



## SAFETY DATA SHEET SYSTEM DESCALER

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

#### 1.1. Product identifier

Product name SYSTEM DESCALER  
Product number SYD002/01  
Internal identification C902

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

Identified uses Cleaning agent.

#### 1.3. Details of the supplier of the safety data sheet

Supplier ARROW SOLUTIONS  
RAWDON ROAD  
MOIRA  
SWADLINCOTE  
DERBYSHIRE  
DE12 6DA  
TEL: +44 (0)1283 221044  
FAX: +44 (0)1283 225731  
sales@arrowchem.com

#### 1.4. Emergency telephone number

Emergency telephone +44 (0) 777 8505 330

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

Physical hazards Met. Corr. 1 - H290  
Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318  
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) C;R35.

#### 2.2. Label elements

##### Pictogram



Signal word Danger

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

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**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.  
 Rinse skin with water/shower.  
 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.  
 P501 Dispose of contents/container in accordance with national regulations.

**Contains** PHOSPHORIC ACID ...%

**Detergent labelling** ≥ 30% phosphates, < 5% non-ionic surfactants

### 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

<b>PHOSPHORIC ACID ...%</b>	<b>30-60%</b>
CAS number: 7664-38-2	EC number: 231-633-2
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Skin Corr. 1B - H314	C;R34
Eye Dam. 1 - H318	

The Full Text for all R-Phrases and Hazard 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** Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.

**Skin contact** Wash skin thoroughly with soap and water. Get medical attention immediately.

**Eye contact** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

**General information** Chemical burns must be treated by a physician.

**Inhalation** Upper respiratory irritation.

**Ingestion** May cause chemical burns in mouth and throat.

**Skin contact** May cause serious chemical burns to the skin.

**Eye contact** Severe irritation, burning and tearing.

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

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media suitable for the surrounding fire.

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

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosphoric acid mist.

### 5.3. Advice for firefighters

**Protective actions during firefighting** No specific firefighting precautions known.

## SECTION 6: Accidental release measures

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

**Personal precautions** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Wash thoroughly after dealing with a spillage.

### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Absorb spillage to prevent material damage. Contain and absorb spillage with sand, earth or other non-combustible material. Neutralise spilled material with crushed limestone, slaked lime (calcium hydroxide), soda ash (sodium carbonate) or sodium bicarbonate. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

### 6.4. Reference to other sections

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Avoid spilling. Wash skin thoroughly after handling.

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

**Storage precautions** Store at temperatures between 0°C and 40°C.

**Storage class** Corrosive storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### PHOSPHORIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 1 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

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## PHOSPHORIC ACID ...% (CAS: 7664-38-2)

DNEL

Industry - ; Long term : 2.92

### 8.2. Exposure controls

#### Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Neoprene. Nitrile rubber. Polyethylene. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Hygiene measures

Wash promptly if skin becomes contaminated. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to Pale straw
Odour	Acidic.
pH	pH (concentrated solution): <2.0
Relative density	1.28 @ 20°C
Solubility(ies)	Completely soluble in water.

### 9.2. Other information

Other information	Not determined.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	Reactions with the following materials may generate heat: Strong alkalis.
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### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not determined.
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### 10.4. Conditions to avoid

**Conditions to avoid** Reactions with the following materials may generate heat: Alkalis. Amines.

### 10.5. Incompatible materials

**Materials to avoid** Strong alkalis.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosphoric acid mist.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Inhalation** May cause respiratory system irritation.

**Ingestion** May cause chemical burns in mouth and throat. May cause discomfort if swallowed.

**Skin contact** Causes severe burns.

**Eye contact** Severe irritation, burning and tearing.

### Toxicological information on ingredients.

#### PHOSPHORIC ACID ...%

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub>)** 2,740.0 mg/kg

##### Skin corrosion/irritation

**Animal data** Corrosive to skin.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Corrosive to skin. Corrosivity to eyes is assumed. No testing is needed.

##### Skin sensitisation

**Skin sensitisation** Not sensitising.

## SECTION 12: Ecological Information

**Ecotoxicity** Not regarded as dangerous for the environment.

### 12.1. Toxicity

**Acute toxicity - fish** Not determined.

### Ecological information on ingredients.

#### PHOSPHORIC ACID ...%

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 138 mg/l, Fish

**Acute toxicity - microorganisms** EC<sub>50</sub>, : 270 mg/l, Activated sludge

#### ALCOHOL ETHOXYLATED PROPOXYLATED

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**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >1 mg/l, Fish

### 12.2. Persistence and degradability

**Persistence and degradability** The product is expected to be biodegradable.

### Ecological information on ingredients.

#### ALCOHOL ETHOXYLATED PROPOXYLATED

**Persistence and degradability**

This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** The product is not bioaccumulating.

### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

### 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

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 1760

**UN No. (IMDG)** 1760

**UN No. (ICAO)** 1760

**UN No. (ADN)** 1760

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** CORROSIVE LIQUID, N.O.S. (phosphoric acid)

**Proper shipping name (IMDG)** CORROSIVE LIQUID, N.O.S. (phosphoric acid)

**Proper shipping name (ICAO)** CORROSIVE LIQUID, N.O.S. (phosphoric acid)

**Proper shipping name (ADN)** CORROSIVE LIQUID, N.O.S. (phosphoric acid)

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

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IMDG class	8
ICAO class/division	8
ADN class	8

### Transport labels



### 14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

### 14.6. Special precautions for user

Tunnel restriction code (E)

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

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

<b>National regulations</b>	Control of Substances Hazardous to Health Regulations 2002 (as amended).
<b>EU legislation</b>	Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
<b>Guidance</b>	Workplace Exposure Limits EH40.

### 15.2. Chemical safety assessment

## SECTION 16: Other information

<b>General information</b>	Only trained personnel should use this material.
<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	24/06/2015
<b>Revision</b>	3.0
<b>Supersedes date</b>	07/05/2014
<b>Risk phrases in full</b>	R34 Causes burns. R35 Causes severe burns.
<b>Hazard statements in full</b>	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

## SYSTEM DESCALER

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.