MATERIAL SAFETY DATA SHEET
Methylene Blue

Date of Issue: September 06

STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of Worksafe Australia

COMPANY DETAILS

Company:	**ProSciTech**
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IDENTIFICATION SECTION

Product Name	Methylene Blue
Other Names	Basic Blue 9, C.I. 52015; trihydrate; Methylene blue trihydrate; 3, 7-Bis(dimethylamino) phenazathionium chloride trihydrate.
Product Code	C124, C1241, C1245
U.N. Number	None allocated
Dangerous Goods Class and Subsidiary Risk	None allocated
Hazchem Code	None allocated
Poison Schedule	None allocated
Use	General stain for animals, histology

Physical Description and Properties

Appearance	Odourless dark green crystals with a brown lustre
Boiling Point/Melting Point	MP 190°C
Vapour Pressure	No data
Specific Gravity	No data
Flash Point	No data
Flammability Limits	Not determined
Solubility in water	1g in 25ml water

Other Properties

Ingredients

Chemical Name	CAS Number	Proportion
$C_{16}H_{18}ClN_3S.3H_2O$	7220-79-3	100%

HEALTH HAZARD INFORMATION

Health Effects:

Acute

Swallowed: A burning sensation of the mouth may be noted following ingestion of methylene blue. May cause nausea, vomiting, diarrhea, and gastritis. Large doses may cause abdominal and chest pain, headache, profuse sweating, mental confusion, painful micturation, and methemoglobinemia.

Eye: No adverse effects expected. May cause mechanical irritation.

Skin: Not expected to be a hazard from skin exposure. Methylene blue may colour the skin a bluish colour. May cause photosensitization.

Inhaled: No adverse health effects expected from inhalation. May cause a short period of rapid or difficult breathing.

Chronic: No information found.

First Aid:

Swallowed: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Inhaled: Remove to fresh air. Get medical attention for any breathing difficulty.

First Aid Facilities: Eye bath, safety shower

Advice to Doctor Treat symptomatically and supportively.

PRECAUTIONS FOR USE

Exposure Standards: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Engineering Controls: Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible

Personal Protection: Not expected to require personal respirator usage. For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Wear protective gloves and clean body-covering clothing. Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Flammability: Not flammable under conditions of use

SAFE HANDLING INFORMATION

Storage and Transport: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Protect against physical damage. Avoid dust formation and control ignition sources. Isolate from incompatible substances. Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

Spills and Disposal: Remove all sources of ignition. Ventilate area of leak or spill. Clean-up personnel may require protection from inhalation of dust. Spills: Clean up spills in a manner that does not disperse dust into the air. Use nonsparking tools. Pick up spill for recovery or disposal and place in a

closed container. Disposal: Whatever cannot be saved for recovery may be burned in an approved incinerator or disposed of in an approved waste facility.

Fire/Explosion Hazard: As in any fire, wear a self-contained breathing apparatus in pressure-demand and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media most appropriate for the surrounding fire. Methylene blue does not burn; it is not considered to be a fire hazard.

OTHER INFORMATION

Incompatibilities (Materials to avoid) Caustic alkali, dichromates, strong oxidising agents, alkali iodides, strong reducing agents.

Animal Toxicity Data: Oral rat LD50: 1180mg/kg Mutation references cited. Animal reproductive effects cited.

The information published in this Material Safety Data Sheet has been compiled from data in various technical publications. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. We reserve the right to revise material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.