

Safety Data Sheet

ISSUE DATE: 05/09/2024

CAUSTIC SODA

Page 1 of 5

1. Identification

GHS Product identifier Caustic Soda
Company Name Blue Lion Supplies Pty. Ltd.
Address Fact. 3, 29 Barry Street, BAYSWATER, VIC 3153
Telephone (03) 9738 3900

Contact Leigh Gillman

Recommended use of the chemical and restrictions on use Acid neutralizer, general chemical

Other Names Sodium Hydroxide

Other Information Emergency contact: Mobile: 0447 719 987

2. Hazard Identification

GHS classification of the substance/mixture Corrosive to Metals: Category 1
Skin Corrosion/Irritation: Category 1A
Acute toxicity(oral): Category 4

Signal Word (s) DANGER

Hazard Statement(s) H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed
CORROSIVE

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.

Precautionary statement- Response P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.

Precautionary statement- Storage Store locked up.
Store in corrosive resistant container with a resistant liner.



3. Composition/information on ingredients

<u>Hazardous ingredients</u>	<u>Name</u>	<u>CAS no.</u>	<u>Proportion</u>	<u>Hazard symbol</u>	<u>Risk phrase</u>
	Sodium hydroxide	1310-73-2	100%	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.

Safety Data Sheet

ISSUE DATE: 05/09/2024

CAUSTIC SODA

Page 2 of 5

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.
First Aid Facilities	If available, a neutral saline solution may be used to flush the contaminated eye/s an additional 30 minutes. 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.
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 (sodium oxide).
Suitable extinguishing media	Use extinguishing media most appropriate for the surrounding fire. Small fire: Use dry chemical, CO ₂ 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. Avoid getting water inside the containers.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.
Hazchem Code	2W
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	Do not allow hot material to contact water or other liquids. Avoid contact with skin. Avoid contact with eyes.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods- Small Spillages	Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.
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	Avoid generation or accumulation of dusts. Contaminated clothing should be removed and washed before reuse. Application of skin-protective barrier cream is recommended. Wash hands and face thoroughly after working with material. Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. When diluting or preparing solution, add caustic to water in small amounts to avoid boiling and splattering.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place. Store away from acids. Keep containers securely sealed and protected Reaction with certain metals releases flammable and explosive hydrogen gas. This material reacts to form explosive products with ammonia and silver nitrate. When this material is in contact with water, it may generate sufficient heat to ignite adjacent combustible materials.
Corrosiveness	Corrosive to aluminum, tin, zinc. Corrosive to steel at elevated temperatures.
Storage Regulations	Refer Australian Standard AS 3780 - 1994 'The Storage and Handling of Corrosive Substances'.
Other Information	Containers made of nickel alloys are preferred. Steel containers are acceptable if temperatures are not

Safety Data Sheet

ISSUE DATE: 05/09/2024

CAUSTIC SODA

Page 3 of 5

elevated.

8. Exposure controls/personal protection

Occupational exposure limit values

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

Other exposure Information

A time weighted average (TWA) has been established for Sodium hydroxide (Safe Work Australia) of 2 mg/m³. The corresponding STEL level is 2 mg/m³ - 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	White solid, deliquescent flakes or pellets
Odour	Odourless
Melting Point	318 - 323 °C
Boiling Point	1390 °C @ 760 mm Hg
Solubility in Water	Soluble
Solubility in Organic solvents	Soluble in alcohol and glycerol. Insoluble in acetone and ether.
Specific Gravity	2.130 @ 20 °C
pH	12 (0.05% soln) 13 (1% soln) 14 (5% soln)
Odour Threshold	Odourless
Flammability	Non flammable
Molecular Weight	40.01
Other Information	Absorbs water and carbon dioxide from the air.

Safety Data Sheet

ISSUE DATE: 05/09/2024

CAUSTIC SODA

Page 4 of 5

10. Stability and reactivity

Chemical Stability	Stable under normal use conditions. Hygroscopic Slowly absorbs moisture from air, reacting with carbon dioxide and forming sodium carbonate.
Conditions to Avoid	Exposure to moisture. Exposure to air. Dust generation. Incompatibles.
Incompatible Materials	Strong acids, ally alcohol, ally chloride, phosphorous, metals (aluminium, magnesium, tin, zinc), nitro compounds (nitroethane, nitromethane, nitroparaggins, nitropropane) and chloro organic compounds, organic halogen compounds (trichloroethylene), water.
Hazardous Decomposition products	Sodium oxide.
Possibility of hazardous reactions	May react violently with strong acids. In contact with water, reaction may generate enough heat to ignite combustible materials. In contact with metals, reaction may produce flammable and explosive hydrogen gas. May react with organohalogen compounds to form spontaneously combustible compounds. May react explosively in contact with nitro and chloro organic compounds. May form explosive products with ammonia plus silver nitrate, benzene and benzene sulfonyl chloride, tetrahydrofuran, sodium tetrahydroborate, and trichlorophenol sodium salt plus methyl alcohol plus trichlorobenzene plus heat.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Corrosive. Swallowing may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue and death may result. Similar symptoms may be experienced as for inhalation with, severe pain, severe scarring of tissue, diarrhea, bleeding, vomiting, fall in blood pressure, collapse and death. Damage may appear days after exposure. Risk of perforation in the oesophagus and stomach.
Inhalation	Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage or burns of the mucous membranes of the upper respiratory tract, depending on severity of exposure. Symptoms may include coughing, wheezing, laryngitis, shortness of breath, nausea, vomiting, sneezing, sore throat or runny nose. Severe chemical pneumonitis and pulmonary edema may occur.
Skin	Corrosive. Contact with skin causes severe burns and scarring. Can penetrate skin deeply. Burns are not immediately painful, onset of pain and irritation may be minutes to hours.
Eye	
Carcinogenicity	Corrosive. Causes severe burns. Can penetrate eye deeply. In severe cases, ulceration, permanent impairment of vision and permanent blindness may occur.
Chronic Effects	Not listed.
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 affinis (mosquito fish) - 125mg/L - 96 h. Daphnia EC50 (Daphnia 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.
--------------------------------	--

Safety Data Sheet

ISSUE DATE: 05/09/2024

CAUSTIC SODA

Page 5 of 5

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	1823
UN proper shipping name	SODIUM HYDROXIDE, SOLID
Transport hazard class(es)	8
Hazchem Code	2W
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 13/02/2023

References National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.
'Labelling 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 Labelling of Safe Work Hazardous Substances (2011)'.

Empirical Formula & Structural Formula NaOH

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 SDS....