



1. Identification

Product identifier	Descaling Liquid	
Recommended use of the chemical and restrictions on use	Designed for use in automatic dishwashing machines. This product has been formulated to clean and descale the interior surfaces of automatic dishwashing machines.	
Details of manufacturer or importer	Company Name	Chemwell Pty Ltd ABN 94 155 544 040
	Address	3 Clive St, Springvale, VIC, 3171
	Phone	03 9558 5678
	Email	chemwell@chemwell.com.au
	Website	www.chemwell.com.au
Emergency phone number	Police, Fire & Ambulance	000
	Poisons Information Centre	13 11 26

2. Hazard(s) Identification

This material is hazardous according to criteria of Safe Work Australia.

Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

Classification of the hazardous chemical	Acute Toxicity, Inhalation 2 Acute Toxicity, Oral 5 Corrosive to metals 1 Eye Damage/Irritation 1 Skin Corrosion/Irritation 1
Hazard symbols	 
Signal word(s)	Danger
Hazard statement(s)	H290 - May be corrosive to metals H303 - May be harmful if swallowed H314 - Causes severe skin burns and eye damage H330 - Fatal if inhaled

Precautionary statement(s)	Prevention	<p>P234 - Keep only in original container.</p> <p>P260 - Do not breathe dust/fumes/gas/mist/vapours/spray.</p> <p>P264 - Wash thoroughly after handling.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>P284 - [In case of inadequate ventilation] wear respiratory protection.</p>
	Response	<p>P312 - Call a POISON CENTER or doctor if you feel unwell.</p> <p>P304+340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P310 - Immediately call a POISON CENTER or doctor.</p> <p>P320 - Specific treatment is urgent (see ... on this label).</p> <p>P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303+361+353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P363 - Wash contaminated clothing before reuse.</p> <p>P321 - Specific treatment (see ... on this label).</p> <p>P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.</p>
	Storage	<p>P405 - Store locked up.</p> <p>P406 - Store in a corrosive resistant container with a resistant inner liner.</p>
	Disposal	<p>P501 - Dispose of contents/container to in accordance with local regulation.</p>

3. Composition and Information on Ingredients

Name	Proportion
Phosphoric Acid	10-30%
Hydrochloric Acid 30-33%	10-30%

Disclosure of ingredient names is not required by the WHS Regulations for those ingredients that meet only physicochemical and/or environmental hazard classifications, or for nonhazardous ingredients.

There is no requirement to disclose the identity of ingredients for the following GHS health hazard categories because they fall outside the scope of the WHS Regulations:

- Acute toxicity – Category 5 (oral, dermal and inhalation)
- Skin; corrosion / irritation – Category 3
- Serious eye damage / eye irritation – Category 2B
- Aspiration hazard – Category 2
- Aquatic toxicity (all categories)

- Flammable gas – Category 2
- Ozone depletion.

4. First Aid Measures

Swallowed	Immediately rinse mouth out thoroughly with water and give water to drink. DO NOT induce vomiting. Seek medical advice.
Eye	Immediately irrigate eyes with large amounts of water for at least 15 minutes with eyelids held open. Take care not to rinse contaminated water into the non-affected eye. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. Seek medical advice.
Skin	Immediately wash affected area with large amounts of water. Remove any contaminated clothing and wash before re-use. Seek medical advice if pain or irritation persists.
Inhaled	For all but minor symptoms seek medical advice. Not considered a normal feature of use.
First Aid Facilities	Standard first aid facilities.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.

5. Fire Fighting Measures

Suitable extinguishing equipment	Use water spray, alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards arising from the chemical	<p>During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Hazardous products of combustion for each ingredient are:</p> <p>Phosphoric Acid: Hazardous decomposition products may include Phosphine, oxides of phosphorus, and hydrogen gas.</p> <p>Hydrochloric Acid 30-33%: HCL can liberate highly flammable hydrogen gas when in contact with certain metals.</p>
Special protective precautions for fire fighters	<p>Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant section.</p> <p>Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.</p> <p>HazChem (EAC): 2RE</p>

6. Accidental Release Measures

<p>Personal precautions, protective equipment and emergency procedures</p>	<p>Personnel involved in the clean-up should wear protective clothing as listed in section 8. Use clean, non-sparking tools and equipment. Avoid breathing vapours and contact with skin and eyes. Remove contaminated clothing and wash before reuse.</p> <p>Eliminate all sources of ignition. Increase ventilation.</p> <p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Clean up all spills immediately. Clear area of all unnecessary personnel.</p>
<p>Environmental precautions</p>	<p>Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.</p>
<p>Methods and materials for containment and cleaning up</p>	<p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. This may involve tipping container on its side. Clean up all spills immediately. Clear area of all unnecessary personnel. If safe to do so repack leaking container into new container.</p> <p>Place inert, absorbent, non-combustible material onto spillage. Wipe up. Place in a suitable, labelled container for waste disposal.</p>

7. Handling and Storage

<p>Handling</p>	<p>Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Check Section 8 for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the counteracting workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
<p>Storage</p>	<p>Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Containers should be protected against any form of physical damage indeterminate goodness wellbeing always. Have appropriate fire extinguishers available in and near storage area. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10.</p>

