


1. Identification

Product identifier	Auto Dishwashing Machine Powder	
Recommended use of the chemical and restrictions on use	A highly alkaline, chlorinated product designed for use in domestic and commercial dishwashing machines. It will leave dishes and cutlery sparkling clean and streak free, whilst eliminating any odours from the dishwashing machine. This product should be used in conjunction with a rinse aid agent.	
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 Aquatic Toxicity 3 Chronic Aquatic Toxicity 3 Eye Damage/Irritation 1 Skin Corrosion/Irritation 1 Specific Target Organ Toxicity SE 3
Hazard symbols	
Signal word(s)	Danger
Hazard statement(s)	H314 - Causes severe skin burns and eye damage H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness H412 - Harmful to aquatic life with long-lasting effects

Precautionary statement(s)	Prevention	<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>P261 - Avoid breathing dust/fumes/gas/mist/vapours/spray.</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>P273 - Avoid release to the environment.</p>
	Response	<p>P304+340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 - Call a POISON CENTER or doctor if you feel unwell.</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>P310 - Immediately call a POISON CENTER or doctor.</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	P405 - Store locked up.
	Disposal	P501 - Dispose of contents/container to in accordance with local regulation.

3. Composition and Information on Ingredients

Name	Proportion
Sodium Carbonate (Dense)	30-60%
Sodium Metasilicate Pentahydrate	10-30%
Trisodium Phosphate	<10%
Fatty Alcohol Alkoxylate	<10%
Sodium Dichloroisocyanuric Acid Anhydrous	<10%

Disclosure of ingredients is only required if an ingredient causes the classification of the chemical to include a hazard class and hazard category in the following list:

- Acute toxicity (oral, dermal and inhalation) – Category 1 to 4
- Respiratory sensitiser – Category 1
- Skin sensitiser – Category 1
- Mutagenicity – Category 1 or 2
- Carcinogenicity – Category 1 or 2
- Toxic to reproduction – Category 1 or 2

- Target organ toxicity (single exposure) – Category 1 or 2
- Target organ toxicity (repeat exposure) – Category 1 or 2
- Aspiration hazards – Category 1
- Skin corrosion or irritation – Category 1 or 2
- Serious eye damage or eye irritation – Category 1 or 2A

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>Ingredient 0) Carbon oxides, Sodium oxides.</p> <p>Ingredient 4) No fire decomposition products are expected from this product at temperatures normally achieved in a fire.</p> <p>Ingredient 5) Sodium and phosphorus oxides may form when heated to decomposition.</p> <p>Ingredient 6) On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.</p> <p>Ingredient 7) Hydrogen chloride, nitrogen dioxides, carbon monoxide, irritating and toxic fumes and gasses, carbon dioxide, nitrogen.</p>
Special protective equipment and	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

precautions for fire fighters	<p>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): 2X</p>
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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	<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>
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	<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

Handling	<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 counteractingly workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
Storage	<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> <p>Ingredient 0) Dusts not otherwise classified: 8hr TWA = 10 mg/m3</p> <p>Ingredient 4) Exposure limits have not been established by SWA for this product.</p> <p>Ingredient 5) AIHA Workplace Environmental Exposure Limits: 5mg/m3 (15 minute STEL)</p> <p>Ingredient 6) No exposure standards have been entered for this product.</p> <p>Ingredient 7) No Data Available</p>
<p>Biological limits</p>	<p>Biological limits for ingredient(s) are:</p> <p>Ingredient 0) None specified.</p> <p>Ingredient 4) None specified.</p> <p>Ingredient 5) No biological limit values have been entered for this product.</p> <p>Ingredient 6) No biological limit values have been entered for this product.</p> <p>Ingredient 7) No information available on biological limit values for this product.</p>
<p>Engineering controls</p>	<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</p>

	selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protective equipment (PPE)	Safety glasses with side shields. Chemical protective gloves.

