

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product Identifier**

Product Form : Mixture  
Product Name : Powerflush Descaler XP-6  
Product Code : XP-3  
Type of Product : Acids

**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant identified uses**

Industrial/Professional Use Spec : Industrial  
For professional use only  
Use of the substance/mixture : Central heating system cleaner

**1.2.2 Uses advised against**

No additional information available

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

Expert Range  
Old Bank, The Triangle, Poulton,  
BS32 7LE Bristol – United Kingdom  
T: 0044 2036 273720 – F: 0044 8727 433720  
support@expertrange.co.uk – www.expertrange.co.uk

**1.4 Emergency telephone number**

Emergency number : 0044 2036 273720

**Section 2: Hazards Identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 : H315  
Eye Irrit. 2 : H319  
Full text of H-phrases : See section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36/38  
Full text of H-phrases : See Section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes serious eye irritation.

## 2.2 Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

: GHS07



Signal word (CLP)

: Warning

Hazardous ingredients

: Tetrasodium ethylene diamine tetraacetate; sodium nitrite

Hazard statements (CLP)

: H315 - Causes skin irritation  
H319 - Causes serious eye irritation

Precautionary statements (CLP)

: P264 - Wash hands thoroughly after handling  
P280 - Wear eye protection, protective gloves  
P302+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  
P362+P364 - Take off contaminated clothing and wash it before reuse

EUH phrases

: EUH210 – Safety data sheet available on request

## 2.3 Other Hazards

No additional information available

## Section 3: Composition/Information on Ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixture

Name	Product Identifier	%	Classification According to Directive 67/548/EEC	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric Acid ... %, Orthophosphoric Acid ... %	(CAS No) 7664-38-2 (EC no) 231-633-2 (EC index no) 015-011-00-6	20 - 30	C; R34 (10 =< C < 25) Xi; R36/38 (C >= 25) C; R34	Skin Corr. 1B, H314 (10 =< C < 25) Skin Irrit. 2, H315 (10 =< C < 25) Eye Irrit. 2, H319 (C >= 25) Skin Corr. 1B, H314
Citric Acid	(CAS No) 5949-29-1 (EC no) 201-069-1	10 - 20	Xi; R36	Eye Irrit. 2, H319

Full text of R- and H-phrases: see section 16

## Section 4: First Aid Measures

### 4.1 Description of first aid measures

First aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.  
(Show the label where possible.)

First aid measures after inhalation

: Assure fresh air breathing. Allow the victim to rest.

First aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

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

No additional information available.

### Section 5: Firefighting Measures

#### 5.1 Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

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

Hazardous decomposition products (In case of fire)	: Carbon monoxide. Carbon dioxide. Phosphorus oxides.
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#### 5.3 Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

### Section 6: Accidental Release Measures

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

##### 6.1.1 For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2 For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

#### 6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

- For containment : Stop leak without risks if possible.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Neutralise with dry sodium carbonate.

**6.4 Reference to other sections**

See Heading 8. Exposure controls and personal protection.

**Section 7: Handling and Storage****7.1 Precautions for safe handling**

- Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from Direct sunlight. Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids. Oxidising materials.
- Incompatible materials : Sources of ignition. Direct sunlight.

**7.3. Specific end use(s)**

No additional information available.

**SECTION 8: Exposure Controls/Personal Protection****8.1. Control parameters**

Phosphoric Acid ... %, Orthophosphoric Acid ... %		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (8 hours)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (15 minutes)

**8.2. Exposure controls**

- Personal protective equipment : Avoid all unnecessary exposure. Protective goggles. Gloves. Protective clothing.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin Protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.



Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and Chemical Properties

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

Physical state	: Liquid.
Appearance	: Red liquid.
Colour	: Red.
Odour	: Characteristic.
Odour threshold	: No data available.
pH	: No data available.
pH Solution	: No data available.
Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: Not applicable.
Freezing point	: No data available.
Boiling point	: ~100°C.
Flash point	: No data available.
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Non-flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: No data available.
Density	: 1,198 g/cm <sup>3</sup> .
Solubility	: Soluble in water.
Log Pow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

**9.2. Other information**

No additional information available.

**SECTION 10: Stability and Reactivity****10.1. Reactivity**

No additional information available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Not established.

**10.4. Conditions to avoid**

Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**

Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

Fume. Carbon monoxide. Carbon dioxide.

