Safety Data Sheet

Date of Issue: 01.10.2020 Date of Expiry: 01.10.2025

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Distributor Name : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
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Emergency phone number : 0800 243 622 (24 hours)

Product	**Methylene Blue**			**Code**	**33308**
CAS#	**HSNO#**	**UN #**	**DG Class/es**	**Packing group #**	
61-73-4	HSR003661	-	-	-	

Recommended use : Laboratory Investigations

2: Hazards identification

Environmental Protection Authority (New Zealand)

Classification 6.4A	Irritating to the eye
Classification 9.1C (All)	Harmful in the aquatic environment
Classification 9.1C (F)	Harmful in the aquatic environment

Acute toxicity, Oral (Category D)
Skin irritation (Category A)
Eye irritation (Category A)

GHS Label elements, including precautionary statements
Hazard Pictogram

Signal Word : **Warning**

Hazard statement(s)
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s)
Prevention
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves.

Response
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

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

2.3 Other hazards - none

3: Composition/information on ingredients

Substance / Mixture : Substance
3.1 Substances
Synonyms : Tetramethylthionine chloride
3,7-bis(Dimethylamino)phenazathionium chloride
Basic Blue 9
Formula : C16H18ClN3S.xH2O
Molecular weight : 319.85 g/mol
CAS-No. : 122965-43-9
EC-No. : 200-515-2

Hazardous ingredients

Component	Classification	Concentration
Methylthioninium chloride		
	6.1 D; 6.3 A; 6.4 A; H302, H315, H319	<= 100 %

4: First aid measures

4.1 Description of first-aid measures
General advice

If inhaled
After inhalation: fresh air.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact
After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed
After swallowing immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides
Hydrogen chloride gas
Combustible.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters
In the event of fire, wear self-contained breathing apparatus.

5.4 Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Tightly closed. Dry.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with workplace control parameters
We are not aware of any national exposure limit.

8.2 Exposure controls
Appropriate engineering controls
Change contaminated clothing. Preventive skin protection recommended. Wash hands

after working with substance.

Personal protective equipment
Eye/face protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	A dark greenish, almost odourless, hygroscopic crystalline powder with a metallic lustre.
Melting Point	190°C
Boiling Point	Not applicable
Solubility in Water	Soluble (1g/25mL).
Specific Gravity	1.23
pH Value	3-5 (1% aqueous solution)
Vapour Pressure	Not applicable
Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not applicable
Flash Point	Not flammable
Flammability	Not flammable. Decomposes on heating emitting toxic fumes.
Auto-Ignition Temperature	Not available
Flammable Limits - Lower	Not applicable

10: Stability and reactivity

10.1 Reactivity
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid

no information available

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects

Toxicology Information	Acute toxicity: LD50 (Oral, Rat): 1180 mg/kg
Inhalation	May cause irritation to the respiratory tract. Overexposure to high concentrations of dust may have symptoms similar to those of ingestion.
Ingestion	Harmful if swallowed. Ingestion may cause irritation to the gastrointestinal system with nausea, abdominal pain, headache, mental confusion, profuse sweating and methemoglobinemia (deficient oxygenation of blood). Other symptoms of methemoglobinemia such as cyanosis (blueish discolouration of skin), lethargy, dizziness, fatigue, CNS depression and shock may be observed.
Skin	May be irritating in contact with skin. Can be absorbed through skin resulting in adverse systemic effects, similar to those of ingestion.
Eye	Irritating to eyes. May cause severe irritation in contact with eyes, resulting in inflammation, stinging and blurred vision. Prolonged contact may cause corneal damage.
Chronic Effects	May cause adverse reproductive effects. Chronic exposure to dust by inhalation may lead to respiratory disorders, or it may aggravate existing respiratory disorders such as emphysema and chronic bronchitis. Prolonged or repeated skin contact may lead to dermatitis in some individuals.
Reproductive Toxicity	Experimental animal studies showed that first trimester exposure to methylene blue may cause adverse reproductive effects.

12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
No data available

13: Disposal considerations

Waste Disposal
The spilled or waste material must be disposed of in accordance with relevant regulations.

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	**UN Number**	-	-	-
14.2	**UN Proper Shipping name**	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	**Transport Hazard Class**	-	-	-
14.4	**Packaging group**	-	-	-
14.5	**Environmental Hazards**	No	No	No
14.6	**Special precautions for user**	none		
14.7	**Incompatible materials**	Strong oxidizing agents		

15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information
HSNO Approval Code: HSR003661
HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006
Tracking Required: not required, not required
Approved Handler Cert.: not required

Notification status
AICS : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL
ENCS : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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