

Infosafe No™ 3CHC9 Issue Date : August 2021 RE-ISSUED by ACR

Product Name **AMMONIA TEST REAGENT**

Classified as hazardous

1. Identification

GHS Product Identifier AMMONIA TEST REAGENT
Product Code 0935
Company Name AUSTRALIAN CHEMICAL REAGENTS (ACR) (ABN 19 008 264 211)
Address 38 - 50 Bedford Street Gillman
 S.A. 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 Laboratory reagent.
Other Information EMERGENCY CONTACT NUMBER: +61 08 8440 2000
 Business hours: 8:30am to 5:00pm, Monday to Friday.

Australian Chemical Reagents (ACR) 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 Australian Chemical Reagents (ACR) 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 Australian Chemical Reagents (ACR) 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
 Hazardous to the Aquatic Environment - Acute Hazard: Category 1
 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
 Germ Cell Mutagenicity: Category 2
 Reproductive toxicity: Category 2
 Acute Toxicity - Oral: Category 2
 Specific target organ toxicity - Repeated Exposure: Category 1
 Specific target organ toxicity - Single Exposure: Category 3
 Skin Corrosion/Irritation: Category 1A

Signal Word (s) DANGER

Hazard Statement (s) H290 May be corrosive to metals.
 H300 Fatal if swallowed.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.
 H341 Suspected of causing genetic defects.
 H361f Suspected of damaging fertility.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H411 Very toxic to aquatic life with long lasting effects.

Pictogram (s) Skull and crossbones, Corrosion, Health hazard, Environment



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| Precautionary statement – Prevention | <p>P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P234 Keep only in original container. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P281 Use personal protective equipment as required.</p> |
| Precautionary statement – Response | <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. 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. 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. P310 Immediately call a POISON CENTER or doctor/physician. P390 Collect spillage. P308+P313 IF exposed or concerned: Get medical advice/attention.</p> |
| Precautionary statement – Storage | <p>P405 Store locked up. P406 Store in corrosive resistant/... container with a resistant inner liner. P403+P233 Store in a wellventilated place. Keep container tightly closed.</p> |
| Precautionary statement – Disposal | <p>P501 Dispose of contents/container to an approved waste disposal plant.</p> |

3. Composition/information on ingredients

| Ingredients | Name | CAS | Proportion |
|-------------|------------------------------------|-----------|------------|
| | Potassium iodide | 7681-11-0 | 35 % |
| | Mercuric chloride | 7487-94-7 | 25 % |
| | Sodium hydroxide | 1310-73-2 | 12.5 % |
| | Water to make a total of 7732-18-5 | | |
| | 100% | | |

4. First-aid measures

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| Inhalation | If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required. |
| Ingestion | Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Seek medical attention. Treat as for 'Inhalation'. Urgent hospital treatment is likely to be needed. |
| Skin | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Contaminated clothing must be laundered before re-use. Seek medical attention. |
| Eye contact | If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical assistance. |
| First Aid Facilities | Maintain eyewash fountain and safety shower in work area. |
| Advice to Doctor | Treat symptomatically based on judgement of doctor and individual reactions of the patient. |
| Other Information | For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once. |

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5. Fire-fighting measures

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| Suitable extinguishing media | Use appropriate fire extinguisher for surrounding environment. No limitations to the type of extinguishing media. |
| Hazards from Combustion Products | May liberate toxic fumes in fire including: halogen, toxic fumes of mercury, chloride fumes, hydrochloric acid. |
| Specific Methods | Small fire: Use dry chemical, CO2 or water spray. If safe to do so, move undamaged containers from fire area. Large fire: Use dry chemical, CO2, foam or water spray - Do not use water jets. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers. |
| Specific hazards arising from the chemical | Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases. |
| Hazchem Code | 2XE |
| 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 inhalation, contact with skin, eyes and clothing. |
| Personal Protection | Wear protective clothing specified for normal operations (see Section 8) |
| Clean-up Methods - Small Spillages | Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum. |

7. Handling and storage

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| Precautions for Safe Handling | Under no circumstances eat, drink or smoke while handling this material. Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before reuse. All metallic jewellery must be removed. When using do not eat or drink. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. |
| Conditions for safe storage, including any incompatibilities | Store in well ventilated area. Store away from foodstuffs. Keep containers securely sealed and protected against physical damage. Keep container tightly closed and dry, away from direct sunlight and other sources of heat or ignition. |
| Storage Regulations | Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'. Refer Australian Standard AS 3780-1994 'The storage and handling of corrosive substances'. |

8. Exposure controls/personal protection

| Occupational exposure limit values | Name | STEL | | TWA | | Footnote |
|------------------------------------|---|-------|-----|-------|-------|---|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| | Potassium iodide | | | 1 | 0.1 | As Iodine Peak limitation |
| | Mercuric chloride | | | 0.025 | 0.003 | Mercury, inorganic divalent compounds (as Hg) Peak limitation |
| | Sodium hydroxide | | | 2 | | |
| 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 | | | | | |

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|--------------------|--------------------------|------------------|
| Infosafe No™ 3CHC9 | Issue Date : August 2021 | RE-ISSUED by ACR |
|--------------------|--------------------------|------------------|

