

# Methylene Blue Trihydrate

## 1% Aqueous Solution

### Section 1

### Product Description

**Product Name:** Methylene Blue Trihydrate 1% Aqueous Solution  
**Brand:** 61-73-4, (Sub-brand 7220-79-3)  
**Recommended Use:** Laboratory reagent / Science education applications  
**Synonyms:** Methylene Blue Solution, Basic Blue 9 solution, C.I. #52015 solution  
**Distributor:** POSADA RD LLC  
132 Hasting Ave, Rutherford, NJ  
Email: info@61-73-4.com  
Phone: 732-800-2372

**Note:** This product is a dilution of Methylene Blue Trihydrate purchased from:  
Quantum Innovation Labs PMB9031  
199 Harrison St, Suite 1800, Oakland, CA 94612, United States  
support@quantuminnovationlabs.com  
Quantum Innovation Labs

**Chemical Information Contact (Original Vendor):** support@quantuminnovationlabs.com  
**Emergency Contact 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:**

Acute Toxicity - Oral Category 5

**Other Safety Precautions:** May be harmful if swallowed

### Section 3

### Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	98.8
Methylene Blue Trihydrate	7220-79-3	1
Sodium Benzoate	532-32-1	0.2

### 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 dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6

### Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Avoid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

**Methods for Clean-up**

# Safety Data Sheet

## Section 7

## Handling and Storage

**Handling:** Keep container tightly closed in a cool, well-ventilated place.  
**Storage:** N/A  
**Storage Code:** Green - general chemical storage

## Section 8

## Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Methylene Blue Trihydrate	N/A	N/A	N/A	N/A
Sodium Benzoate	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:** Nitrile

## Section 9

## Physical Data

**Formula:** C<sub>16</sub>H<sub>18</sub>ClN<sub>3</sub>S · 3H<sub>2</sub>O  
**Molecular Weight:** 373.92 g/mol  
**Appearance:** Colorless Powder **Odor:** None  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** No data available  
**Boiling Point:** 100 C  
**Flash Point:** No data available  
**Flammable Limits in Air:** N/A N/A

**Vapor Pressure:** N/A  
**Evaporation Rate (BuAc=1):** N/A  
**Vapor Density (Air=1):** N/A  
**Specific Gravity:** N/A  
**Solubility in Water:** Practically Insoluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**Percent Volatile by Volume:** N/A

## Section 10

## Reactivity Data

**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Elevated temperatures  
**Incompatible Materials:** Water-reactive materials, Caustics (bases), Strong reducing agents, Dichromates, Alkali Iodides, Strong oxidizing agents  
**Hazardous Polymerization:** Will not occur

# Safety Data Sheet

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation and ingestion.  
**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	Oral LD50 Rat 90000 C Oral LD50 Rat 90000 mg/kg		
Methylene Blue trihydrate	7220-79-3	Oral LD50 Rat 1180 mg/kg Oral LD50 Mouse 3500 mg/kg		
Sodium Benzoate	532-32-1	Oral LD50 Rat 2100 mg/kg		

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Methylene Blue trihydrate	7220-79-3	Not listed	Not listed	Not listed
Sodium Benzoate	532-32-1	Not listed	Not listed	Not listed

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**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:** 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.  
**Mobility:** No data Adsorbs to soil. No data No data No data  
**Persistence:**  
**Bioaccumulation:**  
**Degradability:**  
**Other Adverse Effects:**

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Sodium Benzoate	532-32-1	Aquatic LC50 (96h) Fathead Minnow > 100 MG/L Aquatic EC50 (48h) Daphnia < 650 MG/L

## 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

**Ground - DOT Proper Shipping Name:** Not regulated for transport by DOT  
**Air - IATA Proper Shipping Name:** Not regulated for air transport by IATA.

# Safety Data Sheet

## Section 15

## Regulatory Information

**TSCA Status:**

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Methylene Blue trihydrate	7220-79-3	No	No	No	No	No
Sodium Benzoate	532-32-1	No	No	No	No	No

**California Prop 65:**

No California Proposition 65 ingredients

## Section 16

## Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. POSADA RD LLC 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. The original SDS for the undiluted material was obtained from Quantum Innovation Labs PMB9031.

**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