8. Exposure Controls and Personal Protection

<p>Exposure standards</p>	<p>No value assigned for this specific material by Safe Work Australia. However, Exposure Standard(s) for ingredient(s) are:</p>
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	<p>Phosphoric Acid: The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC).</p> <p>Component List Value Type Phosphoric Acid ACGIH 1 mg/m³ TWA Phosphoric Acid ACGIH 3 mg/m³ STEL</p> <p>Hydrochloric Acid 30-33%: No Data Available</p>
Biological limits	<p>Biological limits for ingredient(s) are:</p> <p>Phosphoric Acid: No information available on biological limit values for this product.</p> <p>Hydrochloric Acid 30-33%: No information available on biological limit values for this product.</p>
Engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
Personal protective equipment (PPE)	<p>Safety glasses with side shields. Chemical protective gloves.</p>

9. Physical and Chemical Properties

Appearance (physical state, colour etc.)	A clear liquid
Odour	Not specified
Odour threshold	Not specified
pH	0.1-0.2
Melting point/freezing point	Not specified
Initial boiling point and boiling range	Not specified
Flash point	Not flammable
Evaporation rate	Not specified
Flammability (solid, gas)	Not specified
Upper/lower flammability or explosive limits	Not specified

Rejonasus Factor	Not specified
Vapour pressure	Not specified
Vapour density	Not specified
Relative density	Not specified
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not specified
Auto-ignition temperature	Not specified
Decomposition temperature	Not specified
Viscosity	Not specified

10. Stability and Reactivity

Reactivity	Will react with compounds that contain sodium hypochlorite/bleach to create toxic gas. Reacts exothermically with alkalis.
Chemical stability	Stable under normal ambient storage and handling conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid	No data available.
Incompatible materials	No data available.
Hazardous decomposition products	See section 5.

11. Toxicological Information

Acute Toxicity, Dermal	Not Applicable
Acute Toxicity, Dusts And Mists	Not Applicable
Acute Toxicity, Gases	Not Applicable
Acute Toxicity, Inhalation	Category 2
Acute Toxicity, Oral	Category 5
Acute Toxicity, Vapours	Not Applicable
Skin Corrosion/Irritation	Category 1
Eye Damage/Irritation	Category 1
Respiratory Sensitization	Not Applicable
Skin Sensitization	Not Applicable

Germ Cell Mutagens	Not Applicable
Carcinogenicity	Not Applicable
Reproductive Toxicity	Not Applicable
Specific Target Organ Toxicity RE	Not Applicable
Specific Target Organ Toxicity SE	Not Applicable
Aspiration Hazard	Not Applicable

Toxicological Information for Phosphoric Acid

Acute toxicity Oral LD50 Rat : 1530mg/Kg

Dermal LD50 Rabbit: 2740mg/Kg

Eye Causes burns. Corrosive. Causes tissue destruction, permanent damage to the cornea, blindness.

Ingestion Causes burns. May be harmful by ingestion. Can cause nausea, diarrhoea, corrosion, burns to mouth and oesophagus, abdominal pain, chest pain, shortness of breath, seizures, and death.

Inhalation Inhalation may result in spasm, inflammation and oedema of the larynx and bronchi, chemical phenomenon, and pulmonary oedema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. May be harmful by inhalation. Mists may cause lung irritation, shortness of breath, fluid in lungs.

Skin Causes burns. Causes irritation, burns.

Sensitization No data available.

Mutagenicity This material is not considered a mutagen.

Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive No reproductive effects have been identified for this material.

Teratogenicity No data available.

STOT - single exposure Bone marrow. Blood. Liver.

STOT - repeated exposure Avoid prolonged or repeated exposure.

Aspiration Not known.

Toxicological Information for Hydrochloric Acid 30-33%

General Information Inhalation , Rat LC50 : 4.2 - 4.7 mg/l/1h

Chronic

Other Substance accumulation, in the human body may occur and may casue some concern following repeated or long term occupational exposure. Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and or ulceration of the mouth lining.

EyeIrritant The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

Ingestion Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophugus. Immediate pain and difficulties in swallowing and speaking may also be evident.

Inhalation Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.

Skin Irritant The material can produce chemical burns following direct contact with the skin. 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.

Carcinogen Category No Data Available

12. Ecological Information

Acute Aquatic Toxicity	Not Applicable
Chronic Aquatic Toxicity	Not Applicable

Ecological Information for Water

None specified.

Ecological Information for Phosphoric Acid

Acidic, nutrient for undesirable algae. While acidity may be reduced by natural water hardness minerals, the phosphate may persist indefinitely. Eco toxicity value: TLm mosquito fish 138 mg/L/24-96 hr in turbid water at 22-24°C. Bioconcentration: none. Product causes a strong drop of the pH-value of water and soil. Product causes unwanted growth of algae. Acute Toxicity – Algae: LC50 (Fish, 96h): 138 mg/l

Ecological Information for Hydrochloric Acid 30-33%

Ecotoxicity ECOTOXICITY DATA FOR HYDROCHLORIC ACID:

LC50 Mosquito fish (female) 282 mg/L/24hr

LC50 Shore Crab 240 mg/L/48hr

LC50 Sand shrimp 260 mg/L/48hr

Persistence/Degradability Persistence is unlikely based on information available.

Mobility No information available

Environmental Fate Avoid contaminating waterways. The product is highly acidic. If large spills occurred a water pH drop could be responsible for an environmental effect on aquatic organisms.

Bioaccumulation Potential No information available

Environmental Impact No Data Available

13. Disposal considerations

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

14. Transport Information

Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

UN Number	1760
Proper shipping name or Technical Name	Corrosive liquids, n.o.s.
Transport hazard class	8 2.3
Packing Group	I
Environmental hazards for Transport Purposes	Not classified as having an acute aquatic toxicity.
UFAC Code	TANZ 9DD1
Special Precautions for user	None specified
Additional Information	None specified
Hazchem or Emergency Action Code	2RE

15. Regulatory Information

No information in this section.

16. Other information

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