

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product Identifier**

**Product Name:** KETTLE DESCALER  
**Product Code/s:** 0270-0006  
**Product Use:** Descaler

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

**Identified uses:** Descaler. Manual process.  
**Uses advised against:** Uses other than those identified are not recommended.

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

**Supplier**  
Advantage Chemicals Institutional Ltd  
Unit 9 Strensham Business Park,  
Strensham,  
Worcestershire WR8 9JZ  
Tel: 01684 273299, Web: [www.advchem.co.uk](http://www.advchem.co.uk) Email: [sales@advchem.co.uk](mailto:sales@advchem.co.uk)

**1.4 Emergency telephone number**

**Emergency advice**  
Technical Information & Safety Data Sheets - 01684 273299, Monday - Friday 8.30am - 5.00pm  
Available 24/7 from our website [www.advchem.co.uk](http://www.advchem.co.uk)

**SECTION 2. Hazards identification****2.1 Classification of the substance or mixture**

The product has been classified and labelled in accordance with **Regulation (EC) No 1272/2008 [EU-GHS/CLP]**.

**Classification**

**Physical Hazards:** Met Corr. 1 - H290  
**Health Hazards:** Skin Irrit. 2 - H315; Eye Irrit. 2 - H319  
**Environmental Hazards:** Not classified

**2.2 Label elements**

**Pictogram:**



**Signal Word:** **Warning**

**Hazard Statements**

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Precautionary Statements**

P102 Keep out of reach of children.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
R302 + P352 IF ON SKIN: Wash with plenty of 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.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local regulations.

**Contains:**  
PHOSPHORIC ACID

**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

Ingredient	EC number	CAS number	Classification (EC) 1272/2008	Weight %
PHOSPHORIC ACID 75%	231-633-2	7664-38-2	Met. Corr.1 - H290; Skin Corr. 1B - H314	10-<25%

The full text for all Hazard and Precautionary Statements are displayed in Section 16.

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

#### Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

#### Ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately. Show this Safety Data Sheet to medical personnel.

#### Skin contact

Remove all contaminated clothing immediately and wash with soap and water. Get medical attention if irritation persists after washing.

#### Eye contact

Rinse immediately with plenty of water for 15 minutes. Remove any contact lenses and open eye lids wide apart. Transfer to hospital for specialist examination.

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

#### General information

The severity of the symptoms described will vary dependant on the concentration and the length of exposure.

#### Inhalation

Unlikely source of exposure. Irritation of nose, throat and airway.

#### Ingestion

Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, irritation of the mouth, throat and GI tract may occur.

#### Skin contact

Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Use solutions may cause mild irritation, especially to open cuts and abrasions.

#### Eye contact

Irritating to eyes.

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Immediate / special treatment:

Eye bathing equipment should be available on the premises.

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

Product is not flammable. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

Product is non combustible, on heating corrosive vapours may be formed. Reactions with some metals may produce flammable hydrogen gas..

### 5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus (SCBA) and suitable protective clothing.

## SECTION 6. Accidental release measures

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

Do not attempt to take action without suitable protective clothing - see section 8 of this SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2 Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3 Methods and material for containment and cleaning up

Small spillages: Flush away spillage with plenty of water to clean spillage area.

Large Spillages: Contain and absorb spillage with sand, earth or other non - combustible material. Collect and place in suitable waste disposal containers and seal securely.

### 6.4 Reference to other sections

For personal protection see section 8.

For disposal considerations see section 13.

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### Usage procedures

Wear protective clothing, gloves, eye and face protection. Do not handle broken packages without protective equipment. Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

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

#### Storage precautions

Store in a tightly closed original container, in a dry, cool and well ventilated place.

### 7.3 Specific end use(s)

#### Specific end uses

The identified uses for this product are detailed in Section 1.2.

#### Usage description

See Product Information Sheet & Label for detailed use of this product.

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

PHOSPHORIC ACID 75%

Short term exposure limit (15 minutes): Workplace Exposure Limit (WEL) - 2 mg/m<sup>3</sup>.

### 8.2 Exposure Controls

#### Protective Equipment



#### Appropriate engi-

Ensure there is sufficient ventilation of the area.

#### neering controls

#### Eye/face protection

The following protection should be worn: Chemical splash goggles or face shield. Ensure eye bath is to hand.

#### Hand protection

Wear protective impermeable gloves.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Respiratory protection

Respiratory protection not required unless excessive product misting occurs in a confined space and the level exceeds the Workplace Exposure Limit.

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State</b>	<b>Relative density</b>	<b>Odour</b>	<b>pH (conc)</b>
Liquid.	1.09 - 1.10	Characteristic.	1 - 2
<b>Colour</b>	<b>Solubility in water</b>		
Yellow.	Soluble		

### 9.2 Other Information

None.

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Reactions with the following materials may generate heat: Strong acids and oxidising agents. Do not mix with Hypochlorite based chemicals as this will result in the generation of toxic chlorine gas.

### 10.2 Chemical stability

No particular stability concerns.

