



HOLCHEM

SAFETY DATA SHEET
OPTIMUM APPLIANCE DESCALER

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

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

1.1. Product identifier

Product name OPTIMUM APPLIANCE DESCALER

Product number OPTK39

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

Identified uses Kettle descaler. For professional use only.

Uses advised against Not for Direct Oral Consumption.

1.3. Details of the supplier of the safety data sheet

Supplier Holchem Laboratories Limited
Gateway House, Pilsworth Road,
Pilsworth Industrial Estate,
Bury, Lancashire (UK)
BL9 8RD

+44 (0) 1706 222288

+44 (0) 1706 221550

info@holchem.co.uk

1.4. Emergency telephone number

Emergency telephone Out of Office Hours Emergency Information:-
For accidents and spillages involving this product that pose a threat to the environment, or human health, or require immediate first aid advice call:- +44(0) 7050 265597.
Note:- This number will not accept order queries or calls dealing with equipment breakdowns. Irish Environmental Protection Agency 1890 335599. This product is registered with the NPIS. UK Environment Agency 24hour Advisory Service 0800 807060.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

2.2. Label elements

Pictogram



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Signal word	Warning
Hazard statements	H319 Causes serious eye irritation.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. 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. P337+P313 If eye irritation persists: Get medical advice/attention.
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CITRIC ACID		30-60%
CAS number: 5949-29-1	EC number: 201-069-1	REACH registration number: 01-2119457026-42
Classification	Classification (67/548/EEC or 1999/45/EC)	
Eye Irrit. 2 - H319	Xi;R36.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments	To the best of our knowledge, all of the substances used in this product are being supported for the relevant application in REACH.
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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	When it is safe to do so, remove victim immediately from source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Place unconscious person on the side in the recovery position and ensure breathing can take place. Rinse mouth thoroughly with water. Get medical attention.
Skin contact	Remove contaminated clothing that is not stuck to the skin. Flush area with clean water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

General information	Neat product may cause irritation to skin and eyes. Dilute chemical may result in mild irritation to skin. Contact of dilute chemical with eyes should still be treated as outlined above.
Inhalation	Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose. If mixed with Hypochlorite based products (Bleach) Chlorine Gas may be evolved, this can result in irritation to eyes and difficulty in breathing. If inhaled this may result in irritation to the mouth, nose and respiratory tract.

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Ingestion	Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, irritation of the mouth, throat and GI tract may occur. If dilute chemical is ingested some soreness of the mouth, throat and GI tract may occur.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	Irritating and may cause redness and pain.
4.3. Indication of any immediate medical attention and special treatment needed	
Notes for the doctor	Rinse well with water to neutral pH. If mixed with acidic material will produce Chlorine Gas, check for respiratory disorders.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards In contact with some metals (Aluminium, Zinc and their Alloys) Hydrogen Gas is formed, which may form an explosive mixture with air. Note - Comment refers to neat product. Contact with Sodium Hypochlorite liberates toxic Chlorine Gas.

5.3. Advice for firefighters

Protective actions during firefighting Protective clothing and respiratory protection should be worn when tackling fires involving this product. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections See sections 8, 12 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Read and follow manufacturer's recommendations.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions Keep container tightly closed. Keep only in the original container. Store in a demarcated banded area to prevent release to drains and/or watercourses. Store between +5 and +40 Degrees C Store away from:- Chlorinated Detergents and Disinfectants.

7.3. Specific end use(s)

Specific end use(s) Detergent / Descaler - Refer to use instructions.

Usage description This product is suitable for use in food preparation areas

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ingredient comments No worker exposure limits noted for this substance. However, care should be taken when using in conjunction with SodiumHypochlorite to ensure that pH values remain >5.5, below this Chlorine gas will be formed. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

CITRIC ACID (CAS: 5949-29-1)

PNEC	<ul style="list-style-type: none"> - Fresh water; 0.44 mg/l - Marine water; 0.044 mg/l - STP; >1000 mg/l - Sediment (Freshwater); 34.6 mg/kg - Sediment (Marinewater); 3.46 mg/kg - Soil; 33.1 mg/kg
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8.2. Exposure controls

Protective equipment



Personal protection

The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment.

Eye/face protection

Wear approved, tight fitting safety glasses where splashing is probable. Refer to EN Standard 166 to select appropriate level of protection.

Hand protection

Rubber (natural, latex). Polyvinyl chloride (PVC). Refer to Standard EN 374. Neoprene.

Other skin and body protection

Provide eyewash station. Wear suitable protective clothing as protection against splashing or contamination. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.

