Material Data Safety Sheet

NIPISSING UNIVERSITY

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Methylene Blue solution

Synonym: Methylthioninium chloride

Manufacturer/Supplier: Generic (No Company Label)

CANUTEC 24-HR EMERGENCY RESPONSE NUMBER: 613-996-6666

CANUTEC should only be called in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals

Section 2 - Composition/Information on Hazardous Ingredients

+ - **Add/Remove Component**

Component Name	CAS Number	Mol Formula	Mol Wt.	% by Weight
Methylthioninium chloride	61-73-4	C16H18ClN3S.3H2O		
Water	7732-18-5	H2O		

Section 3 - Hazards Identification

Emergency Overview

Caution! Toxic Material Causing Other Toxic Effects - Moderate eye irritant
Target Organs: Blood, Central nervous system, Eyes

Potential Health Effects

NFPA Rating: Health 2* Flammability 0 Reactivity 0 Oxidizer? No

* denotes additional chronic hazards present

Eyes: Causes eye irritation.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Ingestion: Harmful if swallowed.

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Chronic:

Notes to Physician:

Section 4 - First Aid Measures

General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation:	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
Eye Contact:	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.
Skin Contact:	Wash off with soap and plenty of water. Consult a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information:	Wear self contained breathing apparatus for fire fighting if necessary.
Extinguising Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Auto-Ignition Temperature:	No data available
Flash Point:	No data available
Explosion Limits: Lower:	No data available
Explosion Limits: Upper:	No data available

Section 6 - Accidental Release Measures

General Information:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Spills/Leaks:	Do not let product enter drains. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Handling Precautions:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Storage Requirements:	Keep container tightly closed in a dry and well-ventilated place.

Section 8 - Exposure Controls / Personal Controls

Engineering Controls:	Use mechanical exhaust or laboratory fumehood to avoid exposure. Safety shower and eye bath.
Ventilation:	
Administrative Controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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 such as NIOSH (US) or

CEN (EU).

Protective Clothing/Equipment: Hand 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.
Eye protection - Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and 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.

Safety Stations:

Contaminated Equipment:

Comments: Contains no substances with occupational exposure limit values

Section 9 - Physical and Chemical Properties

Physical State:	liquid	Boiling Point	Unknown
Colour:	N/A	Freezing/Melting Point:	Unknown
Odour:	N/A	Decomposition Temperature:	Unknown
pH:	N/A	Solubility in Water:	Unknown
Vapour Pressure:	N/A	Specific Gravity/Density:	Unknown
Vapour Density:	N/A	Evaporation Rate:	N/A
Viscocity:	N/A	Other:	

Section 10 - Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.

Conditions to Avoid: None Reported

Incompatibility with Other Materials: None Reported

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas

Hazardous Polymerization: Will Not Occur

Section 11 - Toxicological Information

RETCS#: N/A

LD50 / LC50: Acute toxicity
Oral LD50 - no data available
Inhalation LC50 - no data available
Dermal LD50 - no data available

Other information on acute toxicity - no data available
Skin corrosion/irritation - no data available
Serious eye damage/eye irritation - no data available
Respiratory or skin sensitization - no data available
Germ cell mutagenicity - no data available
Reproductive toxicity - no data available
Teratogenicity - no data available
Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available
Aspiration hazard - no data available
Potential health effects -
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion Harmful if swallowed.
Skin Harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Signs and Symptoms of Exposure
Symptoms - no data available
Synergistic effects - no data available

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Other: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicology: Toxicity - no data available
Persistence and degradability - no data available
Bioaccumulative potential - no data available
Mobility in soil - no data available
PBT and vPvB assessment - no data available
Other adverse effects - no data available

Other: N/A

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, provincial and local regulations. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging - Dispose of as unused product.

Section 14 - Transportation Information

Canada TDG

Shipping Name: Not Dangerous Goods

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

Canadian Regulations

	DSL Status - All components of this product are on the Canadian DSL list. WHMIS Classification - This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16 - Other Information

MSDS Creation Date: Mar 12, 2012

Revision Number:

MSDS Revision Date:

Revisions were made to Sections: N/A

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Nipissing University Office of Laboratory Safety

Anne Brule

Digitally signed by Anne Brule
DN: cn=Anne Brule, o=Nipissing University, ou=Office of Laboratory Safety, email=ambrule756@community.nipissingu.ca, c=CA
Date: 2012.03.12 16:20:29 -04'00'