AUSTRALIAN CHEMICAL REAGENTS

SAFETY DATA SHEET

Date Prepared: April 2022
Version No: 6

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Nessler's Reagent
Product Code:	0505
Other Names:	Nil
Uses:	Analytical Reagent
Supplier:	Australian Chemical Reagents 38-50 Bedford Street Gillman SA 5013
Contacts:	Telephone: 61 08 84402000 Fax: 61 08 84402001 Emergency Phone: 61 08 84402000 Mon – Fri 8:30am – 5:00pm

2. HAZARDS INFORMATION

GHS Classification

Corrosive to Metals: Category 1
Acute Toxicity - Oral: Category 2
Acute Toxicity – Dermal: Category 2
Skin Corrosion/Irritation: Category 1C
Acute Toxicity – Inhalation: Category 2
Specific Target Organ Toxicity – Repeated Exposure: Category 2
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 3

Signal Word(s) DANGER

Pictogram(s)

Hazard Statement(s)

H290 May be corrosive to Metals.
H300 Fatal if swallowed .
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H314 Causes serve skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

Preventative

P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use in a well ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 Wear respiratory protection.
P273 Avoid release to the environment.

Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor physician.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P361 Remove/Take off immediately all contaminated clothing.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POSION 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.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P363 Wash contaminated clothing before use.
P390 Absorb spillage to prevent material damage.

Storage P406 Store in corrosive resistant container with a resistant inner liner.
P405 Store locked up.

Disposal P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients :

Chemical Entity	CAS No	Proportion
Sodium hydroxide	[1310-73-2]	12%
Mercuric chloride	7487-94-7]	1 - 2%
Potassium iodide	[7681-11-0]	4 %
Water	[7732-18-5]	to 100%

4. FIRST AID MEASURES

Safety showers and eye wash facilities should be provided.

Swallowed :

If conscious wash out mouth with water. Seek medical advice urgently. Show this SDS to medical practitioner.

Eye :

Immediately hold eyelids open and flood with water for at least 15 minutes. Obtain medical aid urgently. Show this SDS to medical practitioner.

Skin :

Remove contaminated clothing. Immediately wash skin thoroughly with water and mild soap. Seek medical advice. Show this SDS to medical practitioner. Launder clothing before reuse.

Inhaled :

Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical assistance. Show this SDS to a doctor.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

Hazards From Combustion Products:

Sodium hydroxide and its solutions will not burn or support combustion. However contact with aluminium, zinc or tin may generate explosive hydrogen gas. Decomposition products include toxic fumes of sodium oxide, hydrogen iodide, hydrogen chloride, mercury / mercury oxides.

Precautions For Fire Fighters and Special Protective Equipment:

Fire fighters and others who may be exposed to combustion products during fire should wear full protective clothing including positive pressure self-contained breathing apparatus (SCBA). Wear SCBA with full face-piece, operated in positive pressure mode when fighting fires.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:
Prevent from entering waterways. Restrict access to area. Remove chemicals that can react with the spilled material. Spills are slippery.

Methods and materials for containment and clean up:
Wear protective clothing. Ventilate area. Use inert material such as sand or earth to contain spill or leak. Absorb spills with chemical absorber or vermiculite, transfer to sealed container and dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Do not get in eyes, on skin, on clothing. Avoid all personal exposure. Wear protective clothing. Do not pipette by mouth.
Conditions for Safe Storage:
Store sealed in original container in a cool well ventilated situation away from foods and other chemicals. Do not store in direct sunlight. Observe good hygiene and housekeeping practices.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:
Safe Work Australia – Sodium hydroxide 2mg/m^3 TWA & Peak Limitation
Mercury, inorganic divalent compounds (as Hg) 0.025 mg/m^3

Biological Limit Values:
HSE (UK) Biological monitoring guidance value – 20umol Hg / mol creatinine in urine

Engineering Controls:
If mists are likely to be generated maintain atmospheric concentrations well below exposure standards with extraction ventilation.

Personal Protective Equipment (PPE):
The use of nitrile or neoprene gloves complying with AS 2161 and the use of faceshield, chemical goggles or safety glasses with side shield protection complying with AS/NZS 1337 is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Clear yellow liquid
Odour:	Nil
pH:	approx 14
Boiling Point (^{0}C) :	Not applicable
Freezing/melting Point:	Not applicable
Vapour Pressure (mm of Hg @ 25^{0}C) :	Not applicable
Vapour Density:	Not applicable
Specific Gravity :	1.1
Flash Point (^{0}C) :	Not flammable
Flammability Limits (%) :	Not flammable
Solubility in Water (g/L) :	Soluble

10. STABILITY AND REACTIVITY

Chemical stability:
Stable.
Conditions to avoid:
Exposure to air. Absorbs carbon dioxide
Incompatible materials:
Acids, organic materials, peroxides, chlorinated solvents, aluminum, phosphorus, tin and zinc.

Hazardous decomposition products:
Refer to section 5 (Fire Fighting Measures).
Hazardous reactions:
Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Effects:
Swallowed : Causes severe burns. Toxic. Ingestion may cause vomiting, diarrhoea, collapse and possibly death. For sodium hydroxide LD50 oral - rabbits 500mg/kg.
Eye : Causes severe burns and possible permanent damage. For sodium hydroxide 100mg rinse produced severe irritation of rabbit eyes.
Skin : Causes severe burns. Corrosive to skin tissue. Causes severe burns with possible ulceration. 500mg of sodium hydroxide produced severe irritation of rabbit skin after 24hrs.
Inhaled : Extremely corrosive to respiratory tissue. Inhalation of mists may be fatal as a result of spasm, inflammation and oedema of the larynx and bronchi, chemical pneumonitis and pulmonary oedema.

Chronic Effects: Cumulative poison. Exposure may affect kidneys, central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Very toxic to aquatic organisms.
Persistence and degradability:
Persistent toxin. May cause long-term adverse effects in the aquatic environment.
Mobility:
No data available.

13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material and container. Observe all federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

UN Number: 2922
UN Proper Shipping Name: Corrosive liquid, Toxic NOS
Class and subsidiary risk(s): 8, 6.1
Packing Group: 11
Hazchem Code: 2X
Special precautions for user : Nil

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP):
Schedule 7

16. OTHER INFORMATION