Hrs | Comments |
|-------------|---------------------------------|--------------------------|----------|
| Citric Acid | 440-760 (fish) | 96 | |

12.3 Bioaccumulation Potential

With the current information available, when used for its intended purpose this product will not cause adverse

effects in the environment.

12.4 Mobility in soil No information available but is biodegradable

12.5 Aquatic Toxicity With the current information available, this is judged to be low at the dilutions that exist.

12.6 Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Discharge used working solutions to drain is acceptable in small amounts due to the dilution of running water. Small amounts (less than 1 Litre) of unwanted concentrated product may be flushed with water to sewer with at least 15 minutes of running water.

Larger volumes of the concentrated product must be sent for disposal using a licensed waste disposal contractor.

Rinse out empty container with water and consign to normal waste.

14. TRANSPORT

Not regulated for Transport

15. REGULATORY INFORMATION

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

EU legislation

Safety Data Sheet prepared in accordance with REACH Commission Regulation (EU) No 453/2010 (which amends Regulation (EC) No 1907/2006). The product is as classified under GHS/CLP- Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures. Ingredients are listed with classification GHS/CLP- Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures.

Guidance

Workplace Exposure Limits EH40.

The National Institute for Occupational Safety and Health (NIOSH) register of Immediately Dangerous to Life or Health Concentrations (IDLH)

16. OTHER INFORMATION

This product does not require any special training before use. Usage and handling instructions are mentioned on packaging and on the first page of this Safety Data Sheet. This health and safety information refers to the concentrated product and has been prepared assuming the intended described use is adhered to. Any unusual or novel use of this product is done without being assessed for the impact nor is it part of the considerations in this document.

Diluted solutions can be considered to be significantly less hazardous although they should always be handled with care.

Key literature references and sources for data

Safety Data Sheet, Misc. manufacturers.

CLP Classification - Table 3.1 List of harmonised classification and labelling of hazardous substances.

CHIP Classification - Table 3.2 The list of harmonised classification and labelling of hazardous substances from Annex I to Directive 67/548/EEC.

ECHA - C&L Inventory database.

Revision comments

This product is now using classification from GHS/CLP - Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures.

Revision date 01/05/2017

The Hazard Statements listed below in this Section No 16 relate to the Raw Materials (Ingredients) in the Product (as listed in Section 3) and NOT the product itself. For the Risk Phrases / Hazard Statements relating to this Product see Section 2.

Hazard statements in full

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 Possible respiratory irritation