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| Infosafe No™ | 1CH6F | Issue Date : September 2019 | RE-ISSUED by CHEMSUPP |
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Product Name : **SODIUM HYDROXIDE**

Classified as hazardous

1. Identification

GHS Product Identifier SODIUM HYDROXIDE

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Address 38 - 50 Bedford Street GILLMAN
SA 5013 Australia

Telephone/Fax Number Tel: (08) 8440-2000
Fax: (08) 8440-2001

Emergency phone number CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

Recommended use of the chemical and restrictions on use Acid neutralisation, chemical manufacture, rayon, cellophane, petroleum refining, pulp and paper, aluminium, detergents, soap, cellulose, textile processing, vegetable oil refining, plastics, explosives, dyestuffs, paint and paint remover, metal cleaning, etching and electroplating, reclaiming rubber, regenerating ion exchange resins, organic fusions, peeling of fruits and vegetables in food industry, cleaning products, food additive and laboratory reagent. Note these grades of sodium hydroxide are food grade.

Other Names

| <u>Name</u> | <u>Product Code</u> |
|-----------------------------------|---------------------|
| SODIUM HYDROXIDE Mini Pearl LR | SL000 |
| SODIUM HYDROXIDE Pellet AR | SA178 |
| SODIUM HYDROXIDE Mini Pearl AR | SA000 |
| SODIUM HYDROXIDE Pellet LR | SL178 |
| Caustic soda, Sodium hydrate, Lye | |
| SODIUM HYDROXIDE Mini Pearl TG | ST000 |

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Corrosive to Metals: Category 1
Skin Corrosion/Irritation: Category 1A
Specific Target Organ Toxicity Single Exposure Category 3 (respiratory tract irritation)

Signal Word (s) DANGER

Hazard Statement (s) H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Pictogram (s) Corrosion, Exclamation mark

**Precautionary statement – Prevention**

P234 Keep only in original container.
P260 Do not breathe 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.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.



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| Precautionary statement – Storage | P310 Immediately call a POISON CENTER or doctor/physician. |
| | 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. |
| | P405 Store locked up. |
| | P406 Store in corrosive resistant/... container with a resistant inner liner. |
| Precautionary statement – Disposal | P501 Dispose of contents/container to an approved waste disposal plant. |

3. Composition/information on ingredients

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|-------------------------|------------------|------------|-------------------|----------------------|--------------------|
| Chemical | Solid | | | | |
| Characterization | | | | | |
| Ingredients | <u>Name</u> | <u>CAS</u> | <u>Proportion</u> | <u>Hazard Symbol</u> | <u>Risk Phrase</u> |
| | Sodium hydroxide | 1310-73-2 | 100 % | C | R35 |

4. First-aid measures

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| Ingestion | Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice. |
| Skin | Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek urgent medical assistance. |
| Eye contact | If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention. 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 has 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

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| Hazards from Combustion | May liberate toxic fumes in fire (sodium oxide). |
| Products | |
| Specific Methods | 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. 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

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| Personal Precautions | Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. |
| 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. |



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7. Handling and storage

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| 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 against physical damage. |
| 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 elevated. |

8. Exposure controls/personal protection

| Occupational exposure limit values | Name | STEL | | TWA | | Footnote |
|---|--|--------------|------------|--------------|------------|-----------------|
| | | <u>mg/m3</u> | <u>ppm</u> | <u>mg/m3</u> | <u>ppm</u> | |
| | Sodium hydroxide | | | 2 | | Peak limitation |
| Other Exposure Information | These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. A time weighted average (TWA) has been established for Sodium hydroxide (Safe Work Australia) of 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. These methods should be used in preference to personal protective equipment. | | | | | |
| 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-facepiece 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. | | | | | |
| Hand Protection | Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. | | | | | |
| Personal Protective Equipment | Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards. | | | | | |
| 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. | | | | | |



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9. Physical and chemical properties

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| Form | Solid |
| Appearance | White, deliquescent flakes, pellets or minipeal. |
| 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-combustible. |
| Molecular Weight | 40.01 |
| Other Information | Absorbs water and carbon dioxide from the air. |

10. Stability and reactivity

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| Chemical Stability | Stable under normal use conditons. 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, phophorous, 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 expolusive products with ammonia plus silver nitrate, benzene and benzene sulfonyl chloride, tetrahydrofuran, sodium tetrahydroborate, and trichlorophenol sodium salt plus methyl alcohol plus tichlorobenzene plus heat. |
| Hazardous Polymerization | Will not occur. |

11. Toxicological Information

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| 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 | H335 May cause respiratory irritation. 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, vomiging, 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 deeply. Burns are not immediately painful, onset of pain and irritation may be minutes to hours. |
| Eye | Corrosive. Causes severe burns. Can penetrate deeply. In severe cases, ulceration, permanent impairment of vision and permanent blindness may occur. |
| Carcinogenicity | Not listed in the IARC Monographs. |
| Chronic Effects | Prolongecd contact with dilute solution or dust has destructive effects upon tissue. |
| Mutagenicity | No evidence of mutagenic properties. |

12. Ecological information



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| 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. |

13. Disposal considerations

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| Disposal Considerations | Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations. |
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14. Transport information

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| 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 |
| Packaging Method | 3.8.8 |
| Packing Group | II |
| EPG Number | 8A1 |
| IERG Number | 37 |

15. Regulatory information

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| Regulatory Information | Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. |
| Poisons Schedule | S6 |

16. Other Information

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|---|---|
| Literature References | 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Chemical Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'. Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives. |
| Empirical Formula & Structural Formula | NaOH ...End Of MSDS... |



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Safety Data Sheet

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