



## Section 1: Identification of the Material and Supplier

**Product Name:** Kleer X

**Other Names:** Acidic detergent/sanitiser.

**Proper shipping name (ADG Code):** Phosphoric acid 47 % solution.

**Recommended use:** As an acid dairy detergent for milkstone removal.  
Use as directed on the product label.

**Supplier:** DASCO Pty. Ltd.,  
ABN: 14 004 581 113  
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081  
Tel: (03) 9459 7004 (business hours)  
Fax: (03) 9459 9200

**Emergency Phone Numbers:**

Transport/Fire Emergency: 000 (Emergency services)  
Medical Emergency: 131126 (Poisons Information Centre)

## Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Dangerous goods.

**Risk Phrases:** R: 34 Causes burns.

**Safety Phrases:** S: 1/2 Keep locked up and out of the reach of children.  
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## Section 3: Composition/Information on Ingredients

**Ingredients:**

Phosphoric acid	[7664-38-2]	30 - 60 %
Surfactant		< 10 %
Quaternary ammonium compound		< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %

## Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

Swallowed: If swallowed, do NOT induce vomiting.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Center or a doctor, or for at least 15 minutes.

Inhaled: Remove from exposure.

### First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower if handling industrial quantities.

### Advice to Doctor:

Product is a strong solution of phosphoric acid, containing low proportions of a surfactant and a quaternary ammonium compound. Causes burns. Risk of serious eye damage. If swallowed, vomiting should not have been induced because of risk of aspiration of acid froth into the lungs. Contact Poisons Information Centre.

### Aggravated medical conditions:

No data found.

## Section 5: Fire Fighting Measures

HAZCHEM Code: 2 R

Evacuate: No.

Extinguishant: Water fog or fine water spray.

Risk of violent reaction or explosion: No.

Products of combustion: Oxides of phosphorus, oxides of carbon, oxides of nitrogen, hydrogen chloride.

Protective Equipment: Full protective clothing including breathing apparatus and protective gloves.

## Section 6: Accidental Release Measures

### **Emergency Procedures:**

Contain.

### **For large spills:**

Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

### **For small spills:**

Spillages may be neutralised by the liberal application of soda ash. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable container and arrange removal by disposals company.

## Section 7: Handling and Storage

### **Precautions for safe handling:**

Avoid contact with skin and eyes.  
Keep away from alkalis, oxidising agents.

### **Conditions for safe storage:**

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bonded dangerous goods store. Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from alkalis, oxidising agents. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

### **Incompatibles:**

Alkalis, oxidising agents, active metals.

## Section 8: Exposure Controls/Personal Protection

### National Exposure Standards:

**ES-TWA:** Phosphoric acid 1 mg/m<sup>3</sup>

**ES-STEL:** Phosphoric acid 3 mg/m<sup>3</sup>

**ES-PEAK:** None assigned.

**Notations:** None.

**Biological Limit Values:** No data found.

### Engineering Controls:

Avoid using active metals (e.g. aluminium, zinc) as materials of construction.

Ensure adequate ventilation (same as outdoors) when using.

If handling industrial quantities, or if vapour/aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible, and at least below the TLV.

### Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing aerosols.

Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

#### Normal Use:

Eye/face protection

Gloves, rubber or plastic.

#### Industrial Quantities:

Face shield or safety glasses

Gloves, rubber or plastic

Plastic apron, sleeves and boots

Impervious overalls.

## Section 9: Physical and Chemical Properties

**Appearance:** Clear, colourless liquid.  
**Odour:** Mild detergent odour.  
**pH:** About 1 Very acid.

**Vapour Pressure:** No data.

**Vapour Density:** No data.

**Boiling Point:** > 100 °C

**Melting Point:** No data.

**Volatiles:** About 44 %

**Volatile Organic Compounds (VOC):** < 2 %

**Evaporation Rate:** No data.

**Solubilities:** Miscible with water in all proportions.

**Specific Gravity/Density:** 1.29 g/mL @ 20 °C

**Flash Point:** None.

**Flammable Limits:** None.

**Dust Explosion:** Not applicable.

**Auto-ignition Temperature:** No data.

### Other Information:

Very acidic mixture. Will react vigorously or violently with alkalis. Contact with carbonates and bicarbonates will generate carbon dioxide, a simple asphyxiant. May react with strong oxidising agents. Corrosive to many common metals. Contact with active metals (such as aluminium, zinc, galvanised iron) may generate hydrogen, a flammable gas. Slippery when spilled.

## Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** Incompatible materials.

**Incompatible Materials:** Alkalis, oxidising agents, active metals.

**Hazardous Decomposition Products:** Oxides of phosphorus, oxides of nitrogen, hydrogen chloride.

**Hazardous Reactions:** Will react vigorously or violently with alkalis. Contact with carbonates or bicarbonates will generate carbon dioxide. Contact with active metals may generate hydrogen.

