Safety Data Sheet

ISSUE DATE: 18/07/18

MACHINE DISH WASH LIQUID

1. Identification

GHS Product identifier	Machine Dish Wash Liquid
Company Name	Blue Lion Supplies Pty. Ltd.
Address	Fact. 3, 29 Barry Street, BAYSWATER, VIC 3153
Telephone	(03) 9720 1577
Fax Number	(03) 9720 1799
Contact	Jim Gillman
Recommended use of the chemical and restrictions on use	**D**etergent for commercial dishwashers
Other Names	Potassium Hydroxide solution
Other Information	Emergency contact: Mobile: 0412 646 246

2. Hazard Identification

GHS classification of the substance/mixture	Skin Corrosion	Category 1A
	Serious Eye Damage	Category 1
	Acute Toxicity (oral)	Category 4

Signal Word (s) CORROSION

Hazard Statement(s)
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H302 Harmful if swallowed.
H312 Harmful in contact with skin
H332 Harmful if inhaled

Risk phrases R35 Causes severe burns.

Pictogram (s)
GHS05
GHS07

Precautionary statement - Prevention
P260 - Do not breathe dust
P264 - Wash exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves, protective clothing, eye protection, face protection

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
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
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.
P330 - If swallowed, rinse mouth
P363 - Wash contaminated clothing before reuse

Storage
P405 - Store locked up
P501 - Dispose of contents/container to comply with local, state and federal regulations

3. Composition/information on ingredients

Hazardous ingredients	CAS no.	Proportion	Hazard symbol	Risk phrase
Potassium hydroxide	1310-58-3	MED	C	R 35

KEY: Proportion, (wt %) - V HIGH >60, HIGH 30 - 60, MED 10 –29, LOW 1-9, V LOW <1

Non hazardous ingredients to 100%

4. First-aid measures

Ingestion:	Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. If vomiting occurs, have victim lean forward to reduce risk of aspiration. If vomiting occurs give further water to achieve effective dilution. Seek immediate medical assistance.
Skin:	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek urgent medical assistance. Cover skin with an emollient.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance. If available, a neutral saline solution may be used to flush the contaminated eye/s an additional 30 minutes.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically as for strong alkalis. Consult Poisons Information Centre. In severe cases, where excessive amounts of potassium hydroxide have been ingested, endoscopy should be performed to determine the severity of the oesophageal burns.
Other Information	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26_ New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion	May liberate toxic fumes in fire (potassium oxide).
Suitable extinguishing media	Use extinguishing media most appropriate for the surrounding fire. Small fire: Use dry chemical, CO2 or water spray. Large fire: Use water spray, fog or foam - Do NOT use water jets. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.
Hazchem Code	2X
Precautions in connection with fire	Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Personal Precautions	Avoid contact with skin and eyes.
Personal Protection	Gloves. Face-shield. Corrosion-proof suit. Dust cloud production: compressed air/oxygen apparatus. Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods-Small Spillages	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to item 13.
Clean-up Methods-Large Spillages	Seek expert advice on handling and disposal.
Environmental Precautions	Avoid release to the environment.

7. Handling and storage

Precautions for Safe Handling	Remove contaminated clothing immediately. Clean contaminated clothing. Use corrosion proof equipment. Do not discharge the waste into the drain. Avoid raising dust. Observe very strict hygiene - avoid contact. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
Conditions for safe storage, including any incompatibilities.	Store in a cool, dry place. Store away from acids and strong oxidising agents. Keep containers securely sealed.
Storage Regulations	Refer Australian Standard AS 3780 - 1994 'The Storage and Handling of Corrosive Substances'.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m^3	ppm	mg/m^3	ppm	Footnote
Potassium hydroxide			2		Ceiling limit

Other exposure Information
A time weighted average (TWA) has been established for Potassium hydroxide (Safe Work Australia) of 2 mg/m^3. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

Appropriate engineering Controls
In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Personal Protective Equipment
Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.

