Infosafe No™ VARBM	Issue Date :November 2024	ISSUED by MILESTON

Product Name **CAUSTIC SODA**

Section 1 - Identification

Product Identifier	CAUSTIC SODA
Company Name	Milestone Chemicals Pty. Ltd. (ABN 85115166357)
Address	115 Northern Road West Heidelberg VIC 3081 AUSTRALIA
Telephone/Fax Number	Tel: (03) 9450 4555 Fax: (03) 9457 5518
Emergency Phone Number	(03) 9450 4555 Mon-Fri 8am - 6pm
Recommended use of the chemical and restrictions on use	Multi purpose heavy duty alkaline cleaner.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture	Skin corrosion/irritation: Category 1A
Signal Word	DANGER
Hazard Statement (s)	H314 Causes severe skin burns and eye damage.
Pictogram (s)	Corrosion

Precautionary Statement – Prevention	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash contaminated skin thoroughly after handling. P280(f) 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): Take off immediately all contaminated clothing. Rinse skin with water [or 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/doctor. P363 Wash contaminated clothing before reuse.
Precautionary Statement – Storage	P405 Store locked up.
Precautionary Statement – Disposal	P501 Dispose of contents/container: Recycle packaging by replacing cap and returning clean containers to recycler or designated collection point.
Precautionary Statement – General	P102 Keep out of reach of children. P103 Read carefully and follow all instructions.

Section 3 - Composition and Information on Ingredients

Ingredients	**Name**	**CAS**	**Proportion**
	Sodium hydroxide	1310-73-2	100 %

Section 4 - First Aid Measures

Inhalation	Remove victim to fresh air. Do not use mouth-to-mouth method if victim inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult
Ingestion	If swallowed, do NOT induce vomiting. Give a glass of water to be taken slowly. Seek urgent medical assistance.

Skin	If skin contact occurs, remove contaminated clothing and wash skin thoroughly. Wash clothing before re-use. Seek medical assistance.
Eye	If in eyes, hold eyes upen, flood with water for at least 15 minutes. Seek urgent medical assistance.
First Aid Facilities	Eye wash. Hand wash basin. Emergency shower.
Advice to Doctor	Sodium hydroxide is highly corrosive. Vomiting has not been induced because of risk of aspiration into the lungs. If swallowed, may cause holes in stomach and intestines. Evacuation of stomach should not be attempted. Contact Poisons Information Centre.

Section 5 - Firefighting Measures

Suitable Extinguishing Media	Water fog or fine water spray.
Specific Methods	In case of small fire/explosion use water. In case of major emergency use PPE: breathing apparatus and protective gloves.
Specific Hazards Arising from the Chemical	Not flammable. Contact with aluminium, tin, zinc or galvanised iron may generate hydrogen, a flammable gas. Will react vigorously or violently with acids, generating much heat, and giving off carbon dioxide, a simple asphyxiant. Contact with ammonium compounds will generate ammonia, a poisonous gas.
Hazchem Code	2X

Section 6 - Accidental Release Measures

Methods and materials for containment and cleaning up	Remove all non-ferrous metals from area (aluminium, zinc and magnesium), if product has spilt on these metals immediately, flush them with plenty of water and shut off ignition sources, no smoking or flames in hazard area. Stop leak if you can do it without risk. Water spray may reduce vapour; but it may not prevent ignition in closed spaces.
Spills & Disposal	SMALL SPILLS: Take up with sand, dirt or vermiculite. Do NOT use sawdust. Use non-sparking tools. Place into labeled plastic drum(s) for later disposal. LARGE SPILLS: Notify Emergency Services (Police or Fire Brigade). Tell them exact location, nature, hazards, quantities, type of vehicle and any other information that would be helpful. Contain spill. Remove all ignition sources and safely stop flow of spill. Bund area. Trained personnel should wear Personal Protective equipment as highlighted in this MSDS. Blanket the spill with foam or use water fog to disperse vapour clouds. Consult an expert regarding disposal of this product.
Personal Protection	Wear protective clothing to prevent eye and skin contamination. Ensure an eye bath and safety shower is available. Operators are recommended to wear full protective clothing, glasses, gloves, apron etc. including footwear.
Environmental Precautions	Prevent spills from entering drains and waterways. Contact local emergency services if contamination of sewers or waterways occurs.
Other Information	Products that contain alkali hydroxides must be kept away from non-ferrous metals, as extremely flammable hydrogen gas will be generated and if the appropriate flammability limits are reached and a source of ignition is present, a violent explosion will occur.