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| | <p>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.</p> <p>A time weighted average (TWA) has been established for Mercury, inorganic divalent compounds (as Hg) (Safe Work Australia) of 0.025 mg/m³, (0.003 ppm) and for Mercury, elemental vapour (as Hg) (Safe Work Australia) of 0.025 mg/m³, (0.003 ppm).</p> <p>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.</p> <p>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.</p> |
| Appropriate engineering controls | 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. |
| 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. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. |
| Hand Protection | 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. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. |
| 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 an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals. |
| Hygiene Measures | Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. |

9. Physical and chemical properties

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| Form | Liquid |
| Appearance | Liquid |
| Odour | Odourless. |
| Specific Gravity | ~1.09 |
| Flammability | Non combustible material. |

10. Stability and reactivity

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|--------------------|--------------------------|------------------|
| Infosafe No™ 3CHC9 | Issue Date : August 2021 | RE-ISSUED by ACR |
|--------------------|--------------------------|------------------|

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| Chemical Stability | Stable under ordinary conditions of use and storage. |
| Incompatible Materials | Oxidizing agents, metals, acids, alkalis, alkali metals, halogens, strong acids, cadmium, copper, nickel. |
| Hazardous Decomposition Products | Oxides of the contained metal and halogen, possibly also free, or ionic halogen, toxic fumes of mercury, chloride fumes, hydrochloric acid. |
| Hazardous Polymerization | Will not occur. |

11. Toxicological Information

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| Ingestion | Highly Toxic! Average lethal dose for inorganic mercury salts is about 1 gram. May cause burning of the mouth and pharynx, abdominal pain, vomiting, corrosive ulceration, bloody diarrhoea. May be followed by a rapid and weak pulse, shallow breathing, paleness, exhaustion, central nervous system problems, tremors and collapse. Delayed death may occur from renal failure. |
| Inhalation | Causes irritation to the respiratory tract. Symptoms include sore throat, coughing, pain, tightness in chest, breathing difficulties, shortness of breath and headache. Pneumonitis may develop. Can be absorbed through inhalation with symptoms to parallel 'Ingestion'. Vapour inhalation can burn the mucous membrane of the nose and throat. |
| Skin | Causes irritation and burns to skin. Symptoms include redness and pain. May cause skin allergy and sensitization. Can be absorbed through the skin with symptoms to parallel 'Ingestion'. |
| Eye | Causes irritation and burns to eyes. Symptoms include redness, pain, blurred vision; may cause serious and permanent eye damage. Contact with mercury or mercury compounds can cause ulceration of the conjunctiva and cornea. Exposure to mercury or mercury compounds can cause discolouration on the front surface of the lens, which does not interfere with vision. |
| Respiratory sensitisation | Not classified based on available information. |
| Skin Sensitisation | Not classified based on available information. |
| Germ cell mutagenicity | Germ Cell Mutagenicity: Category 2 H341 Suspected of causing genetic defects. |
| Carcinogenicity | Mercury [7439-97-6] and inorganic mercury compounds are evaluated in the IARC Monographs (Vol. 58;1993) as Group 3: Not classifiable as to carcinogenicity to humans. |
| Reproductive Toxicity | Reproductive toxicity: Category 2 H361f Suspected of damaging fertility. |
| STOT-single exposure | Specific target organ toxicity - Single Exposure: Category 3 H335 May cause respiratory irritation. |
| STOT-repeated exposure | Specific target organ toxicity - Repeated Exposure: Category 1 H372 Causes damage to organs through prolonged or repeated exposure. |
| Chronic Effects | Chronic exposure through any route can produce central and peripheral nervous system damage. May cause muscle tremors, personality and behavior changes, ataxia, sensory and memory disturbances, fatigue, muscle weakness, metallic taste, loosening of the teeth, digestive disorders, skin rashes, dermatitis, brain damage and kidney damage. Can cause skin allergies and accumulate in the body. Repeated skin contact can cause the skin to turn gray in colour. |
| Serious eye damage/irritation | H314 Causes severe skin burns and eye damage. |
| Skin corrosion/irritation | Skin Corrosion/Irritation: Category 1A H314 Causes severe skin burns and eye damage. |
| Human Effects | Mercury compounds have a cytotoxic and protoplasmatoxic effect. |
| Other Information | Mercuric chloride is one of the most toxic forms of mercury because it easily forms organomercury complexes with proteins. |

12. Ecological information

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| Ecotoxicity | Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. |
| Bioaccumulative Potential | Very highly bioaccumulative. BCF: 10000 - 40000. |
| Environmental Protection | Do not allow to enter waters, waste water, or soil! |
| Other Information | The toxicity of mercury (II) ions for water organisms depends on the water hardness. |

13. Disposal considerations

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| Disposal Considerations | Dispose 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 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: -Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity. |
| U.N. Number | 2922 |
| UN proper shipping name | CORROSIVE LIQUID, TOXIC, N.O.S. - (Sodium hydroxide, Mercuric chloride) |
| Transport hazard class(es) | 8 |
| Sub.Risk | 6.1 |
| Hazchem Code | 2XE |
| Packing Group | II |
| EPG Number | 8C1 |
| IERG Number | 37 |
| Environmental Hazards | Highly toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment. Has the potential to bioaccumulate. |

15. Regulatory information

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| Regulatory Information | All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. |
| Poisons Schedule | S7 |

16. Other Information

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| Literature References | 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.' Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'. |
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| 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 |
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