



Infosafe No™ 1CH4K Issue Date : October 2020 RE-ISSUED by CHEMSUPP

Product Name **METHYLENE BLUE**

Classified as hazardous

1. Identification

GHS Product Identifier METHYLENE BLUE

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

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Recommended use of the chemical and restrictions on use Medicine, dyeing cotton and wool, biological and bacteriological stains, reagent in oxidation-reduction titrations in volumetric analysis and indicator.

Other Names**Name****Product Code**

METHYLENE BLUE LR
C.I. Basic blue 9, C.I. 52015,
Methylthionine chloride,
Tetramethylthionine chloride, Solvent
blue 8, Urolene blue,
3,7-bis(Dimethylamino)phenazathionium
chloride

ML045

Additional Information

Do not confuse with methyl blue.

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 Acute Toxicity - Oral: Category 4

Signal Word (s) WARNING

Hazard Statement (s) H302 Harmful if swallowed.

Pictogram (s) Exclamation mark



Precautionary statement - Prevention P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Precautionary statement - Response P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.



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P330 Rinse mouth.

3. Composition/information on ingredients**Information on Composition** Derived by the oxidation of p-amino-dimethylaniline with ferric chloride in the presence of hydrogen sulfide.

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Methylene blue	61-73-4	100 %

Other Information Colour change: oxidised - blue; reduced - colourless.**4. First-aid measures****Inhalation** If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.**Ingestion** Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Give water to drink. DO NOT INDUCE VOMITING. Seek medical advice if symptoms persist.**Skin** Wash affected areas with copious quantities of water immediately. Seek medical advice if effects persist.**Eye contact** Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If persistent irritation occurs, obtain medical attention.**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.**5. Fire-fighting measures****Hazards from Combustion Products** Development of hazardous combustion gases or vapours possible in the event of fire.**Specific Methods** Small fire: Use dry chemical, CO₂, water spray or foam.
Large fire: Use water spray, fog or foam.**Specific hazards arising from the chemical** May burn but do not ignite readily. Runoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive fumes.**Decomposition Temp.** 180 °C**Precautions in connection with Fire** Wear SCBA and structural firefighter's uniform.**6. Accidental release measures****Personal Precautions** 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.**7. Handling and storage****Precautions for Safe Handling** Avoid substance contact and generation and inhalation of dust.**Conditions for safe storage, including any incompatibilities** Keep container tightly closed and dry, away from direct sunlight. Store at room temperature (15 - 25 °C).**8. Exposure controls/personal protection****Other Exposure Information** No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise



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	specified is 10 mg/m ³ . All atmospheric contamination should be kept to as low a level as is workable. 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.
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	Usually is not required. Where protection is required from nuisance levels of dust or mists select respiratory protection that complies with AS 1716 - Respiratory Protective Devices and select in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels.
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.
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.

9. Physical and chemical properties

Form	Solid
Appearance	Dark-green crystals or powder with bronze-like lustre. Water solutions are deep blue.
Odour	Odourless or slight odour.
Decomposition Temperature	180 °C
Melting Point	~180 °C (decomposes)
Solubility in Water	Soluble (2 g/L @ 20 °C)
Solubility in Organic Solvents	Soluble in alcohol and chloroform. Insoluble in ether.
Specific Gravity	1 g/cm ³
pH	pH of 1% solution: 3.8
Flammability	Combustible.
Molecular Weight	319.9 (Anhydrous)

10. Stability and reactivity**Chemical Stability** Stable under normal use conditons.



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Conditions to Avoid	Heating.
Incompatible Materials	Concentrated acids, strong oxidising agents, strong bases, and reducing agents.
Hazardous Decomposition Products	Toxic hydrogen sulfide gas, sulfur oxides, nitrogen oxides, hydrochloric acid and carbon oxides.
Possibility of hazardous reactions	Contact with concentrated acids can give rise to toxic hydrogen sulfide gas.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 1180 mg/kg (anhydrous substance).
Ingestion	Harmful if swallowed. Large doses may cause nausea, abdominal and chest pain, headache, dizziness, mental confusion, profuse sweating and irritation of the urinary tract and bladder.
Inhalation	Dust may cause irritation.
Skin	Will stain skin blue. Prolonged contact may give rise to irritation.
Eye	May cause irritation and colouration. Risk of serious damage to eyes.
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	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	Not classified based on available information.
Health Hazard	Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Exposure can cause: stomach pains, nausea, vomiting, diarrhea, dizziness and headache.
Mutagenicity	Not classified based on available information.

12. Ecological information

Ecological Information	No ecology data available for this product.
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Other Information	To the best of our knowledge the substance has not been fully investigated for its impact on the environment. Has mild antiseptic properties, generally not considered dangerous to the environment, however will leave intense blue colour if allowed to come into contact with the environment. Solution of this product has been used for treatment of sick aquarium fish.

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.
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14. Transport information



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Transport Information	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG); by the IATA Air Transport Dangerous Goods Regulations; or by the IMDG (International Maritime Dangerous Goods) Code.
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15. Regulatory information

Regulatory Information	All of the significant ingredients in this formulation are compliant with Australian Industrial Chemicals Introduction Scheme (AICIS) regulations. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

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'.
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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 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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Empirical Formula & Structural Formula	C16H18ClN3S.xH2O
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