

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**PRODUCT NAME:** MACHINE DISHWASHING LIQUID  
**OTHER NAMES:** NONE  
3036402 5L  
3036396 25L  
**RECOMMENDED USE:** ALKALINE DISHWASHING DETERGENT FOR AUTOMATIC DISHWASHERS.  
**SUPPLIER NAME:** REWARD DISTRIBUTION (ABN 40 010 183 669)  
**ADDRESS:** 13 BUSINESS STREET, YATALA, QLD, 4207  
**TELEPHONE:** GENERAL ENQUIRIES: + 61 7 3441 5800  
**FAX:** GENERAL ENQUIRIES: + 61 7 3441 5803  
**EMERGENCY TELEPHONE NUMBER:** AUSTRALIA: 1800 628 724 (ALL HOURS)  
INTERNATIONAL: + 61 7 3710 3184 (ALL HOURS)

## 2. HAZARDS IDENTIFICATION

**HAZARD CLASSIFICATION:** Classified as **hazardous** according to the criteria of Safe Work Australia.  
Classified as a **dangerous good UN 1719** according to the criteria of ADG Code (see section 14).  
Classified as **schedule 6** according to the criteria of SUSDP (see section 15).  
**HAZARD CATEGORY:** C – Corrosive  
**RISK PHRASES:** R41 - Risk of serious damage to eyes.  
R35 – Causes severe burns.  
**SAFETY PHRASES:** S1/2 – Keep locked up and out of reach of children.  
S24/25 – Avoid contact with eyes and skin.  
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39 – Wear suitable gloves and eye/face protection.  
S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

*The information contained in this MSDS is specific to the product when handled and used neat. This product when diluted may not require the same control measures as the neat product. Check with your technical representative if in doubt.*

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	PROPORTION (% w/w)
<i>The ingredients below are considered either <b>hazardous, dangerous goods or poison scheduled</b> according to the criteria of SWA, ADG Code and SUSDP (respectively) at the levels used in the product.</i>		
potassium hydroxide	1310-58-3	10 - <30%
<i>The ingredients below are <b>not</b> considered either <b>hazardous, dangerous goods or poison scheduled</b> according to the criteria of SWA, ADG Code and SUSDP (respectively) at the levels used in the product.</i>		
water		30 – 60%
builders		<10%
sequestrant		<10%
hydrotrope		<10%
dye		<10%

## 4. FIRST AID MEASURES

<b>INGESTION:</b>	For advice, contact a Poisons Information Centre (Phone Australia 131126, New Zealand 0800 764 766) or a doctor. If swallowed, do NOT induce vomiting.
<b>EYE CONTACT:</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
<b>SKIN CONTACT:</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor.
<b>INHALATION:</b>	Remove from source of exposure to fresh air. Seek medical assistance if the effects persist. <b>** SHOW THIS SAFETY DATA SHEET TO A DOCTOR **</b>
<b>FIRST AID FACILITIES:</b>	Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.
<b>NOTES TO PHYSICIAN:</b>	Treat symptomatically and as for strongly alkaline corrosive material.

## 5. FIRE FIGHTING METHODS

<b>SUITABLE EXTINGUISHING MEDIA:</b>	Water spray, foam, carbon dioxide or dry chemical powder.
<b>HAZARDS FROM COMBUSTION:</b>	The product is non-combustible; however, the packaging material may burn to emit noxious fumes. Contact with metals may liberate hydrogen gas which is extremely flammable.
<b>PRECAUTIONS FOR FIRE FIGHTERS AND SPECIAL PROTECTIVE EQUIPMENT:</b>	Fire fighters should wear self-contained breathing apparatus to minimise risk of exposure to vapour or products of combustion.
<b>HAZCHEM CODE:</b>	2R

## 6. ACCIDENTAL RELEASE MEASURES

<b>EMERGENCY PROCEDURES:</b>	Spillages are slippery. Ensure adequate ventilation. Keep spectators away – rope off the area. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination.
<b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP:</b>	Contain the spill and prevent run off into confined areas, drains and waterways. Large spills: absorb with dry earth, sand or other similar material. Collect and seal in properly labelled drums for disposal in an area approved by local authority by-laws. Wash area down with excess water to remove residual material. Small spills: may be safely mopped up and area washed with excess water. Incineration of disposed material is not recommended, as it is unlikely to adequately burn.