9. Physical and Chemical Properties

Appearance (physical state, colour etc.)	White, free-flowing powder
Odour	Slight chlorine odour
Odour threshold	Not specified
pH	11.5-12.5
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	Reacts exothermically with acids.
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.
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11. Toxicological Information

Acute Toxicity, Dermal	Not Applicable
Acute Toxicity, Dusts And Mists	Not Applicable
Acute Toxicity, Gases	Not Applicable
Acute Toxicity, Inhalation	Not Applicable
Acute Toxicity, Oral	Not Applicable
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 Sodium Carbonate (Dense)

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.

Eye contact: An eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Breathing in dust may result in respiratory irritation. Acute toxicity Oral LD50 (rat): 4090 mg/kg

Serious eye damage/irritation: Moderate irritant (rabbit).

Chronic effects: Not listed as carcinogenic according to IARC.

Toxicological Information for Sodium Metasilicate Pentahydrate

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.

Ingredient Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

Toxicological Information for Trisodium Phosphate

Acute toxicity Oral LD50 Rat: 7400 mg/kg (Trisodium Phosphate Dodecahydrate)

Skin Causes irritation to skin. Symptoms include redness, itching and pain. Extent of damage depends on duration of contact. More serious effect may occur if the skin is moist. Aqueous, high alkaline solutions may produce caustic burns.

Eye Causes irritation to eyes, may be severe with possible corneal damage. Aqueous, highly alkaline solutions may produce caustic burns.

Inhalation Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. Behaves as a moderately strong alkali: intense exposure may result in the destruction of mucous membranes. May cause asthmatic bronchitis, chemical pneumonitis or pulmonary oedema.

Ingestion Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhoea. May cause mild burning of mouth, throat and stomach. Its alkaline nature may injure the oesophagus and digestive tract. Aqueous, highly alkaline solutions may produce caustic burns.

Sensitization Not determined.

Mutagenicity Not mutagenic in Ames Test

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.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure No data available.

Aspiration No data available.

Toxicological Information for Fatty Alcohol Alkoxylate

Acute toxicity Target Organs: gastrointestinal system, eyes, skin.

Oral, rat: LD50 = 1350 mg/kg

Dermal, rat: LD50 = 2000 mg/kg

Eye Causes severe eye irritation.

Ingestion Harmful if swallowed.

Inhalation Inhalation of mist may cause irritation.

Skin May cause slight irritation.

Sensitization No data available.

Mutagenicity No evidence of mutagenic effects.

Carcinogenicity No evidence of carcinogenic effects.

Reproductive No evidence of reproductive effects.

STOT - single exposure Not expected to cause organ effects from single exposure. Ingestion of large amount may cause gastrointestinal disturbances.

STOT - repeated exposure Repeated exposure may cause skin dryness and cracking. Repeated or prolonged exposure to irritants may produce conjunctivitis and severe skin irritation, producing a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.

Aspiration The product is not expected to be an aspiration hazard.

Toxicological Information for Sodium Dichloroisocyanuric Acid Anhydrous

General Information

LD50 Oral - Rat - 1,420 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Acute pulmonary edema. Liver:Other changes

Developmental Toxicity - Mouse - Oral Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical

Developmental Toxicity - Mouse - Oral Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Physical. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Eyelrritant Causes severe eye burns.

Ingestion Harmful if swallowed.

Inhalation Irritating to respiratory system.

SkinIrritant Causes severe skin burns.

Carcinogen Category No Data Available

12. Ecological Information

Acute Aquatic Toxicity	Category 3
Chronic Aquatic Toxicity	Category 3

Ecological Information for Ingredient 1

Ecotoxicity Avoid contaminating waterways.

Ecological Information for Ingredient 2

Ecotoxicity A maximum value of 412 mg/l ensures the protection of all aquatic life.

Source: Water Research Centre - September 1990

96 hour LC 50 (Fish) 6750 mg/l

48 hour EC 50 (Daphnia) 2024 mg/l

72 hour IC 50 (Algae) 3014 mg/l

Daphnia Sub acute 1062 mg/l

Fish Subacute 433 mg/l

BOD 5 day 0 mg/l

COD 0 mg/l

Earthworm Toxicity 1000 hg/cm²

Persistence/Degradability No information available

Mobility No information available

Environmental Fate Avoid contaminating waterways.