Section 7 - Handling and Storage

Precautions for Safe Handling	Handle according to good manufacturing and industrial hygiene practices. Do not drink, eat or smoke while handling. Respect good personal hygiene.
Conditions for safe storage, including any incompatibilities	Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition, strong acids, aluminium, zinc and magnesium or their alloys. All equipment must be earthed. Store in original packages as approved by manufacturer. Check all fittings, valves, reticulation (piping) and any ancillary equipment for leaks. A supplied air respirator or a self-contained breathing apparatus (SCBA) for emergencies should be available and checked regularly. For further information please refer to the Engineering Controls of this MSDS.

Unsuitable Materials	Store away from acids. Hydrogen gas is generated when undiluted material contacts aluminium, zinc or tin.
Additional information on precautions for use	Mixing this product with strong mineral acids such as sulfuric, nitric and/or hydrochloric acid will result in a highly exothermic (releasing heat) reaction, which may lead to a fire and potential explosion.

Section 8 - Exposure Controls and Personal Protection

Occupational Exposure Limit (OEL) Values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Sodium hydroxide			2		Peak limitation

Engineering Controls

Do not use aluminium, tin, zinc or galvanised iron as materials of construction. Use in a well ventilated area. If ventilation is insufficient use a corrosive - resistant ventilation system separate from other exhaust systems. Engineering control methods to reduce hazards are preferred.

Personal Protective Equipment

Avoid contact with skin and eyes. Avoid breathing dusts or aerosols. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Select and use respirators in accordance with AS/NZS 1715/1716. When the concentration of airborne contaminants reach the exposure standards then the use of a half-face respirator with P1 filter is recommended. For high concentration use an atmosphere-supplied, positive pressure demand self-contained or airline breathing apparatus supplied air respirator complying with the requirements of AS/NZS 1715 is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant.

Always maintain a high level of personal hygiene when using cleaning chemicals. That is wash hands before eating, drinking, smoking or using the toilet.

Section 9 - Physical and Chemical Properties

Form	Solid
Appearance	White prills.
Odour	Sharp caustic
Melting Point	318 °C
Solubility in Water	Up to 600 grams per litre with generation of heat.
Specific Gravity	2.2 (bulk density)
pH	pH 1% solution: >13
Vapour Pressure	None
Flash Point	None.
Flammability	Not flammable. Contact with aluminium, tin, zinc or galvanised iron may generate hydrogen, a flammable gas.
Other Information	Highly alkaline, will react violently with acids. Hygroscopic, will absorb moisture from the air. Will absorb carbon dioxide from the air, forming a coating of sodium carbonate. Will get hot when dissolved in water and may boil. Always add this material to water, never add water to this material. May boil explosively if added to hot water. Contact with active metals (such as aluminium, tin, zinc) may generate hydrogen, a flammable gas. Contact with ammonium compounds may generate ammonia, a toxic gas. May form shock-sensitive products with organic nitro compounds. May react vigorously, violently, catch fire or cause explosions with a wide variety of chemicals. Will attack wood

and paper products, and glass on prolonged contact. May react with sugars to generate carbon monoxide, a toxic, odourless gas.

Section 10 - Stability and Reactivity

Chemical Stability Stable under normal use conditons.

Possibility of Hazardous Reactions Will react violently with acids. May boil explosively if added to hot water. May form shock-sensitive products with organic nitro compounds. May react violently with organic halides. Contact with sugars may generate carbon monoxide.