## Section 11: Toxicological Information

### Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

<b>Acute:</b>	<b>Swallowed:</b>	May cause pain in the throat and stomach, abdominal cramps, a burning sensation, nausea, vomiting and intense thirst. May cause corrosion and permanent tissue destruction of the oesophagus and digestive tract. May cause haemorrhaging of the gastrointestinal tract. Large quantities may cause shock, clammy skin, weak and rapid pulse, shallow breathing, weakness, confusion, loss of consciousness, reduced urine output and death. An aspiration risk.
	<b>Skin:</b>	Severe skin irritant. May cause redness, pain, blisters and burns, cyanosis or pale skin colour. Mild exposure may cause skin rash.
	<b>Eyes:</b>	Corrosive. May cause serious eye damage. May cause chemical conjunctivitis and corneal damage. May cause redness, pain, blurred vision and severe deep burns.
	<b>Inhaled:</b>	Corrosive to lung tissues; 1 - 5 mg/m <sup>3</sup> of phosphoric acid will irritate the nose and throat, 4 - 11 mg/m <sup>3</sup> may cause coughing. Inhalation of vapour or aerosols may cause a burning sensation in the chest, cough, laboured breathing, shortness of breath, sore throat, loss of consciousness. Aspiration of froth into the lungs during swallowing or vomiting may cause chemical pneumonitis (inflammation of lung tissues) and pulmonary oedema (build-up of fluid in the lungs). Onset of symptoms may be delayed.
<b>Chronic:</b>		Repeated skin contact may cause irritation and burns. Repeated or prolonged exposure to phosphoric acid may affect the liver, blood and bone marrow.
<b>LD50:</b>	Phosphoric acid	1,530 mg/kg oral, rat. 2,740 mg/kg skin, rabbit.
<b>LC50:</b>	Phosphoric acid	> 850 mg/m <sup>3</sup> /1 hour, rat.
<b>LDLo:</b>	Phosphoric acid	220 mg/kg, man.

## Section 12: Ecological Information

<b>Ecotoxicity:</b>	Harmful to aquatic organisms.
<b>Persistence and degradability:</b>	The surfactant used in this product is not considered to be readily biodegradable according to AS 4351, part 2 test method.
<b>Mobility:</b>	Readily transported by water.
<b>Environmental Fate:</b>	No data.
<b>Bioaccumulative potential:</b>	No data.
<b>Other adverse environmental effects:</b>	Contains surfactant. Local concentrations will be harmful to aquatic organisms, including fish. Contains inorganic phosphate, will contribute to the development of algal blooms in natural waters.

## Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

**Disposal methods and containers:**

Avoid disposal to drains, natural waters or the environment.  
Do not use metal containers.

**Special precautions for landfill or incineration:**

Unsuitable for incineration.  
May not be suitable for some landfill sites.

## Section 14: Transport Information

<b>UN Number:</b>	UN 1805
<b>UN Proper shipping name:</b>	Phosphoric acid 47 % solution.
<b>Class and subsidiary risk:</b>	8 Corrosive.
<b>Packaging group:</b>	III
<b>Special precautions for user:</b>	Do not store or transport with dangerous goods of classes 1, 4.3, 5.1, 5.2, 6 (cyanides), 7, 8 (alkalis), foodstuffs and foodstuff empties.
<b>HAZCHEM Code:</b>	2 X
<b>Material for export:</b>	Regulated. Refer to IMO\IMDG and IATA\ICAO.

## Section 15: Regulatory Information

**Poisons (SUSDP):** Schedule 6  
*Phosphoric acid > 35 %.*

**Dangerous Goods:** Yes. UN 1805 8/III 2 X.

**Carcinogen:** **Australia** **IARC** **NTP** **RTECS**  
No. No. No. No.

**Agricultural and Veterinary Chemicals Act:**  
This product is registered with the Australian Pesticides and Veterinary Medicines Authority (**APVMA**).

**Australian Inventory of Chemical Substances (AICS):** Listed.

**Other National/International Regulations:** No data found.

## Section 16: Other information

**Date of MSDS preparation:** September 2009

### Abbreviations:

NOHSC - National Occupational Health and Safety Commission.  
ACGIH - American Conference of Governmental Industrial Hygienists.  
IARC - International Agency for Research on Cancer (France).  
NTP - National Toxicology Program (USA).  
RTECS - Registry of Toxic Effects of Chemical Substances.

### Literature references:

#### Available Sources of Data:

*National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.*  
*Australian Dangerous Goods Code.*  
*Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.*  
*Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.*  
*List of Designated Hazardous Substances [10005] - NOHSC.*  
*Merck Index - Merck Inc.*  
*Sax's Dangerous Properties of Industrial Materials - Lewis.*  
*Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.*  
*Handbook of Reactive Chemical Hazards - Bretherick.*  
*Hawley's Condensed Chemical Dictionary - Wiley Interscience.*  
*AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.*