Bioaccumulation Potential No information available

Environmental Impact No Data Available

Ecological Information for Ingredient 3

Ecotoxicity LC50 - Gambusia affinis (Mosquito fish) - 120 mg/l - 96 h

LC50 - Lepomis macrochirus - 4,380 mg/l - 96 h

EC50 - Daphnia magna (Water flea) - 2,564 mg/l - 48 h

This chemical is not expected to cause oxygen depletion in aquatic systems. It has a low potential to affect the aquatic organisms and is expected to have a low potential to affect secondary waste treatment microorganisms.

This chemical is not likely to bioconcentrate.

Persistence/Degradability The methods for determining biodegradability are not applicable to inorganic substances.

Mobility Soluble in water.

Environmental Fate Avoid contaminating waterways, drains and sewers.

Bioaccumulation Potential Sodium sulfate may persist indefinitely in the environment, but is not likely to show bioaccumulation or food chain contamination effects. If diluted with water, this chemical released directly or indirectly into the environment is not expected to have significant impact on the environment.

Environmental Impact No Data Available

Ecological Information for Ingredient 4

Toxicity

Toxicity to bacteria: EC50 >1000 mg/l. Exposure period: 48 hours. Source: Active sludge. Method: OECD 209.

Source: Hoechst study.

Persistence and degradability

Not applicable to inorganic compounds.

Bio accumulative/ Bioconcentration potential

No information available.

Mobility in soil

No data available.

Other adverse effects

Environmental fate: While the alkalinity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems. Inorganic compounds in contact with the soil, subsurface or surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually in the form of calcium or magnesium. The resultant compounds are insoluble in water and become part of the soil or sediment.

Ecological Information for Ingredient 5

Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities. However, until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme pH.

Ecological Information for Ingredient 6

Toxicity

Aquatic toxicity - fish: LCO - Leuciscus idus (Golden orfe) - 2,400 mg/l - 48 h

Aquatic toxicity - crustacean: Not determined

Aquatic toxicity - algae: Not determined

Persistence and degradability

Not available.

Bio accumulative potential

Not determined.

Mobility in soil

Not determined.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Other adverse effects

No data available.

Ecological Information for Ingredient 7**Toxicity**

Expert Judgement: Classified 9.1A by analogy to C12-15 EO 2-10 toxicity <1mg/l (CESIO Surfactant Classification)

Persistence and degradability

BOD: Not available

COD: Not available

Rapidly Degradable: Not determined

Bioaccumulative potential

Bioaccumulative: No

Mobility in soil

No data available, however product is water soluble.

Other adverse effects

Environmental fate: Do NOT allow product to enter waterways, drains or sewers.

This material and its containers must be disposed of hazardous waste.

Ecological Information for Ingredient 8

Ecotoxicity Very toxic to aquatic organisms. This material and its container must be disposed of as hazardous waste.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

LC50 96 hours, fish, mg/l (Lepomis machrochirus): 0.515

EC50 48 hours, Daphnia, mg/l: 0.0058

Persistence/Degradability Degradability: >80 %. The product is expected to be easily biodegradable

Mobility Miscible in water.

Environmental Fate Do NOT let product reach waterways, drains and sewers. Very Toxic to aquatic organisms.

Bioaccumulation Potential Will not bio-accumulate.

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	3262
Proper shipping name or Technical Name	Corrosive solid, basic, inorganic, n.o.s.
Transport hazard class	8
Packing Group	I
Environmental hazards for Transport Purposes	Classified as having an acute aquatic toxicity.
UFAC Code	TANZ 283D
Special Precautions for user	None specified
Additional Information	None specified
Hazchem or Emergency Action Code	2X

15. Regulatory Information

No information in this section.

16. Other information

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