Conditions to Avoid Incompatible materials, exposure to moisture or air. Reactions with mineral acids generate heat. Reaction with non-ferrous metals generates hydrogen gas which may cause explosion under appropriate conditions.

Incompatible Materials Oxidising agents, acids, acidic materials, ammonium compounds, nitro compounds, organic halides, active metals, wood, paper, glass.

Hazardous Decomposition Products Sodium oxide.

Section 11 - Toxicological Information

Toxicology Information No adverse health effects are expected, if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled and overexposure occurs are:

Acute Toxicity - Oral LD50 Oral Mouse: 40 mg/kg
Oral Rat: 140-340 mg/kg

Ingestion May be fatal. Causes very serious damage to the mucous membranes and any other tissues it comes into contact with. May cause swelling of the larynx and subsequent suffocation. May cause burns in the mouth and throat, nausea, vomiting, abdominal pains and diarrhoea (occasionally bloody), fall in blood pressure, heart failure, coma and death. May cause perforation of the stomach and intestines, and the sites of subsequent scarring have been associated with the later development of stomach cancer. Internal damage may not be apparent until
days after exposure, but may still prove fatal.

Inhalation Inhalation of dusts or concentrated mists may cause damage to the upper respiratory tract and lungs. Symptoms may range from a mild irritation of the mucous membranes, cough, a burning sensation, laboured breathing, sneezing, sore throat, a runny nose, to severe
pneumonitis (irritation and inflammation of lung tissues). Inhalation may also cause pulmonary oedema (fluid build-up in the lungs), with the potential to become a medical emergency. Onset of symptoms may be delayed for several hours.

Skin Causes severe, deep burns. Exposure to dusts or mists may cause small burns, redness and a rash.

Eye Corrosive to eyes. Contact with the eyes rapidly causes severe damage to the tissues. May cause redness, pain, blurred vision. May cause severe, deep burns and permanent impairment to, or total loss of, sight.

Chronic Effects Prolonged contact may cause severe eye irritation and some form of permanent eye damage may occur. Prolonged or repeated skin contact will lead to necrosis (death) of the skin.

Section 12 - Ecological Information

Ecotoxicity Extremely poisonous and corrosive/reactive in large amounts, particularly in aquatic environments.

Mobility Readily transported by water.

Environmental Fate This substance may cause long term adverse effects in the aquatic environment.

Environmental Protection Avoid contaminating waterways, drains, sewers, or ground.

Section 13 - Disposal Considerations

Waste Disposal	Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Advise of caustic/alkali nature. Normally suitable for disposal by approved waste disposal agent.

Section 14 - Transport Information

Transport Information	Classified as a Class 8 Dangerous Good. Dangerous Goods of Class 8 Corrosives 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 and Class 7. Store away from acids.
ADG UN Number	1823
ADG Proper Shipping Name	SODIUM HYDROXIDE, SOLID
ADG Transport Hazard Class	8
ADG Packing Group	II
Hazchem Code	2X
EPG Number	8A1
IERG Number	37

Section 15 - Regulatory Information

Poisons Schedule	S6
Australia (AICS/AIIC)	All components listed.

Section 16 - Any Other Relevant Information

Date of Preparation	3/11/2024
Literature References	Preparation of Safety Data Sheets for hazardous Chemicals Code of Practice Standard for the Uniform Scheduling of Medicines and Poisons Australian Code for the Transport of Dangerous Goods by Road & Rail Globally Harmonised System of classification and labelling of chemicals GHS7
Signature of Preparer/Data Service	Technical manager Tel: (03) 9450 4555
Technical Contact Numbers	Emergency Advice All Hours: Chief Chemist Tel: (03) 9450 4555 Mon-Fri 8am - 6pm Poisons Information Centre: 13 11 26 - 24hrs
Other Information	This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the Workplace. Please refer to the technical datasheet (Instructions for use), and the label on the drum. The company cannot anticipate or control the individual working conditions encountered and so each user should read this SDS carefully, and if in doubt ring the Contact Point Number given below. ...End Of MSDS...

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