1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Caustic Soda

Recommended Use: Soap forming, degreasing, hydrolysing fats.

Supplier: Midland Chemicals
ABN: 91 622 018 986

Street Address: 18 Elliott Street
Midvale
Western Australia

Telephone Number: +61 08 9274 1992

Facsimile: +61 08 9250 1710

Emergency Telephone: **1 800 033 111 (ALL HOURS)**

2. HAZARDS IDENTIFICATION

Hazardous according to the criteria of ASCC [NOHSC:1008(2004)]

Road and Rail; Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

Risk Phrases: R35: causes severe burns.
R41: Risk of serious eye damage.

Safety Phrases: S2: Keep out of reach of children.
S3: Keep in a cool place.
S13: Keep away from food, drink and animal foodstuffs.
S14: Keep away from acids, and ammonium salts and other Class 8 corrosive substances.
S23: Do not breathe gas/fumes/vapour/spray
S24/25: Avoid contact with skin and eyes
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27/28: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell seek medical advice immediately (show label where possible)
S46: If swallowed, seek medical advice immediately and show this container or label.

Poisons Schedule: 6

Packaging group number: II

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Risk Phrases
Sodium Hydroxide (NACID)	1310-73-2	98.4%	R36, R38

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Inhalation:
Remove from contaminated area immediately; avoid becoming a casualty. If not breathing apply artificial resuscitation. Experienced person may administer Oxygen if breathing is difficult. Immediately transport to hospital or doctor.

Skin Contact:
If spilt on skin or hair, immediately drench with running water and remove contaminated clothing. Wash affected areas thoroughly with mild soap and water. Seek medical attention.

Eye Contact:
Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Seek immediate medical attention. Immediately transport to a hospital or doctor.

Ingestion:
Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give 1-3 glasses of water, Never give anything by mouth to an unconscious person. If vomiting occurs give further water. Seek immediate medical assistance. Contact a doctor or the Poisons Information Centre Immediately.

Medical attention and special treatment:
Wash skin until soapiness feeling disappears. Treat symptomatically based on judgement of doctor and individual reactions of patient. This product is very Alkaline and very corrosive.

5. FIRE FIGHTING MEASURES

Hazards from combustion products:
Generally all the reactions with acids and halogenated substances are strongly exothermic. It forms explosive products (chloroacetylenic derivatives) by reacting with Trichloroethylene at warm temperatures. It can cause the decomposition of maleic anhydride at explosive speed. It causes violent polymerisation of acrolein and acrylonitrile. It reacts exothermically with alcohol and chloroform mixtures. Incompatible with strong oxidising agents and strong acids, organic materials, aluminium, zinc, tin, and nitro compounds. Absorbs CO^2 from air. Material itself is not flammable or explosive but reactions with metals can generate hydrogen gas which is flammable in air (between % and 75% volume). May start fires in contact with fuels.

Precautions for fire fighters and special protective equipment:
Fire fighters to wear a positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Clear fire of all non-emergency personnel. Stay up wind. Keep out of low areas. Eliminate ignition source. Risk of exposure to products of decomposition.

Suitable Extinguishing Media:

DO NOT USE WATER. Use extinguishing media appropriate o surrounding fire conditions. Remove containers not involved in the fire from vicinity. Fire-fighters should wear full protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:
Clear area of all unprotected personnel. Personnel involved in the clean up should wear full protective clothing as described in section 8. Eliminate all sources of ignition. Increase ventilation. Stop leak if safe to do so. Isolate the danger area. Do not let product reach drains or waterways. If product enters sewers or waterways advise local emergency services, or Environmental Protection Authority.

Methods and materials for containment and clean up:
Wear protective equipment to prevent skin and eye contact. Corrosive liquid. Oxidizing material. Stop leak if without risk. Absorb with sand or soil, scoop up and place in suitable containers for later treatment/disposal. Use very dilute acid for neutralisation. Dispose of in accordance with loal, state and federal regulations at an approved waste disposal facility. Neutralise aqueous solutions with very diluted Hydrochloric Acid. Drain effluent with plenty of water, keeping pH under control. Beware of heat and splashes caused by water reactions (dissolution heat) or neutralisation.