### 10.3 Possibility of hazardous reactions

See sections 10.1, 10.4 and 10.5

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

Strong acids & oxidising substances. Aluminium, Tin, Zinc and their alloys.

### 10.6 Hazardous decomposition products

In combustion emits toxic fumes.

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

PHOSPHORIC ACID 75%	ORL	RAT	LD50	2600 mg/kg
	DERMAL	RBT	LD50	2740 mg/kg
	INH	RAT	LD50	3846 mg/kg

### Relative effects for mixture

Effect	Route	Basis
Corrosivity	OPT INH DRM	Hazardous: calculated

## SECTION 12. Ecological information

### 12.1 Toxicity

#### Hazardous ingredients

PHOSPHORIC ACID 75%

Fishes 1	96H LC50	138 mg/litre
Other aquatic organisms	96H LC50	240 mg/litre

### 12.2 Persistence and degradability

The product is expected to be biodegradable.

### 12.3 Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

### 12.4 Mobility in soil

Readily absorbed into soil.

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

<b>Disposal operations</b>	Discharge used solutions to drain. Do not mix with other chemicals. Rinse out empty container with water and consign to normal waste.
<b>Disposal of packaging</b>	Arrange for disposal by specialist disposal company.
<b>NB</b>	The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## SECTION 14. Transport information

### 14.1 UN number

UN No. (ADR/RID)

### 14.1 UN number

1805

UN No. (IMDG)

1805

UN No. (ICAO)

1805

### 14.2 UN proper shipping name

Proper shipping name (ADR/RID) PHOSPHORIC ACID SOLUTION

Proper shipping name (IMDG) PHOSPHORIC ACID SOLUTION

Proper shipping name (ICAO) PHOSPHORIC ACID SOLUTION

Proper shipping name (ADN) PHOSPHORIC ACID SOLUTION

### 14.3 Transport hazard class(es)

ADR/RID Class Class 8: Corrosive substances

IMDG Class Class 8: Corrosive substances

ICAO Class/Division Class 8: Corrosive substances

### Transport Labels



### 14.4 Packing Group

ADR/RID Packing group III

IMDG Packing group III

ICAO Packing group III

### 14.5 Environmental Hazards

Environmentally hazardous substance: No

Marine pollutant: No

### 14.6 Special precautions for user

EmS-No (1), EmS No (2) F-A, S-B

Hazard Identification No (ADR/RID) 80

Tunnel restriction code (E)

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

Not relevant for a packaged product.

## SECTION 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 and mixtures.

#### Guidance

Workplace Exposure Limits EH40

### 15.2 Chemical safety assessment

No chemical safety assessment has been carried out as not applicable as this product is a mixture.

## SECTION 16. Other information

### Key literature references and sources for data

Miscellaneous Material Safety Data Sheets from manufacturers.  
GHS/CLP - Regulation (EC) No 1272/2008 classification, labelling & packaging of substances and mixtures.  
ECHA - C&L Inventory database.

### Revision Comments

<b>Revision Date</b>	24/10/2016
<b>Revision</b>	Revision of concentration ranges in section 3. No change to classification.
<b>SDS Status</b>	The Hazard statements listed below in this section 16 relate to the raw materials (ingredients) in the product (as listed in section 3) and NOT the finished product itself. For the Hazard Statements relating to this product see section 3.
<b>Hazard Statements in full</b>	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H319 Causes serious eye irritation.

### Abbreviations and acronyms

ADN	= European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR	= The European Agreement concerning the International Carriage of Dangerous Goods by Road
AISE	= The International Association for Soaps, Detergents and Maintenance Products
Bw	= Body weight
cc	= Closed cup
CLP	= Classification, Labelling and Packaging Regulation
DNEL	= Derived no effect limit
DPD	= Dangerous preparations directive
DRM	= Dermal
dw	= Dry weight
EC50	= Median effective concentration
EUH statement	= CLP - specific hazard statement
GPG	= Guinea Pig
HAM	= Hamster
HMN	= Human
IATA	= International Air Transport Association
IBC	= Intermediate Bulk Container
IMDG	= International Maritime Dangerous Goods
IVN	= Intravenous
LC50	= Median lethal concentration
LD50	= Median lethal dose
LogPow	= logarithm of the octanol/water partition coefficient
MAM	= Mammal
MARPOL 73/78	= International Convention for the Prevention of Pollution From Ships, 1973 as modified in 1978. (Marpol - marine pollution)
MUS	= Mouse
oc	= Open cup
OCC	= Ocular/corneal
PCP	= Physico-chemical properties
PBT	= Persistent, Bioaccumulative and Toxic
PGN	= Pigeon
PNEC	= Predicted No Effect Concentration
RID	= The Regulations concerning the International Carriage of Dangerous Goods by Rail
SCU	= Subcutaneous
vPvB	= Very Persistent and Very Bioaccumulative

#### Disclaimer

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, express or implied, is made as to the completeness or continuing accuracy of this information. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.