## 7. HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING:</b>	Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Avoid eye contact and repeated or prolonged skin contact. Do not eat, drink or smoke in contaminated areas. Always remove contaminated clothing and wash hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.
<b>CONDITIONS FOR SAFE STORAGE:</b>	Store in the original container, in a cool dry well-ventilated area out of sunlight and away from incompatible materials and foodstuffs. Keep containers closed when not in use to ensure contamination does not occur. Do not combine part drums of the same product, as this may be a source of contamination. Do not mix with other chemicals. Do not store in aluminium or galvanised containers or use die-cast zinc or aluminium bungs; plastic bungs should be used. At temperatures greater than 40°C, tanks must be stress relieved. Keep containers closed when not in use - check regularly for leaks. This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>NATIONAL EXPOSURE STANDARDS:</b>	No value assigned for this specific material by Safe Work Australia (SWA), however as published by SWA: T.W.A. for Potassium hydroxide = 2 mg/m <sup>3</sup> (Peak Limitation)
<b>BIOLOGICAL LIMIT VALUES:</b>	No biological limit allocated.
<b>ENGINEERING CONTROLS:</b>	Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing a respirator. Keep containers closed when not in use.
<b>PERSONAL PROTECTIVE EQUIPMENT :</b>	Protective equipment must be worn at all times. Risk assessments should always be conducted to identify the hazards and in turn determine the appropriate personal protective equipment for the hazard.  Protective gloves: elbow-length natural rubber, nitrile, neoprene, neoprene/natural rubber blend or PVC impervious gloves. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information.  Eye protection: safety glasses/goggles with side shield protection and/or full-face shield. Consult AS/NZS 1336 and AS/NZS 1337 for further information.  Clothing and footwear: waterproof apron, coveralls, trousers, long sleeved shirt, closed in shoes and/or safety footwear. Consult AS/NZS 2210 and AS/NZS 2919 for further information.  Respiratory Protection: Avoid breathing mist, sprays or vapours. Where ventilation is not adequate, respiratory protection may be required. Any air-purifying respirator with a particulate and/or gas filters or any chemical cartridge respirator with cartridge(s) providing protection against the compound of concerns meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>APPEARANCE:</b>	Clear, red mobile liquid.
<b>ODOUR:</b>	Slight caustic odour.
<b>PH (NEAT):</b>	No information available.
<b>SPECIFIC GRAVITY OR DENSITY:</b>	1.28
<b>VAPOUR PRESSURE:</b>	No information available.
<b>PERCENT VOLATILES:</b>	No information available.
<b>BOILING POINT / RANGE:</b>	No information available.
<b>FREEZING / MELTING POINT:</b>	No information available.
<b>SOLUBILITY:</b>	Water soluble.
<b>FLASH POINT:</b>	No information available.
<b>FLAMMABILITY LIMITS:</b>	No information available.
<b>IGNITION TEMPERATURE:</b>	No information available.
<b>SHelf LIFE:</b>	2 years from manufacturing date (when stored as directed).
<b>OTHER:</b>	None.

## 10. STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stable under normal conditions of use. The shelf life is 2 years.
<b>CONDITIONS TO AVOID:</b>	Do not combine part drums of the same product, as this may be a source of contamination.
<b>INCOMPATIBLE MATERIALS:</b>	Acids, aluminium, ammonium salts, tin or zinc coated metals.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	The packaging material may burn to emit noxious fumes.
<b>HAZARDOUS REACTIONS:</b>	Reacts violently with acids. Reacts exothermically on dilution with water. Reacts with ammonium salts and a toxic ammonia gas may be liberated.

## 11. TOXICOLOGICAL INFORMATION

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:

### ACUTE EFFECTS

**INGESTION:** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

**EYE CONTACT:** Highly corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

**SKIN CONTACT:** Highly corrosive to skin - may cause skin burns.

**INHALATION:** Breathing in mists or aerosols may produce respiratory irritation.

**LONG TERM EFFECTS:** No information available.

**ACUTE TOXICITY / CHRONIC TOXICITY:** No toxicity data for this specific product, however toxicity data for the hazardous ingredient is listed below.

TOXICITY DATA FOR POTASSIUM HYDROXIDE: Oral LD50 (rat) 273 mg/kg  
Skin irritation data Std Draize 50 mg/24h; Human – severe, Rabbit - severe  
Eye irritation data Rabbit, non-std test 1 mg/24h, rinse moderate

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Avoid contaminating waterways. The product is highly alkaline. If large spills occurred a water pH rise could be responsible for an environmental effect on aquatic organisms. If not neutralised this product could potentially be toxic for aquatic organisms because of its alkalinity (pH > 9 can have an effect on fish, with possible fish death). pH > 8.5 could be destroying for algae.

**PERSISTENCE AND DEGRADABILITY:** No information available.

**MOBILITY:** No information available.

**OTHER:** None.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS:** Empty containers should be forwarded to an approved agent for recycling. Avoid unauthorised discharge to sewer.

**SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION:** The product is suitable for disposal by landfill through an approved agent. Incineration of the product is not recommended, as it is unlikely to adequately burn.

## 14. TRANSPORT INFORMATION

**ROAD AND RAIL TRANSPORT:** Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

**UN NUMBER:** 1719

**UN PROPER SHIPPING NAME:** CAUSTIC ALKALI LIQUID, N.O.S. (CONTAINS POTASSIUM HYDROXIDE)

**CLASS AND SUBSIDIARY RISK(S):** 8

**PACKAGING GROUP:** II

**HAZCHEM CODE:** 2R

**INITIAL EMERGENCY RESPONSE GUIDE:** Guide 37

**SEGREGATION DANGEROUS GOODS:** Not to be loaded with explosives (class 1), dangerous when wet substances (class 4.3), oxidising agents (class 5.1), organic peroxides (class 5.2), radioactive substances (class 7), corrosives (strong acids of class 8), foodstuffs and foodstuff empties, however exemptions may apply.

<b>MARINE TRANSPORT:</b>	Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
<b>UN NUMBER:</b>	1719
<b>UN PROPER SHIPPING NAME:</b>	CAUSTIC ALKALI LIQUID, N.O.S. (CONTAINS POTASSIUM HYDROXIDE)
<b>CLASS AND SUBSIDIARY RISK(S):</b>	8
<b>PACKAGING GROUP:</b>	II
<b>STOWAGE AND SEGREGATION:</b>	Category A. "Separated from" acids. "Away from" ammonium salts.
<b>AIR TRANSPORT:</b>	Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) for transport by air.
<b>UN NUMBER:</b>	1719
<b>UN PROPER SHIPPING NAME:</b>	CAUSTIC ALKALI LIQUID, N.O.S. (CONTAINS POTASSIUM HYDROXIDE)
<b>CLASS AND SUBSIDIARY RISK(S):</b>	8
<b>PACKAGING GROUP:</b>	II
<b>ERG CODE:</b>	8L

## 15. REGULATORY INFORMATION

<b>POISONS SCHEDULE (AUST.):</b>	6
<b>APVMA STATUS:</b>	Not relevant.
<b>TGA STATUS:</b>	Not relevant.
<b>AICS STATUS:</b>	All the constituents of this product are listed.
<b>AQIS STATUS:</b>	Not relevant.
<b>OTHER:</b>	None.

## 16. OTHER INFORMATION

**GENERAL INFORMATION:** It is a moderately strong alkali. Use good industrial hygiene.

**MSDS ISSUE NUMBER:** 003

**MSDS ISSUE DATE:** 09 APRIL 2015

In any event, the review and, if necessary, the re-issue of a MSDS shall be no longer than 5 years after the last date of issue.

**REASON(S) FOR ISSUE:** 003: Regular update, no changes to regulatory information.

***THIS ISSUE NUMBER REPLACES ALL PREVIOUS ISSUES.***

**LITERARY REFERENCE:**

**SOURCES FOR DATA:**

<b>LEGEND:</b>	
AICS	Australian Inventory of Chemical Substances
APVMA	Australian Pesticides and Veterinary Medicines Authority
AQIS	Australian Quarantine and Inspection Service
AS	Australian Standard (as issued by Standards Australia)
ASCC	Australian Safety and Compensation Council (formerly NOHSC)
ERP Code	Emergency Response Drill Code as found in the ICAO (International Civil Aviation Organisation) Doc 9481
MSDS	Material Safety Data Sheet
NOHSC	National Occupational Health and Safety Commission
PPE	Personal Protective Equipment
STEL	Short Term Exposure Limit - A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
SWA	Safe Work Australia (formerly ASCC)
TGA	Therapeutic Goods Administration
TLV	Threshold Limit Value - TLV is a proprietary name registered by the American Conference of Governmental



# MATERIAL SAFETY DATA SHEET



	Industrial Hygienists (ACGIH) and refers to airborne concentrations of substances or levels of physical agents to which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.
TWA	Time Weighted Average - The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

*This MSDS has been prepared from current technical data and summarises at the date of issue our best knowledge of the health and safety information of the product, and in particular how to safely 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 company.*

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**End of MSDS**