Safety Data Sheet

ISSUE DATE: 18/08/2015

LIQUID CAUSTIC

1. Identification

GHS Product identifier	Liquid Caustic
Company Name	Blue Lion Supplies Pty. Ltd.
Address	Fact. 3, 29 Barry Street, Bayswater, VICTORIA 3153
Telephone	(03) 9720 1577
Fax Number	(03) 9720 1799
Contact	Jim Gillman
Recommended use of the chemical and restrictions on use	For removal of grease from grease-traps, drainpipes, sinks and concrete floors.
Other Names	Sodium Hydroxide liquid 50%
Other Information	Emergency contact: Mobile: 0412 646 246

2. Hazard Identification

This material is hazardous according to Safe Work Australia.
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

GHS classification of the substance/mixture	Corrosive to Metals	Category 1
	Skin Corrosion	Sub Category 1A
	Eye Damage	Category 1
Signal Word (s)	DANGER, WARNING	
Hazard Statement(s)	H290	May be corrosive to metals.
	H314	Causes severe skin burns and eye damage.
	H318	Causer serious eye damage
R phrases	R35	Causes severe burns
Pictogram (s)	GHS05	Corrosion
	GHS07	Warning

Precautionary statement - Prevention	P234 Keep only in original container. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement-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 victim to fresh air and keep at rest in a position 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/physician. P321 Specific treatment (see First Aid Measures on Safety Data Sheet). P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P390 Absorb spillage to prevent material damage.
Precautionary statement-Storage	P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner.
Disposal	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Hazardous ingredients	Name	CAS no.	Proportion	Hazard symbol	Risk phrase
	Sodium hydroxide	1310-73-2	50%	C	R35

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 sodium hydroxide have been ingested, endoscopy should be performed to determine the severity of the oesophageal burns. Can cause corneal burns.

Other Information For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26 and New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion May liberate toxic fumes in fire.

Suitable extinguishing media Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).
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 Not combustible, however following evaporation of aqueous component residual material can decompose if involved in a fire, emitting toxic fumes. Contact with metals may liberate hydrogen gas which is extremely flammable.

Hazchem Code 2R

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

Emergency procedures Clear area of all unprotected personnel.

Environmental Precautions If contamination of sewers or waterways has occurred advise local emergency services.

Personal Precautions Avoid contact with skin. Avoid contact with eyes.

Personal Protection Slippery when spilt. Avoid accidents, clean up immediately. Wear full protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation.

Clean-up Methods-

Small spillages Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Caution - heat may be evolved on contact with water.

Large Spillages Seek expert advice on handling and disposal.

7. Handling and storage

Precautions for Safe Handling
Avoid skin and eye contact and breathing in vapour, mists and aerosols.

Conditions for safe storage, including any incompatibilities
This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.
Store in cool place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from foodstuffs. 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.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m^3	ppm	mg/m^3	ppm	Footnote
Sodium hydroxide				2	Peak limitation

Other exposure Information
A time weighted average (TWA) has been established for Sodium hydroxide (Safe Work Australia) of 2mg/m^3. Peak Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes. 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 and Odour	Clear thin liquid with very little odour.
Boiling Point/	
Melting Point (°C)	Not Available
Vapour Pressure	Not Available
% Volatile by volume	approx. 50
Specific Gravity	approx. 1.4 g/cm^3
pH (concentrate)	14.0
pH (at shown dilution)	13.1 (1:20) 12.5 (1:80) 12.3 (1:160)
Solubility in water	Complete
Flash Point (°C)	None, Non-flammable
Other Data	None

10. Stability and reactivity

Reactivity	Reacts violently with acids. Reacts exothermically on dilution with water.
Chemical stability	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Absorbs carbon dioxide from the air.
Possibility of hazardous Reactions	Reacts with ammonium salts, evolving ammonia gas. Reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide. Take precautions including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel before vessel entry.
Conditions to avoid	Avoid exposure to moisture.
Incompatible materials	Incompatible with ammonium salts , aluminium , tin , and zinc .
Hazardous decomposition Products	None known.

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:

Ingestion	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye contact:	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Skin contact	**C**ontact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Inhalation	Breathing in mists or aerosols may produce respiratory irritation.
Acute toxicity	No LD50 data available for the constituent sodium hydroxide.
Skin corrosion/irritation	Severe irritant (rabbit).
Chronic effects	No information available for the product.
Mutagenicity	No evidence of mutagenic properties**.**

12. Ecological information

Ecotoxicity	Toxic for aquatic organisms. Harmful effect due to pH shift.	
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.	
Acute Toxicity	Fish	LC50 Gambusia affins (mosquito fish) - 125mg/L - 96 h.
	Daphnia	EC50 (Daphina magna): 76 mg/l/24h.

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

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

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 1824

UN proper shipping name SODIUM HYDROXIDE, LIQUID

Transport hazard class(es) 8

Hazchem Code 2R

Packing Group II

15. Regulatory information

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

Poisons Schedule S6

16. Other Information

Date of preparation or last revision of SDS 18 August 2015

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.

….End of MSDS….