



SAFETY DATA SHEET

Product Name: AUTODISHWASH ECONOMY

Date of Issue: DEC 2016

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SECTION 1 – STATEMENT OF CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	AUTODISHWASH ECONOMY LIQUID		
SUPPLIER:	ECOCLEAN UTILITY AGENCIES PTY LTD		
ADDRESS:	PO Box 6224 YATALA DC 4207		
TELEPHONE:	(07) 5549 3622	FAX:	(07) 5549 3666
EMERGENCY PHONE:	13 1126 in Australia.	ABN:	72 135 037 160
Substance:	water based liquid	Product Use:	Alkaline bleach cleaner
Creation Date:	Dec 2016	Revision Date:	Dec 2021

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	S6 (POTASSIUM HYDROXIDE)
Dangerous Goods	CLASS 8 CORROSIVE
GHS Classification	Skin Corrosion/Irritation category 1A Serious Eye Damage/Irritation Category 1 Corrosive to Metals category 1

Label elements

GHS label pictograms	
Signal word	DANGER

Hazard statement(s)

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H290	May be corrosive to metals.
AUH031	Contact with acids liberates toxic gas.

Precautionary statement(s): General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

Precautionary statement(s): Prevention

P234	Keep only in original container.
P260	Do not breathe mists.
P264	Wash hands/skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s): Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



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P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see First Aid Measures on Safety Data Sheet).
P390	Absorb spillage to prevent material damage.
Precautionary statement(s): Storage	
P405	Store locked up.
P406	Store in corrosive resistant/...container with a resistant inner liner.
Precautionary statement(s): Disposal	
P501	Dispose of contents/ container in accordance with local regulations.
Note	
IMPORTANT	This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied. When diluted to 1:50 or greater they no longer apply. However, good hygiene and housekeeping practices should be adhered to.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion:
Sodium hypochlorite	7681-52-9	<10 % w/w
Potassium hydroxide	1310-58-3	10 – 30 % w/w
Disodium metasilicate	10213-79-3	<10 % w/w
Ingredients determined to be non-hazardous	various	< 10 % w/w
Water	7732-18-5	To 100 % w/w

NOTE: Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication "List of Designated Hazardous Substances" or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication "Approved Criteria for Classifying Hazardous Substances", or have been found NOT to meet the criteria of a dangerous substance as defined in the GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), 4th edition United Nations 2011. Listed ingredients may be below the cut-off concentrations for classification as hazardous, but are listed for information purposes and for additive effects.

SECTION 4 – FIRST AID MEASURES

Inhalation	Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.
Skin contact	Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness persists.
Eye contact	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.
Ingestion	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek immediate medical advice (e.g. doctor).
Advice to Doctor	Treat symptomatically and supportively. Can cause corneal burns. Delayed pulmonary oedema may result. Consider oral administration of sodium thiosulfate solutions if sodium hypochlorite is ingested. Do not administer neutralizing substances (e.g., acid antidotes) since the resultant exothermic reaction could further damage tissue. Sodium thiosulphate immediately reduces hypochlorite to non toxic products but may product hydrogen sulphide in contact with acids. Endotracheal intubation could not be needed if oedema compromises the airway. For individuals with significant inhalation exposure monitor arterial blood gases and chest x-ray. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.
Scheduled Poisons	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand



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	can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 0800 764 766).
First Aid Facilities	Eyewash, safety shower and normal washroom facilities.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Non flammable liquid. However, on evaporation of the aqueous component, the residual material may burn. Contact with metals may evolve flammable hydrogen gas.
Extinguishing Media	Use an extinguishing media suitable for surrounding fires. Use carbon dioxide (CO ₂) fire extinguisher, water fog, foam or fine water spray.
Fire Fighting	Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition.
Flash Point	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures	<p>HAZCHEM CODE : 2R</p> <p>2 = water fog – in the absence of fog, a fine spray may be used. R = No risk of violent explosion, Full protective clothing, Dilute.</p> <p>Shut off engine and electrical equipment and leave off. No smoking or naked lights within 50 metres. Move people from immediate area; keep upwind. Consider initial evacuation distance of 100 metres in all directions. Stop leak if safe to do so. Send messenger to notify fire brigade and police. Tell them location, material quantity, UN number and emergency contact. Indicate condition of vehicle and damage or injuries observed. Warn other traffic.</p> <p>Occupational Release</p> <p>Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water-courses. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Residual deposits will remain slippery. Wash area down with excess water. If required, neutralize with sodium metabisulphite or sodium thiosulphate. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.</p>
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SECTION 7 – HANDLING AND STORAGE

Handling	Corrosive liquid. Attacks skin and eyes. Causes burns. Avoid skin or eye contact with concentrate. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered. Launder contaminated clothing before re-use.
Storage	Corrosive liquid. Store in a cool dry well-ventilated area. Store away from oxidising agents and acids. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Provide a catch-tank in a bunded area. Store in original packages as approved by manufacturer. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing. For information on the design of the storeroom, reference should be made to Australian Standard AS 3780 The storage and handling of corrosive substances. Ensure that storage conditions comply with applicable local and national regulations.






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SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	<p>National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:</p> <p>Time-weighted Average (TWA): None established for product. Potassium hydroxide TWA: 2mg/m³ Peak limitation Sodium hypochlorite : 3 mg/m³ (1 ppm) Peak limitation</p> <p>Short Term Exposure Limit (STEL): None established for product.</p>
Ventilation	<p>This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.</p>
Personal Protective Equipment	<p>Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. The following protective equipment should be available;</p>
Eye Protection 	<p>Safety glasses with full face shield should be used for handling concentrate in quantity, cleaning up spills, decanting, etc. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.</p>
Hand Protection 	<p>Wear gloves of impervious material such as butyl rubber, natural latex, neoprene, PVC and nitrile – to handle in quantity, clean up spills, decanting, etc. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.</p>
Body Protection 	<p>Suitable protective workwear, e.g. rubber or plastic apron, sleeves, boots and cotton overalls buttoned at neck and wrist are recommended. Chemical resistant apron is recommended where large quantities are handled.</p>
Respirator	<p>If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.</p>

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Non-viscous liquid	Colour	straw
Odour	characteristic odour	Specific Gravity	1.1 – 1.2 @ 25 °C
Boiling Point	Approximately 100 °C	Freezing Point	Approximately 0 °C
Vapour Pressure	Not available	Vapour Density	Not available
Flash Point	Not flammable	Flammable Limits	none
Water Solubility	Miscible in all proportions	pH	14 neat
Volatile Organic Compounds (VOC)	0 % v/v	Per Cent Volatile	Ca 85 % v/v
Viscosity	Not available	Odour Threshold	Not available

SECTION 10 – STABILITY AND REACTIVITY



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Reactivity	Stable at normal temperatures and pressure.
Conditions to Avoid	Extremes of temperature and direct sunlight. Reacts vigorously with acids.
Incompatibilities	ACIDS: violent reaction can occur, yielding heat and pressure, which can burst an enclosed container. Attacks many reactive metals (aluminium/magnesium/zinc alloys) releasing highly flammable gas (hydrogen), which generates fire or explosion hazards. Reacts slowly with ambient air (particularly carbon dioxide), which may cause certain insoluble salts to form in solutions. Incompatible with amines, ammonium salts, aziridine, methanol and phenylacetonitrile. Reacts with metal salts, peroxides and reducing agents. Reacts violently with acids.
Hazardous Decomposition	Thermal decomposition may result in the release of toxic and/or irritating fumes. Reacts vigorously with acids producing dangerous levels of gaseous chlorine.

SECTION 11 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

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:

Inhalation	Inhalation of mists or aerosols can produce mucous membrane and respiratory irritation. Exposure to high concentrations of the product in liquid form or as a mist may lead to possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema.
Skin contact	Corrosive to skin - may cause skin burns, severe irritation. Corrosion will continue until removed. Severity depends on the concentration and duration of exposure. Burns are not immediately painful; onset of pain may be minutes to hours.
Eye contact	Corrosive to eyes; contact can cause corneal burns. Permanent eye damage, including loss of sight, may occur. High concentrations of vapours will cause irritation.
Ingestion	Swallowing can result in nausea, vomiting of blood and eroded tissue; chemical burns of the mouth, throat & abdomen; perforation of the gastrointestinal tract.
Chronic exposure	Prolonged and repeated skin contact with diluted solutions may induce eczematoid dermatitis. Development of a defatting dermatitis on prolonged contact with potassium hydroxide has been reported.
Toxicology Information	Oral LD50 (calculated) : >2000 mg/kg
Carcinogen Status	
NOHSC	No significant ingredient is classified as carcinogenic by NOHSC.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.
Respiratory sensitisation	Not expected to be a respiratory sensitizer.
Skin Sensitisation	Not expected to be a skin sensitizer.
Germ cell mutagenicity	Not considered to be a mutagenic hazard.
Reproductive Toxicity	Not considered to be toxic to reproduction.
STOT-single exposure	Not expected to cause toxicity to a specific target organ.
STOT-repeated exposure	Not expected to cause toxicity to a specific target organ.
Aspiration Hazard	Not expected to be an aspiration hazard.

SECTION 12 – ECOLOGICAL INFORMATION

Eco-toxicity Product (as sold)	Toxic to aquatic life with long-lasting effects. Acute Aquatic Toxicity - 2 /Chronic Aquatic Toxicity - 2 Acute Aquatic Toxicity (Calculated) LC50: 4.0 - 240 mg/L.
Eco-toxicity Product (at use dilution)	Not harmful to aquatic life. LC50 > 100mg/L. Acute Aquatic Toxicity (Calculated) LC50: 400 – 24,000 mg/L.



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1:100 rinse)	Acute Aquatic Toxicity NOT HAZARDOUS
Persistence and degradability	Biodegradable, based on ingredients.
Bio accumulative potential	No bioaccumulation is expected.
Mobility in soil	Due to its physico-chemical characteristics, highly mobile in the environment and will partition to the aquatic compartment.
Other adverse effects	Not available
Environmental Protection	Do not discharge this material into waterways.

SECTION 13 – DISPOSAL CONSIDERATIONS

	Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.
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SECTION 14 – TRANSPORT INFORMATION

Labels Required	
ADG	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. 
IMDG Marine Pollutant	No
HAZCHEM	2R
Land Transport (ADG)	
UN Number	1719
ADG Proper Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE and SODIUM HYPOCHLORITE)
ADG Code Hazard Class	8
HAZCHEM Code	2R
Special Provisions	None allocated.
Packing Group	II
Packaging Method	None allocated.
IERG Number	37
Segregation	This material is classified as a Class 8 Corrosive Substances Dangerous Goods Class 8 Dangerous Goods are incompatible in a placard load with any of the following: - Class 1: Explosives - Division 4.3: Dangerous when wet Substances - Division 5.1: Oxidising substances - Division 5.2: Organic peroxides - Class 6, Toxic or Infectious Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids Class 7: Radioactive materials unless specifically exempted and are incompatible with food and food packaging in any quantity. Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong

SECTION 15 – REGULATORY INFORMATION



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GHS Classification	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
SUSMP	S6 (POTASSIUM HYDROXIDE)
ADG Code	Class 8
AICS	All ingredients present on AICS.

SECTION 16 – OTHER INFORMATION

Issue Date	3 rd December 2016
Version Number	V 2.0 GHS classification
Abbreviations and acronyms	<p>ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail.</p> <p>AICS: Australian Inventory of Chemical Substances.</p> <p>CAS Number: Chemical Abstracts Service Registry Number.</p> <p>GHS: Globally Harmonized System of Classification and Labelling of Chemicals</p> <p>HAZCHEM: An emergency action code of numbers and letters which gives information to emergency services.</p> <p>HSIS: Hazardous Substances Information System</p> <p>IARC: International Agency for Research on Cancer.</p> <p>NOHSC: National Occupational Health and Safety Commission.</p> <p>NTP: National Toxicology Program (USA).</p> <p>SDS: Safety Data Sheet</p> <p>STEL: Short Term Exposure Limit.</p> <p>SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons.</p> <p>TWA: Time Weighted Average.</p> <p>UN Number: United Nations Number.</p>
Literature references	<p>Preparation of Safety Data Sheets for Hazardous Chemicals – Code of Practice (Safe Work Australia)</p> <p>GHS Hazardous Chemical Information List (Safe Work Australia)</p> <p>Guidance on the Classification of Hazardous Chemicals under the WHS Regulations.</p> <p>Global Harmonized System of Classification and Labelling of Chemicals (GHS)</p> <p>“Australian Exposure Standards”. Safework Australia</p> <p>Australian Code For The Transport Of Dangerous Goods By Road And Rail</p> <p>Standard for the Uniform Scheduling of Medicines and Poisons</p> <p>Material Safety Data Sheets – individual raw materials – Suppliers</p> <p>HSIS – Hazardous Substance Information System – National Safe Work Australia Data Base.</p> <p>HCIS – Hazardous Chemical Information System – National Safe Work Australia Data Base.</p>
Disclaimer	<p>This MSDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.</p>

End of SDS