Hygiene measures

Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Wash contaminated clothing before reuse. Provide eyewash station and safety shower.

Respiratory protection

Not normally required.

Environmental exposure controls

Do not allow the substance to contaminate surface water/ground water. See points 6, 12 &13.

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General Health and Safety Measures. The above requirements refer to the neat product. Normal use solutions of this product are unclassified. However, a full COSHH assessment should still be conducted. We recommend use of gloves and eye protection. Risk assessments should refer to COSHH and any other relevant legislation or industry specific guidelines governing the use of Chemicals.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless.
Odour	No characteristic odour.
Odour threshold	Not applicable.
pH	pH (concentrated solution): <3 pH (diluted solution): 2 - 3 @ 1%
Melting point	approx 4°C
Initial boiling point and range	Approximately 100 - 110 Degrees C
Flash point	Not applicable. Contains no Flammable Components
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.25 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable. Not technically practical for mixtures.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	Not determined.
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
<u>9.2. Other information</u>	
Refractive index	Not applicable.
Particle size	Not applicable.
Molecular weight	Not applicable.

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Volatility	Not applicable.
Saturation concentration	Not applicable.
Critical temperature	Not applicable.
Volatile organic compound	Not applicable.
Explosive Properties	Not Classified as Explosive
Storage Temperature Range	+5 to +40 degrees C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not expected to react when correctly stored and used. Mixing with other chemicals may produce unexpected reactions.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. - See note 10.6.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Refer to section 10.1. When used to modify the pH of Sodium Hypochlorite solutions for produce or salad wash applications, careful control of pH is essential. Mixing with Hypochlorite based chemicals could result in the evolution of Chlorine Gas. Do not mix with alkalies/caustics this will result in a violent reaction with the production of heat.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Note:- Comment relates to neat product.

10.5. Incompatible materials

Materials to avoid Reaction with Aluminium, Zinc, Tin, Copper or their alloys produces flammable Hydrogen Gas. - Note: reaction relates to neat product.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Respiratory sensitisation

Respiratory sensitisation No evidence of respiratory sensitisation for any component of this formulation.

Skin sensitisation

Skin sensitisation No evidence of skin sensitisation for any component of this formulation.

Carcinogenicity

Carcinogenicity The components of this formulation will not be systemically available in the body under normal conditions of handling. As a consequence it is not expected to cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility The components of this formulation will not be systemically available in the body under normal conditions of use and handling. As a consequence it is not expected to be toxic to the reproductive system or developing foetus.

General information See section 4.2.

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Inhalation	Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose. - See section 4.2.
Ingestion	Will cause severe irritation to mouth, throat and GI-Tract.
Skin contact	Prolonged or repeated contact of in use solutions with skin may cause redness, itching, irritation and eczema/chapping. Use solutions may cause mild irritation especially to open cuts and abrasions.
Eye contact	Irritating to eyes. Risk of serious damage to eyes.

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Acute toxicity - fish See note 12.0.
Normal use of diluted product is unlikely to pose a risk.
LC₅₀, 96 hours: 100 to 1000mg/ltr mg/l, Fish

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to bioaccumulate.

Partition coefficient Not applicable. Not technically practical for mixtures.

12.4. Mobility in soil

Mobility The product contains substances which are water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Do not mix with other chemicals.

Disposal methods Small volumes of use solution can be disposed of to sewers.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

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Not applicable.

14.3. Transport hazard class(es)

Transport labels

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation

European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC) No.1907/2006.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

(EC) No. 1272/2008 : EU Regulation on Classification, Labelling and Packaging of Substances and Mixtures.

NPIS - National Poisons Information Service.

vPvB - Very Persistent, Very bioaccumulative.

PBT - Persistent, Bioaccumulative & Toxic.

REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC 1907/2006).

DNEL - Derived No Effect Limit.

PNEC - Predicted No Effect Concentration.

COSHH - Control of Substances Hazardous to Health.

Industry - Refers in section 8 to application of the substance in an industrial process.

Professional - Refers in section 8 to application/use of the preparation/product in a skilled trade premises.

General information

This document is a Safety Data Sheet, NOT a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification, for this refer to section 2.

Revision comments

Review in line with CLP Regulation.

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Revision date	01/06/2015
SDS number	20781
Hazard statements in full	H319 Causes serious eye irritation. H319 Causes serious eye irritation.
REACH extended MSDS comments	REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevant recommendations must be passed along the supply chain. These assessments are generally reported in Exposure Scenarios. Where Exposure Scenarios have been provided for substances used in this product, the relevant information is incorporated into the safety data sheet.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.