Infosafe No™	1CHJC	Issue Date : July 2018	RE-ISSUED by CHEMSUPP

Product Name : **IODOMETHANE**

Classified as hazardous

1. Identification

GHS Product Identifier IODOMETHANE

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

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Recommended use of the chemical and restrictions on use Organic synthesis, microscopy, testing for pyridine, component in fire extinguishers, methylating agent, light sensitive etching agent for electronic circuits and laboratory reagent.

Other Names

Name	Product Code
Methyl iodide	
IODOMETHANE LR	IL039

Other Information EMERGENCY CONTACT NUMBER: +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

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
Carcinogenicity: Category 2
Acute Toxicity - Inhalation: Category 3
Acute Toxicity - Oral: Category 3
Eye Damage/Irritation: Category 1
Skin Corrosion/Irritation: Category 2
Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)

Signal Word (s) DANGER

Hazard Statement (s)
H301 Toxic if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

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

Precautionary statement – Prevention
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.

Precautionary statement – Response
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

	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. 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. P308+P313 IF exposed or concerned: Get medical advice/attention.
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

Chemical Characterization Liquid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Methyl iodide	74-88-4	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 advice.
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 drench facilities 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

Specific hazards arising from the chemical	Non combustible. Fire or heat will produce irritating, poisonous and/or corrosive gases. Runoff may pollute waterways.
Hazchem Code	2X
Decomposition Temp.	270 °C
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.
Extinguishing Media - Small Fires	Usr dry chemical, CO2, alcohol resistant foam or water spray.

6. Accidental release measures

Spills & Disposal	Ventilate area of leak or spill. Do NOT touch or walk through this product. 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, confined areas. Cover with plastic sheet to minimize 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 inhalation and ingestion. Avoid contact with skin, eyes and clothing. Ventilate contaminated area thoroughly.

Personal Protection	Wear appropriate personal protective equipment as specified in 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.
Clean-up Methods - Large Spillages	Seek expert advice on handling and disposal.
Environmental Precautions	Prevent contamination of soil and water.

7. Handling and storage

Precautions for Safe Handling	Do not breathe (dust, vapor or spray mist) Do not use in areas without adequate ventilation. Keep container closed when not in use. Wear suitable protective clothing, including gloves.
Conditions for safe storage, including any incompatabilities	Store away from oxidizing agents. Store away from sources of heat or ignition. Keep containers closed at all times. Do not store in unsuitable, unlabelled or incorrectly labelled containers. Keep container tightly closed and in a well-ventilated place. Store away from bases. Protect from light.
Storage Regulations	Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'.

8. Exposure controls/personal protection

Occupational exposure limit values	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 methyl iodide (Safe Work Australia) of 12 mg/m3, (2 ppm). 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 sufficient ventilation is not available, avoid breathing dusts by wearing an AS 1716 approved P1 or P2 particulate filter respirator. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices. An approved respirator must be worn if the occupational exposure limit is likely to be exceeded. If significant mists, vapours or aerosols are generated an approved respirator is recommended, selected and used in accordance with AS/NZS 1715 and AS/NZS 1716. 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	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Recommendation: laminated film, viton (consider your own risk assessment, e.g. breakthrough times, rates of diffusion and degradation, tasks under taken).
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

Form	Liquid
Appearance	Colourless liquid, turns brown on exposure to light.
Odour	Acrid odor.
Decomposition Temperature	270 °C
Melting Point	-66.1 °C
Boiling Point	42 °C
Solubility in Water	14.0 g/100g at 20°C
Solubility in Organic Solvents	Soluble in alcohol, chloroform and ether.
Specific Gravity	2.24-2.27
Vapour Pressure	400 mm Hg @ 25 °C
Vapour Density (Air=1)	4.9
Partition Coefficient: n-octanol/water	log Pow: 1.5 at 20°C.
Flammable Limits - Lower	8.5%
Flammable Limits - Upper	66%
Molecular Weight	141.94

10. Stability and reactivity

Chemical Stability	Stable at room temperature in sealed containers, stabilised with copper foil. Turns yellow, red, or brown on exposure to light, due to decomposition and liberation of free iodine. Decomposes at 270°C.
Conditions to Avoid	Risk of explosion with phosphines, sodium.
Incompatible Materials	Strong oxidisers, strong bases, powdered metals, mercury, mercury oxides, oxygen and silver salts.
Hazardous Decomposition Products	Oxides of carbon, hydrogen iodide gas and iodide.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Toxicology Information	Oral LD50 (rat): 76 mg/kg; LD50 s.c. (mouse): 0.78 mmol/kg - International Agency for Research on Cancer (IARC), 1986.
Ingestion	Ingestion may damage the gastro-intestinal tract. Severe intoxication can occur with symptoms of central nervous system depression. Coma, convulsions, and death may follow.
Inhalation	Inhalation of vapors can irritate the respiratory tract. Overexposure may produce symptoms of vertigo, delirium and mental disturbances. Other symptoms may include slurred speech, drowsiness, coughing, nausea and vomiting. Higher exposures can cause a build up of fluid in the lungs which can cause death. 'Acute inhalation exposure of humans to methyl iodide has resulted in nausea, vomiting, vertigo, ataxia, slurred speech, drowsiness, skin blistering, and eye irritation' (US EPA, 2000).
Skin	Causes irritation, rash and blister formation. Prolonged contact can cause skin burns. Can be absorbed through skin with toxic effects.
Eye	Vapors can cause irritation. Splashes may cause severe irritation with eye damage.
Skin Sensitisation	Based on the available data, the chemical is not expected to be a skin sensitiser.
Carcinogenicity	IACR - Category 3. Substances suspected of having carcinogenic potential are those substances which have possible carcinogenic effects on humans but in respect of which the available information is not adequate for making a satisfactory assessment. There is some evidence from appropriate animal or epidemiological studies, but this is insufficient to place the substance in Category 2. The chemical is classified as hazardous—Category 3 carcinogenic substance—with the risk phrase 'Limited evidence of carcinogenic effect' (Xn; R40) in HSIS (Safe Work Australia). Based on the available experimental data, there is conflicting evidence on the chemical's ability to induce cancers in

	humans, which is insufficient to amend the classification.
Reproductive Toxicity	Based on the information available, the chemical is not considered to have specific reproductive or developmental toxicity.
Chronic Effects	Prolonged or repeated exposure to smaller doses cause primarily central nervous system effects. Symptoms may include slurred speech, blurred vision, Parkinsonian rigidity and memory defects. Has been shown to cause cancer in animals and may be linked to cancer in humans.
Respiratory Irritation	H335 May cause respiratory irritation.
Skin corrosion/irritation	H318 Causes serious eye damage.
Other Information	Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance. NICNAS - Methane, iodo-: Human health tier II assessment

12. Ecological information

Ecotoxicity	Quantitative data not avaliable.
Environmental Fate	When released into the soil, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life of greater than 30 days. This material has an estimated bioconcentration factor (BCF) of less than 100. When released into the air, this material may be moderately degraded by photolysis.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and 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	2644
UN proper shipping name	METHYL IODIDE
Transport hazard class(es)	6.1
Hazchem Code	2X
Packing Group	I
EPG Number	6A3
IERG Number	34

15. Regulatory information

Regulatory Information	Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. Listed in the Australian Inventory of Chemicals Substances (AICS).
Poisons Schedule	S7

16. Other Information

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 fot 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 Substances 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.
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