



# 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  
Internal Id 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  
EMERGENCY: +44 (0) 777 8505 330  
FAX: +44 (0)1283 225731  
sales@arrowchem.com

### 1.4. Emergency telephone number

+44 (0) 777 8505 330

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Met. Corr. 1 - H290  
Human health Skin Corr. 1A - H314  
Environment Not classified.

Classification (1999/45/EEC)

C;R35.

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

### 2.2. Label elements

Contains PHOSPHORIC ACID 41.9625%

Detergent Labelling:

>= 30% phosphates  
< 5% non-ionic surfactants

Label In Accordance With (EC) No. 1272/2008



# SYSTEM DESCALER

<b>Signal Word</b>	Danger	
<b>Hazard Statements</b>	H290 H314	May be corrosive to metals. Causes severe skin burns and eye damage.
<b>Precautionary Statements</b>	P234 P280 P303+361+353 P305+351+338 P309+311 P501	Keep only in original container. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. Dispose of contents/container in accordance with local regulations.

## 2.3. Other hazards

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

## 3.2. Mixtures

<b>PHOSPHORIC ACID ...%</b>	<b>30-60%</b>
<b>CAS-No.: 7664-38-2</b>	<b>EC No.: 231-633-2</b>
Classification (EC 1272/2008) Skin Corr. 1B - H314	Classification (67/548/EEC) C;R34
<b>ALCOHOL ETHOXYLATED PROPOXYLATED</b>	<b>1-5%</b>
<b>CAS-No.: 69013-18-9</b>	<b>EC No.:</b>
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.

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 into fresh air and keep at rest. Get medical attention if any discomfort continues.

### Ingestion

Rinse mouth thoroughly. DO NOT INDUCE VOMITING! Get medical attention.

### Skin contact

Rinse the skin immediately with lots of water. Get medical attention if irritation persists after washing.

### Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

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

### General information

Seek medical attention for all burns, regardless how minor they may seem.

### Inhalation

Upper respiratory irritation.

### Ingestion

May cause chemical burns in mouth and throat.

### Skin contact

May cause serious chemical burns to the skin.

# SYSTEM DESCALER

## Eye contact

Extreme irritation of eyes and mucous membranes, including burning and tearing.

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

Treat Symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

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

#### Hazardous combustion products

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosphoric acid mist.

### 5.3. Advice for firefighters

#### Special Fire Fighting Procedures

No specific fire fighting procedure given.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use protective gloves, goggles and suitable protective clothing. Avoid inhalation of spray mist and contact with skin and eyes.

### 6.2. Environmental precautions

Do not discharge onto the ground or into water courses.

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

Dam and absorb spillage with sand, sawdust or other absorbent. Neutralise with alkaline material (Lime, crushed limestone, sodium bicarbonate or soda ash). Flush area with water.

### 6.4. 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

Avoid spilling, skin and eye contact.

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

Store in closed original container at temperatures between 0°C and 40°C.

#### Storage Class

Corrosive storage.

### 7.3. 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
PHOSPHORIC ACID ...%	WEL		1 mg/m <sup>3</sup>		2 mg/m <sup>3</sup>	

WEL = Workplace Exposure Limit.

# SYSTEM DESCALER

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

DNEL

Industry

Long Term

2.92

## 8.2. Exposure controls

### Protective equipment



### Engineering measures

Provide adequate ventilation.

### Hand protection

Protective gloves must be used if there is a risk of direct contact or splash. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.

### Eye protection

Wear approved safety goggles.

### Other 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.
Solubility	Completely soluble in water
Relative density	1.28
pH-Value, Conc. Solution	<2.0

### 9.2. Other information

Not determined.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Exothermic reaction with: Strong alkalis.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

Not determined.

### 10.4. Conditions to avoid

Reacts with alkalis and amines generating excessive heat.

### 10.5. Incompatible materials

#### Materials To Avoid

Strong alkalis.

### 10.6. Hazardous decomposition products

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Phosphoric acid mist.

## SECTION 11: TOXICOLOGICAL INFORMATION

# SYSTEM DESCALER

## 11.1. Information on toxicological effects

### Skin Corrosion/Irritation:

Extreme pH.

≤ 2

Corrosive

### Serious eye damage/irritation:

Skin corrosive; corrosivity to eyes is assumed. No testing is needed.

### Inhalation

May cause irritation to the respiratory system.

### Ingestion

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

### Skin contact

Causes severe burns.

### Eye contact

Extreme irritation of eyes and mucous membranes, including burning and tearing.

### Toxicological information on ingredients.

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

### Acute toxicity:

Acute Toxicity (Dermal LD50)

2740 mg/kg

### Skin Corrosion/Irritation:

Corrosive to skin.

### Serious eye damage/irritation:

Skin corrosive; corrosivity to eyes is assumed. No testing is needed.

### Respiratory or skin sensitisation:

Not Sensitising.

#### ALCOHOL ETHOXYLATED PROPOXYLATED (CAS: 69013-18-9)

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

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

LC 50, 96 Hrs, Fish mg/l

138

Acute Toxicity - Microorganisms

EC50 270 mg/l Activated sludge

#### ALCOHOL ETHOXYLATED PROPOXYLATED (CAS: 69013-18-9)

LC 50, 96 Hrs, Fish mg/l

>1

## 12.2. Persistence and degradability

# SYSTEM DESCALER

## Degradability

The product is expected to be biodegradable.

### Ecological information on ingredients.

#### ALCOHOL ETHOXYLATED PROPOXYLATED (CAS: 69013-18-9)

## 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

Not Classified as PBT/vPvB by current EU criteria.

## 12.6. Other adverse effects

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN number

UN No. (ADR/RID/ADN)	1760
UN No. (IMDG)	1760
UN No. (ICAO)	1760

### 14.2. UN proper shipping name

Proper Shipping Name                      CORROSIVE LIQUID, N.O.S. (phosphoric acid)

### 14.3. Transport hazard class(es)

ADR/RID/ADN Class	8
ADR/RID/ADN Class	Class 8: Corrosive substances.
IMDG Class	8
ICAO Class/Division	8

### Transport Labels



### 14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II

# SYSTEM DESCALER

ICAO Packing group

II

## 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

## 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

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

#### **Statutory Instruments**

Control of Substances Hazardous to Health.

#### **Guidance Notes**

Workplace Exposure Limits EH40.

#### **EU Legislation**

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### 15.2. Chemical Safety Assessment

## SECTION 16: OTHER INFORMATION

#### **General information**

Only trained personnel should use this material.

**Revision Date** 07/05/2014

**Revision** 2.0

**Supersedes date** 02/01/2014

#### **Risk Phrases In Full**

R34 Causes burns.

R35 Causes severe burns.

#### **Hazard Statements In Full**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

#### 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 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.