Respiratory Protection
Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-face piece SCBA should be used. If respiratory protection is required; institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Eye Protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Hand Protection
Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
Recommendation: Rubber or plastic gloves.

Footwear
Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection
Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hygiene Measures
Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

9. Physical and chemical properties

Appearance	Clear Yellow liquid
Odour	Characteristic
Melting Point	~0 °C
Boiling Point	~100°C
Flash point	Not applicable
Vapour Pressure	Not determined
Solubility	Miscible in water in all proportions
Specific Gravity	1.2 g/cm^3 @ 20 °C
pH	14 as supplied
Viscosity	~100 cPs 20 °C
Percent volatile	> 80 %
Flammability	Non flammable

10. Stability and reactivity

Chemical Stability	Stable under normal use conditions.
Conditions to Avoid	High temperatures and incompatibilities.
Incompatible Materials	Strong acids and oxidising agents
Hazardous Decomposition products	Potassium oxide**.**
Possibility of hazardous reactions	Reacts violently with acids.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

The following information is based on 100% Potassium Hydroxide

Acute toxicity	Harmful if swallowed. LD50 oral rat 333 mg/kg (Rat; Experimental value)
Skin corrosion/irritation	Causes severe skin burns and eye damage. Serious eye damage/irritation
Respiratory or skin Sensitisation	Not classified
Germ cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified
Symptoms/injuries after Inhalation	AFTER INHALATION OF DUST Dry/sore throat. Corrosion of the upper respiratory tract. Respiratory difficulties. FOLLOWING SYMPTOMS MAY APPEAR LATER: Possible oedema of the upper respiratory tract. Possible inflammation of the respiratory tract. Possible laryngeal spasm/oedema. Risk of pneumonia.
Symptoms/injuries after skin contact	SEVERE SKIN IRRITANT. Caustic burns/corrosion of the skin and slow-healing wounds.
Symptoms/injuries after eye contact	SEVERE EYE IRRITANT. Corrosion of the eye tissue potentially with permanent eye damage and blindness.
Symptoms/injuries after Ingestion	Abdominal pain. Difficulty in swallowing. Possible esophageal perforation. Irritation of the oral mucous membranes. Burns to the gastric/intestinal mucosa. Blood in vomit. AFTER ABSORPTION OF HIGH QUANTITIES: Change in the haemogramme/blood composition. Disturbances of heart rate. FOLLOWING SYMPTOMS MAY APPEAR LATER: Bleeding of the gastrointestinal tract. Low arterial pressure. Blood in stool. Shock.
Chronic symptoms	No effects known.

12. Ecological information

The following information is based on 100% Potassium Hydroxide

Ecology – water	Ground water pollutant. Harmful to fishes. Highly toxic to plankton. pH shift. Insufficient data available on ecotoxicity. LC50 fishes 1 > 28.6 mg/l (96 h; Pisces; LETHAL) LC50 fish 2 80 mg/l (Gambusia affinis) TLM fish 1 80 ppm (24 h; Gambusia affinis)
.	
Persistence and Degradability	Biodegradability: not applicable.

Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
Bioaccumulative potential	Bioaccumulation: not applicable.
Mobility in soil	No additional information available
Other adverse effects	No additional information available

13. Disposal considerations

Disposal Considerations Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

14. Transport information

Transport Information	Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7 and are incompatible with food and food packaging in any quantity. Not to be loaded on the same vehicle with strong acids**.**
U.N. Number	1814
UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Hazchem Code	2X
Packing Group	II

15. Regulatory information

Regulatory Information Listed in the Australian Inventory of Chemical Substances (AICS).

Poisons Schedule None allocated.

16. Other Information

Date of preparation or last revision of SDS 18/07/18

References National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.
'Labeling of Hazardous Workplace Chemicals, Code of Practice' Safe Work Australia.
Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'.
Safe Work Australia, 'Hazardous Substances Information System, 2005'.
Safe Work Australia, 'National Code of Practice for the Labeling of Safe Work Hazardous Substances (2011)'.

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.
IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS.