



MATERIAL SAFETY DATA SHEET

PRODUCT NAME **SUPER WASH (ECOWASH)**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name ECOWASH SYSTEMS
Address P.O Box 386, Brookvale, NSW, AUSTRALIA, 2100
Telephone (02) 9938 1800
Fax (02) 9905 0979
Emergency (02) 9938 1800
Web Site www.ecowashsystems.com.au
Synonym(s) ECOWASH SUPER WASH
Use(s) ALKALINE CLEANING AGENT
MSDS Date 25 July 2007

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

RISK PHRASES

R22 Harmful if swallowed.
R35 Causes severe burns.

SAFETY PHRASES

S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre.
S37/39 Wear suitable gloves and eye/face protection.

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No. 1814 **DG Class** 8 **Subsidiary Risk(s)** None Allocated
Pkg Group II **Hazchem Code** 2R **EPG** 8A1

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
POTASSIUM HYDROXIDE	K-O-H	1310-58-3	10-30%
ADDITIVES	Not Available	Not Available	10-30%
ALKALINE SALT(S)	Not Available	Not Available	<10%
WATER	H2O	7732-18-5	remainder

4. FIRST AID MEASURES

Eye	Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.
Inhalation	Leave area of exposure immediately. If assisting a victim avoid becoming a casualty, wear an Air-line respirator where an inhalation risk exists. Remove victim from exposure area & keep warm. If victim is not breathing apply artificial respiration & seek urgent medical attention.
Skin	Remove contaminated clothing and gently flush affected areas with water. Continue to flush with water until skin no longer feels soapy. Seek medical attention. Launder clothing before reuse.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor. If swallowed, do not induce vomiting.
Advice to Doctor	CORROSIVE POISONING TREATMENT: Immediate treatment preferably in a hospital is mandatory. In treating corrosive poisoning, DO NOT INDUCE VOMITING; DO NOT ATTEMPT GASTRIC LAVAGE; and DO NOT ATTEMPT TO NEUTRALISE THE CORROSIVE SUBSTANCE. Vomiting will increase the severity of damage to the oesophagus as the corrosive substance will again come in contact with it. Attempting gastric lavage may result in perforating either the oesophagus or stomach.

Immediately dilute the corrosive substance by having the patient drink milk or water. If the trachea has been damaged tracheostomy may be required. For oesophageal burns begin broad-spectrum antibiotics and corticosteroid therapy. Intravenous fluids will be required if oesophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating oesophageal scars and strictures.

First Aid Facilities Eye wash is essential, a hand wash basin and safety shower are recommended.

5. FIRE FIGHTING MEASURES

Flammability	Non flammable. May evolve toxic gases when heated to decomposition. Contact with some metals (eg: aluminium), may liberate potentially flammable - explosive hydrogen gas. May also evolve potassium carbonate, carbon oxides and nitrogen oxides when heated to decomposition.
Fire and Explosion	Non flammable. May evolve flammable hydrogen gas in contact with some metals. If product is present in a fire, toxic gases may be evolved. Evacuate area & contact emergency services. Remain upwind & notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Non flammable. Prevent contamination of drains or waterways, absorb runoff with sand or similar.
Hazchem Code	2R

6. ACCIDENTAL RELEASE MEASURES

Spillage	If spilt, contact emergency services if appropriate. Wear full-length PVC or rubber gloves, an Air-line respirator (where an inhalation risk exists), coveralls, PVC apron and rubber boots. Ventilate and clear area of all unprotected personnel. Absorb spill with sand, vermiculite or similar. Collect and place in sealable containers for treatment and disposal.
-----------------	--

7. STORAGE AND HANDLING

Storage	Store in cool, dry, well ventilated area, removed from oxidising agents, acids, active metals, direct sunlight, heat sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should be bunded and have appropriate ventilation systems.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

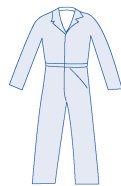
Exposure Standards	Ingredient	Reference	TWA		STEL	
			ppm	mg/m3	ppm	mg/m3
	Potassium hydroxide	NOHSC (AUS)	--	2	--	--

Biological Limit Values No biological limit allocated.

PRODUCT NAME SUPER WASH (ECOWASH)

Engineering Controls Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles, a PVC apron, rubber boots, rubber or PVC gloves, coveralls and a faceshield. At high vapour levels, wear an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR LIQUID	Solubility (water)	SOLUBLE
Odour	ODOURLESS	Specific Gravity	NOT AVAILABLE
pH	ALKALINE	% Volatiles	65 % (Approximately)
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	> 100°C	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE	Autoignition Temperature	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Material to Avoid Incompatible with oxidising agents (eg. peroxides), acids (eg. sulphuric acid), active metals (eg. aluminium, potassium, magnesium), and heat and ignition sources. Will absorb carbon dioxide from the air. Contact with ammonium compounds may generate ammonia.

Decomposition May evolve toxic gases when heated to decomposition. May also evolve potassium carbonate, carbon oxides and nitrogen oxides when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary Use safe work practices to avoid eye or skin contact and spray mist generation or inhalation. This product has the potential to cause severe skin and eye burns with possible permanent tissue damage. If diluted, the risk of adverse health effects is greatly reduced.

Eye Contact may result in pain, lacrimation, redness, conjunctivitis, corneal burns and ulceration with possible permanent damage.

Inhalation Over exposure may result in irritation, coughing and bronchitis. At high level exposure may result in ulceration, lung tissue damage, chemical pneumonitis and pulmonary oedema. Symptoms may be delayed following exposure. Low volatility reduces inhalation hazard unless sprayed/heated.

Skin Contact may result in rash, dermatitis, blistering and severe burns. Effects (eg. burning sensation) may be delayed.

Ingestion Ingestion may result in burns to the mouth and throat, nausea, vomiting and abdominal pain. Large doses may result in ulceration, unconsciousness, convulsions and death.

Toxicity Data POTASSIUM HYDROXIDE (1310-58-3)
LD50 (Ingestion): 273 mg/kg (rat)

12. ECOLOGICAL INFORMATION

Environment WATER: If released to waterways, alkaline products may change the pH of the waterway. Fish will die if the pH reaches 10-11 (goldfish 10.9, bluegill 10.5). SOIL: May leach to groundwater with toxic effects on aquatic life as above. ATMOSPHERE: Not expected to reside in the atmosphere. Drops or particles released to atmosphere should be removed by gravity and/or be rained out.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Neutralise with dilute acid (eg. 3 mol/L hydrochloric acid) or similar. For small amounts absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



Shipping Name	POTASSIUM HYDROXIDE SOLUTION		
UN No.	1814	DG Class	8
Pkg Group	II	Hazchem Code	2R
		Subsidiary Risk(s)	None Allocated
		EPG	8A1

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

ABBREVIATIONS:

ADB - Air-Dry Basis.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m3 - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

TWA/ES - Time Weighted Average or Exposure Standard.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Report Status This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT and Ecowash Systems by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT and Ecowash Systems has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT and Ecowash Systems accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

Prepared By Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

MSDS Date: 19 July 2007

End of Report