

# Safety Data Sheet

## Methylene Blue Solution

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Methylene Blue Solution  
**Recommended Use:** Science education applications  
**Synonyms:** Methylene Blue Chloride, Aqueous Solution  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**GHS Classification:**

**Other Safety Precautions:** Not a dangerous substance according to GHS classification criteria.  
No known OSHA hazards.

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	99.08
Methylthioninium chloride (Methylene blue)	61-73-4	0.02

### Section 4 First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** N/A  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Remove soiled clothing and launder before reuse.  
Absorb the liquid and scrub the area with detergent and water. Pick up wash liquid with additional absorbent and place in a disposable container.

### Section 7 Handling and Storage

**Handling:** Do not ingest or take internally.  
**Storage:** Keep container tightly closed in a cool, well-ventilated place.  
Suitable for any general chemical storage.

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Storage Code: Green - general chemical storage

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

### Control Parameters

#### Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use.

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Natural rubber, Neoprene, PVC or equivalent.

## Section 9 Physical Data

Formula: N/A

Molecular Weight: N/A

Appearance: Blue Liquid

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point: 0 C

Boiling Point: 100 C

Flash Point: No data available

Flammable Limits in Air: N/A N/A

Vapor Pressure: Approx. 17.535 at 20 °C

Evaporation Rate (BuAc=1): 1

Vapor Density (Air=1): Approx. 0.7

Specific Gravity: 1

Solubility in Water: Soluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: 10

Percent Volatile by Volume: 0%

## Section 10 Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

None known.

Incompatible Materials:

Water-reactive materials

Hazardous Polymerization:

Will not occur

## Section 11 Toxicity Data

Routes of Entry: Inhalation, ingestion, eye or skin contact.

Symptoms (Acute): N/A

Delayed Effects: No data available

### Acute Toxicity:

Chemical Name

CAS Number

Oral LD50

Dermal LD50

Inhalation LC50

Water

7732-18-5

Methylthioninium chloride (Methylene blue)

61-73-4

### Carcinogenicity:

Chemical Name

CAS Number

IARC

NTP

OSHA

No data available

Not listed

Not listed

Not listed

### Chronic Effects:

Mutagenicity:

No evidence of a mutagenic effect.

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**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** See Section 2  
**Chronic:** Mutation data cited., Reproductive data cited., Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12

## Ecological Data

**Overview:** This material is not expected to be harmful to the ecology. Keep out of waterways.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

<b>Chemical Name</b>	<b>CAS Number</b>	<b>Eco Toxicity</b>
Water	7732-18-5	No data available

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

## Section 14

## Transport Information

<b>Ground - DOT Proper Shipping Name:</b> N/A	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
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## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

<b>Chemical Name</b>	<b>CAS Number</b>	<b>§ 313 Name</b>	<b>§ 304 RQ</b>	<b>CERCLA RQ</b>	<b>§ 302 TPQ</b>	<b>CAA 112(2) TQ</b>
No data available		No	No	No	No	No

## Section 16

## Additional Information

**Revised:** 08/26/2014

**Replaces:** 08/21/2014

**Printed:** 04-21-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health