

# SAFETY DATA SHEET



## DESCALER

APPLIED PRODUCTS AUSTRALIA PTY LTD

Catalogue number: AP280.05

Version No: 3.2

Issue date: 16/06/2021

Safety Data sheet according to WHS and ADG requirements

### SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### Product Identifier

Product name	DESCALER
Product code	AP280
Pack sizes	5L
Proper shipping name	PHOSPHORIC ACID, SOLUTION

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

Relevant identified uses	Descaling of Dishwashers, Bain Marries and Urns
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#### Details of the supplier of the safety data sheet

Registered company name	APPLIED PRODUCTS AUSTRALIA PTY LTD
Address	11 Gamma Close, Beresfield 2322 NSW Australia
Telephone	(02) 4966 5516
Website	www.actichem.com.au
Email	info@actichem.com.au

#### Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	6
GHS Classification	Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1B, Metal Corrosion Category 1 <i>Classification drawn from HCIS and from ECHA C&amp;L Inventory</i>

#### Label elements

GHS label elements	
SIGNAL WORD	<b>DANGER</b>

#### Hazard statement(s)

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

#### Precautionary statement(s) Prevention

P260	Do not breathe fumes / gas / mist / vapours / spray.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P264	Wash contaminated skin thoroughly after handling
P234	Keep only in original container.

**Precautionary statement(s) Response**

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303+P310+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.

**Precautionary statement(s) Storage**

P405	Store locked up
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**Precautionary statement(s) Disposal**

P501	Dispose of contents/container in accordance with local regulations.
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
7664-38-2	30-60	phosphoric acid

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes: Obtain medical advice / attention without delay. Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If required, transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</p>
<b>Skin Contact</b>	<p>If skin or hair contact occurs: Obtain medical advice / attention without delay. Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. If required, transport to hospital, or doctor.</p>
<b>Inhalation</b>	<p>If fumes or combustion products are inhaled remove from contaminated area. Obtain medical advice / attention without delay. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. If required, transport to hospital, or doctor. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. <b>This must definitely be left to a doctor or person authorised by him/her.</b></p>
<b>Ingestion</b>	<p>For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. <b>If swallowed do NOT induce vomiting.</b> If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</p>

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**INGESTION**

Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.

**DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.**

Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.

Charcoal has no place in acid management.

**SKIN:**

Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping..

**EYE:**

Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes. **DO NOT use neutralising agents or any other additives.** Several litres of saline are required.

**SECTION 5 FIREFIGHTING MEASURES****Extinguishing media**

<b>Extinguishing media</b>	Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide.
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**Special hazards arising from the substrate or mixture**

<b>Fire incompatibility</b>	None known
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**Advice for firefighters**

<b>Fire Fighting</b>	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding area. <b>Do not approach containers suspected to be hot.</b> Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
<b>Fire/Explosion Hazard</b>	Non-combustible. Not considered to be a significant fire risk. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers. May emit corrosive, poisonous fumes. May emit acrid smoke. Decomposition may produce toxic fumes of: phosphorus oxides (POx)
<b>HAZCHEM</b>	2R

**SECTION 6 ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

<b>Minor Spills</b>	Check regularly for spills and leaks. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
<b>Major Spills</b>	Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.
<b>PPE</b>	Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE****Precautions for safe handling**

<b>Safe handling</b>	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. <b>WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.</b> When handling, <b>DO NOT eat, drink or smoke.</b> Keep containers securely sealed when not in use. Always wash hands with soap and water after handling.
<b>Other information</b>	Store in original containers. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

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


<b>Suitable container</b>	<b>DO NOT REPACK - Store only in original packaging.</b>
<b>Storage incompatibility</b>	Store away from strong alkalis and metals.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	phosphoric acid	Phosphoric acid	1 mg/m3	3 mg/m3	Not Available	Not Available

EMERGENCY LIMITS				
Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
phosphoric acid	Phosphoric acid	Not Available	Not Available	Not Available
Ingredient	Original IDLH	Revised IDLH		
phosphoric acid	10,000 mg/m3	1,000 mg/m3		

## Exposure controls

<b>Appropriate engineering controls</b>	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
<b>Personal protection</b>	
<b>Eye and face protection</b>	Safety glasses with unperforated side shields OR Chemical goggles. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly.
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Elbow length Neoprene gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	Overalls. PVC Apron. Eyewash unit. Ensure there is ready access to a safety shower.
<b>Thermal hazards</b>	Not Available

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

<b>Appearance</b>	Green liquid		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	1.2
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Applicable
<b>pH (as supplied)</b>	1	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Applicable	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Applicable	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Applicable	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Contact with alkaline material liberates heat
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

<b>Inhaled</b>	The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence.
<b>Ingestion</b>	Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.
<b>Skin Contact</b>	Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely.
<b>Chronic</b>	Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs.

**Toxicological effects of ingredients**

<b>Phosphoric acid</b>	Acute toxicity	Oral LD50 (rat): 1250 mg/kg Dermal LD50 (rabbit): 2740 mg/kg
	Skin corrosion/irritation	Corrosive to skin - may cause skin burns
	Eye damage/irritation	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
	Respiratory/skin sensitization	No data available
	Germ cell mutagenicity	No data available
	Carcinogenicity	No data available
	Reproductive toxicity	No data available
	STOT (single exposure)	No data available
	STOT (repeated exposure)	Prolonged exposures can cause necrosis of nasal passages and oedema of lungs
	Aspiration toxicity	No data available

**SECTION 12 ECOLOGICAL INFORMATION****Toxicity**

	Endpoint	Duration (Hr.)	Species	Value
<b>Phosphoric acid</b>	LC50	96	Fish	75.1mg/L
	EC50	48	Crustacea	>5.62mg/L
	EC50	72	Algae or other aquatic plants	15.29mg/L
	EC10	72	Algae or other aquatic plants	37.7mg/L
	NOEC	72	Algae or other aquatic plants	3.71mg/L

Extracted from Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
phosphoric acid	HIGH	HIGH

**Bio accumulative potential**

Ingredient	Bioaccumulation
phosphoric acid	LOW (LogKOW = -0.7699)

**Mobility in soil**

Ingredient	Mobility
phosphoric acid	HIGH (KOC = 1)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product / packaging disposal</b>	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations
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**SECTION 14 TRANSPORT INFORMATION****Labels Required**

<b>Marine Pollutant</b>	NO
<b>HAZCHEM</b>	2R

Land transport (ADG) – Not applicable – NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS WHEN IN PACK SIZES OF 5L OR LESS

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**SECTION 15 REGULATORY INFORMATION**

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**Safety, health and environmental regulations / legislation specific for the substance or mixture****PHOSPHORIC ACID (7664-38-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
Australian Inventory of Industrial Chemicals (AIIC)

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**SECTION 16 OTHER INFORMATION**

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**Revision Schedule**

<b>Revision Date</b>	16/06/2021
<b>Initial Date</b>	08/12/2016

**SDS Version Summary**

Version	Issue Date	Sections Updated
3.1	12/11/2020	Sections 2,5,12,15,16 have been updated or corrected
3.2	16/06/2021	Section 14

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, AICIS and HCIS Australia

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**Definitions and abbreviations**

PC-TWA;	Permissible Concentration-Time Weighted Average
PC-STEL;	Permissible Concentration-Short Term Exposure Limit
IARC:	International Agency for Research on Cancer
ACGIH:	American Conference of Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit Of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

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**End of SDS**