7. HANDLING AND STORAGE

This material must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles.

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:
Worksafe recommends – TWA 2mg/m^3 peak limitation.

Engineering controls:
Use in open well ventilated area or provide adequate exhaust ventilation in order to maintain exposure levels below standards if used in closed areas.

Personal Protective Equipment:
Wear full protective clothing, boots, safety goggles, gloves, and a self contained breathing apparatus. Before breaks and at end of work, wash hands and face thoroughly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: crystalline flakes or pearls
Colour: White
Solubility: 520g/L in water
Specific Gravity: 2.1
Relative Vapour Density (air=1): N/A
Vapour Pressure (20 °C): N/A
Flash Point (°C): N/A
Flammability Limits (%): N/A
Auto Ignition Temperature (°C): N/A
Boiling Point/Range (°C): 1390^{o}C
pH: 14 @ 1% solution

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. May start fire in contact with fuels. Reactions with metals can release flammable hydrogen gas.
Conditions to avoid:	Store in a cool dry place away from oxidising agents, Acids or products of acid generation. Avoid contact with acids, oxidants, sodium nitrate and sodium nitrite. Avoid Heating.
Incompatible materials:	Incompatible with strong oxidising agents, strong acids, organic materials, aluminium, tin, zinc, and nitro compounds.
Hazardous decomposition products:	Nature of decomposition products is not known. Material itself is not flammable or explosive but reactions with metal can generate hydrogen gas which is flammable in air (between 4% and 75% volume). May start fires in contact with fuels.
Hazardous reactions:	Generally all reactions with acids and halogenated substances are strongly exothermic. It forms explosive products (Chloroacetylenic derivatives) by reacting with Trichloroethylene at warm temperatures. It can cause the decomposition of maleic anhydride at explosive speed. It causes violent polymerisation of acrolein and acrylonitrile. It reacts exothermically with alcohol and chloroform mixtures.

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: ingestion of the product causes severe burns of the mouth and the oesophagus, nausea, vomiting, and edema of the pharynx. In the worst cases perforation of the gastrointestinal tract and heart failure may occur.

Eye contact: Contact of this substance with the eyes may cause severe lesions and possible loss of sight.

Skin contact: Skin contact with this substance causes severe burns and necrosis.

Inhalation: Inhalation of dusts may cause pulmonary congestion with subsequent compromission of respiratory functionality followed by loss of consciousness. Extremely irritating to respiratory tract (including mucous membranes, throat and lungs). Slightly toxic.

Long Term Effects: No information available for the product.

Toxicological Data: Sodium Hydroxide LD50: Not Available. LC50: Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity Do not contaminate waterways.

Persistence and degradability possible short term degradation products are not likely. However, long term degradation products may arise.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Dispose of in accordance with all local, state and federal regulations.
All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

14. TRANSPORT INFORMATION

Road and Rail Transport
classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS.
UN No: 1823
Class-Primary: 8 corrossive
Packing Group: II
Proper Shipping Name: Sodium Hydroxide
Hazchem Code: 2R

Marine Transport
classified as Non- Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.
UN No: 1823
Class-Primary: 8 corrossive
Packing Group: II
Proper Shipping Name: Sodium Hydroxide
Hazchem Code: 2R

Air Transport
classified as Non-Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.
UN No: 1823
Class-Primary: 8 corrossive
Packing Group: II
Proper Shipping Name: Sodium Hydroxide
Hazchem Code: 2R

15. REGULATORY INFORMATION

Classification: Hazardous according to criteria of Safe work Australia; HAZARDOUS SUBSTANCE

Hazard Category: Corrosive

Risk Phrases: R35: causes severe burns.
R41: Risk of serious eye damage.

Safety Phrases: S2: Keep out of reach of children.
S3: Keep in a cool place.
S13: Keep away from food, drink and animal foodstuffs.
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Poisons Schedule: 6

16. OTHER INFORMATION

This material safety data sheet has been prepared by Midland Chemicals

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Midland Chemicals cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Midland Chemicals at the contact details on page 1.
Midland Chemical's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.