**SECTION 11: Toxicological Information****11.1. Information on toxicological effects**

Acute toxicity : Not classified

Citric acid (5949-29-1)	
LD50 oral mouse	5000 mg/kg

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)	
LD50 oral rat	1530 mg/kg

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified. Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Not classified. Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified. Based on available data, the classification criteria are not met.
Reproductive toxicity	: Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity: (Single exposure)	: Not classified. Based on available data, the classification criteria are not met.
Specific target organ toxicity (Repeated exposure)	: Not classified Based on available data, the classification criteria are not met.
Aspiration hazard	: Not classified. Based on available data, the classification criteria are not met.
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological Information

## 12.1. Toxicity

Citric acid (5949-29-1)	
LC50 Fishes 1	440 mg/l (48 hours)
EC50 Daphnia 1	1535 mg/l (24 hours)
NOEC Chronic Algae	425 mg/l

## 12.2. Persistence and degradability

Powerflush Descaler – XP6	
Persistence and degradability	Not established.

Citric acid (5949-29-1)	
Persistence and degradability	Biodegradable.

Phosphoric Acid ... %, Orthophosphoric Acid ... % (7664-38-2)	
Persistence and degradability	Not established.

## 12.3. Bioaccumulative potential

Powerflush Descaler – XP6	
Bioaccumulative potential	Not established.

Citric acid (5949-29-1)	
Log kow	-1,8 - -0,2
Bioaccumulative potential	Not expected to bioaccumulate due to the log kow (log kow < 4)

Phosphoric Acid ... %, Orthophosphoric Acid ... % (7664-38-2)	
Bioaccumulative potential	No bioaccumulation.

## 12.4. Mobility in soil

Phosphoric Acid ... %, Orthophosphoric Acid ... % (7664-38-2)	
Ecology - Soil	Product absorbs little onto the soil.

## 12.5. Results of PBT and vPvB assessment

Component	
Citric acid (5949-29-1)	PBT: not relevant – no registration required
Phosphoric Acid ... %, Orthophosphoric Acid ... % (7664-38-2)	PBT: not relevant – no registration required

## 12.6. Other adverse effects

Additional information	: Avoid release to the environment
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**SECTION 13: Disposal Considerations****13.1. Waste treatment methods**

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

**SECTION 14: Transport Information**

*In accordance with ADR / RID / IMDG / IATA*

**14.1. UN number**

UN Number (ADR) : 1760

**14.2. UN proper shipping name**

Proper Shipping Name (ADR) : CORROSIIVE LIQUID, N.O.S.

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : UN 1760 CORROSIVE LIQUID, N.O.S., 8, III, (E)

**14.3. Transport hazard class(es)**

Transport hazard class(es) (ADR) : 8

Danger labels (ADR) : 8



Transport hazard class(es) (IMDG) : Not applicable

Transport hazard class(es) (IATA) : Not applicable

Transport hazard class(es) (ADN) : Not applicable

Transport hazard class(es) (RID) : Not applicable

**14.4. Packing group**

Packing group (ADR) : III

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

**14.5. Environmental hazards**

Dangerous for the environment : No

Marine pollutant : No



Other information : No supplementary information available

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

Classification code (ADR) : C9

Special provision (ADR) : 274

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19

Mixed Portable tank and  
bulk container instructions (ADR) : T7

Mixed Portable tank and  
bulk container special provisions (ADR) : TP1, TP28

ADR tank codes (ADR) : L4BN

Vehicle for tank carriage : AT

Transport category (ADR) : 3

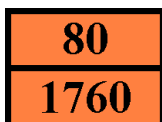
Special provisions for carriage  
Packages (ADR) : V12

Hazard identification number (Kemler No.) : 80

Orange plates :

EAC code : 2X

APP code : B



##### 14.6.2. Transport by sea

No data available.

##### 14.6.3. Air transport

No data available.

##### 14.6.4. Inland waterway transport

No data available.

##### 14.6.5. Rail transport

No data available.

#### 14.7. 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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions.

Powerflush Descaler is not on the REACH Candidate List.

Contains no REACH candidate substance.

Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

##### Germany

VwVwS Annex Reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to VwVwS, Annex 4).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other Information

Data sources : 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.

Other information : None.

Full text of R-, H- and EUH-phrases	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
R34	Causes burns
R36	Irritating to eyes
R36/38	Irritating to eyes and skin
C	Corrosive
Xi	Irritant

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*