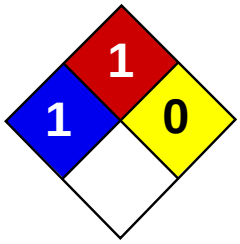

Health	1
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet
Methylene Blue Chloride MSDS

Section 1: Chemical Product and Company Identification

Product Name: Methylene Blue Chloride

Catalog Codes: SLM3934

CAS#: 7220-79-3 or 61-73-4 [anhydrous]

RTECS: SO5600000

TSCA: TSCA 8(b) inventory: No products were found.

CI#: 52015

Synonym: Basic Blue 9; 3,7-bis(Dimethylamino)phenothiazin-5-ium Chloride; Methylene Blue Trihydrate

Chemical Name: Methylene Blue trihydrate

Chemical Formula: C16-H18-N3-S-Cl.3H2O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Methylene Blue Chloride	7220-79-3	100

Toxicological Data on Ingredients: Methylene Blue [anhydrous; CAS no. 61-73-4]: ORAL (LD50): Acute: 1180 mg/kg [Rat]. 3500 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion:
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), sulfur oxides (SO2, SO3...), halogenated compounds.

Fire Hazards in Presence of Various Substances:
Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards:
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents, alkalis.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid. Powdered solid.)

Odor: Slight.

Taste: Not available.

Molecular Weight: 373.9 g/mole

Color: Green. (Dark.)

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 190°C (374°F)

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility:
Soluble in cold water. Soluble in chloroform. Sparingly soluble in alcohol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, light, air, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, reducing agents, alkalis.

Corrosivity: Not available.

Special Remarks on Reactivity:
Light Sensitive. Air Sensitive. Also incompatible with caustic alkali, dichromates, alkali iodides.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals:
Methylene Blue [anhydrous; CAS no. 61-73-4]: Acute oral toxicity (LD50): 1180 mg/kg [Rat].

Chronic Effects on Humans: MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (female fertility - post implantation mortality; male fertility - inhibition of sperm motility) based on animal data. No human data found. May affect genetic material (mutagenic). Methylene Blue is used as as color marker on skin , in tissue or amniotic fluid. It may be teratogenic via intraamniotic injection.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. It may color the skin a bluish color. Eyes: Dust causes eye irritation. It may cause corneal and conjunctival injury. Inhalation: Dust may cause respiratory tract irritation. No expected health hazard via inhalation during normal industrial handling. Ingestion: May be harmful if swallowed. Ingestion of large doses may cause gastrointestinal tract irritation, burning sensation mouth, nausea, vomiting, diarrhea, abdominal pain. May affect blood (hemolytic anemia, hyperbilirubinemia, methemoglobinemia), metabolism (weight loss). Other symptoms of overdose may include anxiety, chest pain, confusion, dizziness, headache, unusual tiredness and weakness, severe sweating, tremors. Symptoms of Methemoglobinemia include cyanosis, headache, lethargy, dizziness, fatigue, syncope, dyspnea, central nervous system depression, seizures, arrhythmia, and shock.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:
CAS no. 7220-79-3 [trihydrate]is not TSCA listed. CAS no. 61-73-4 [anhdyrous] is TSCA listed.

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
Not controlled under WHMIS (Canada). CAS no. 61-73-4 is listed on the Canadian DSL; CAS no. 7220-79-3 is not listed on the Canadian DSL

DSCL (EEC):
R22- Harmful if swallowed. R36- Irritating to eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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Last Updated: 11/01/2010 12:00 PM

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