Infosafe No™ 3CHC1	Issue Date :June 2021	RE-ISSUED by CHEMSUPP

Product Name **MERCURIC IODIDE Red**

Classified as hazardous

1. Identification

GHS Product Identifier	MERCURIC IODIDE Red
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
Recommended use of the chemical and restrictions on use	Analytical chemistry (Nessler's reagent, Mayer's reagent) topical antiseptic and laboratory reagent.

Other Names

Name	Product Code
Mercury (II) iodide	
MERCURIC IODIDE Red AR	MA074

Other Information

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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

Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Acute Toxicity - Dermal: Category 1
Acute Toxicity - Inhalation: Category 2
Acute Toxicity - Oral: Category 2
Specific target organ toxicity - Repeated Exposure Category 2 (Kidney)

Signal Word (s) DANGER

Hazard Statement (s)

H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H373 May cause damage to organs (kidney) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

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



Precautionary statement – Prevention

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 only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.

	P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P302+P352 IF ON SKIN: Gently wash with plenty of soap and water. P310 Immediately call a POISON CENTER or doctor/physician. P362 Take off contaminated clothing and wash 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. P314 Get medical advice/attention if you feel unwell. P391 Collect spillage.
Precautionary statement – Storage	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Mercuric Iodide red	7774-29-0	100 %

4. First-aid measures

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, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical attention.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. 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.

5. Fire-fighting measures

Hazards from Combustion Products	Toxic fumes of mercury and iodine, hydrogen iodide, mercury/mercury oxides.
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 water spray, fog or foam - 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. Runoff may pollute waterways.
Hazchem Code	2X
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

Spills & Disposal	Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Cover with plastic sheet to prevent spreading. Absorb with earth, sand or other non-combustible material and transfer to container. DO NOT GET WATER INSIDE CONTAINERS. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
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 using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling	Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Contaminated clothing should be removed and washed before reuse. Wash hands and face thoroughly after working with material. When using do not eat, drink or smoke.
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 in a dry, well-ventilated place away from direct sunlight.
Corrosiveness	Attacks many metals, such as copper, silver, brass, bronze and nickel-copper, zinc, lead.
Storage Regulations	Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'.
Unsuitable Materials	Aluminium foil is unsuitable as a packing material in contact with mercury (II) salts in the presence of moisture, when vigorous amalgamation ensures.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Mercuric Iodide red			0.025	0.003	Mercury, inorganic divalent compounds (as Hg)

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 Mercury, alkyl compounds (as Hg) (Safe Work Australia) of 0.01 mg/m³. The corresponding STEL level is 0.03 mg/m³. A time weighted average (TWA) has been established for Mercury elemental vapour (as Hg) (Safe Work Australia) of 0.025 mg/m³, (0.003 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. 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. Note: Absorption through skin may be a significant route of exposure.
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 impervious clothing should be worn. 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. Wash hands thoroughly after handling this material. Remove metallic jewellery. Avoid using metallic tools.

9. Physical and chemical properties

Form	Solid
Appearance	Red crystals or powder, turn yellow when heated to 130°C, returning to red on cooling.
Odour	Odourless.
Melting Point	259 °C.
Boiling Point	349°C
Solubility in Water	Almost completely insolubility (6mg/100g of water at 25°C).
Solubility in Organic Solvents	Readily soluble in alkali iodides. Soluble in boiling alcohol and in solutions of sodium thiosulfate and potassium iodide or other hot alkali chloride solutions. Partially soluble in acetone anf castor oil. Very soluble in alcohol, diethyl ether, olive oil and ethyl acetate. Practically insoluble in chloroform and carbon dissulfide.
Specific Gravity	6.28
Vapour Pressure	100 mm Hg @ 261.8°C.
Vapour Density (Air=1)	16.0
Volatile Component	0%
Flammability	Non combustible material.
Molecular Weight	454.40

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage. Light sensitive.
Conditions to Avoid	Light, heat, incompatibles.

Incompatible Materials	Strong oxidising agents, acetylene aluminium foil, ammonia, chlorine dioxide, azides, calcium, sodium carbide, alkali metals, interhalgons, copper, cyanides, fluorine, hydrogen peroxide, iodoform.
Hazardous Decomposition Products	Oxides of mercury, mercury vapour and hydrogen iodide.
Possibility of hazardous reactions	Reactive with alkalis. Chlorine trifuorine causes reaction with flame. Strong explosion on contact with sodium and potassium.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 18 mg/kg.
Acute Toxicity - Dermal	LD50 (rat): 75 mg/kg.
Ingestion	HFatal if swallowed. 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. Symptoms may be parallel to inhalation.
Inhalation	Fatal if inhaled. Inhalation of the material causes irritation to the respiratory tract by damaging the mucous membranes, experiencing symptoms such as nausea, headache, shortness of breath, coughing, metallic taste, vomiting, abdominal pain. Bloody diarrhoea, intestinal burns, glottal oedema (swelling of fluid in the soft tissues of the larynx), aspiration pneumonia as well as a drop in blood pressure, cardiac dysrhythmia (irregular heart beat), circulatory collapse and renal failure.
Skin	Fatal in contact with skin. Symptoms include redness and pain. May cause burns. Risk of skin sensitization. Can be absorbed through the skin with symptoms to parallel ingestion.
Eye	Causes severe eye irritation. May cause eye burns. May cause eye injury. Contact with eyes causes severe lesions.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Mercury [7439-97-6] and inorganic mercury compounds is evaluated in the IARC Monographs (Vol. 58;1993) as Group 3: Not classifiable as to carcinogenicity to humans. Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Specific target organ toxicity - Repeated Exposure Category 2 (Kidney) H373 May cause damage to organs (kidney) through prolonged or repeated exposure.
Chronic Effects	Chronic exposure through any route can produce central nervous system damage. May cause muscle tremors, personality and behavior changes, CNS effects (impaired speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia), metallic taste, loosening of the teeth, digestive disorders, skin rashes, 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.
Mutagenicity	Not classified based on available information.

12. Ecological information

Ecotoxicity	Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. The toxicity of mercury (II) ions for water organisms depends on the water hardness.
Bioaccumulative Potential	This substance is expected to significantly bioaccumulate.
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Daphnia	Daphnia magna EC50: 0.0052 mg/l/48hr (Hg (II)ions)

13. Disposal considerations

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

14. Transport information

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	1638
UN proper shipping name	MERCURY IODIDE
Transport hazard class(es)	6.1
Hazchem Code	2X
Packing Group	II
EPG Number	6A5
IERG Number	34
Environmental Hazards	Highly toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

15. Regulatory information

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

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'.
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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Empirical Formula & Structural Formula

HgI_2

...End Of MSDS...