



Health	1
Fire	0
Reactivity	0
Personal Protection	A

## Material Safety Data Sheet

### Toluidine Blue, 1% MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Toluidine Blue, 1%

**Catalog Codes:** SLT3379

**CAS#:** Mixture.

**RTECS:** Not applicable.

**TSCA:** TSCA 8(b) inventory: Toluidine Blue O; Water

**CI#:** Not available.

**Synonym:** Toluidine Blue, 1% aqueous solution

**Chemical Name:** Not applicable.

**Chemical Formula:** Not applicable.

**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](http://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
Toluidine Blue O	92-31-9	1
Water	7732-18-5	99

**Toxicological Data on Ingredients:**

#### Section 3: Hazards Identification

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

**Potential Chronic Health Effects:**

**CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Mutagenic for bacteria and/or yeast. [Toluidine Blue O].

**TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available.

#### 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 if irritation occurs.

**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:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of open flames and sparks, of shocks.

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

### Section 6: Accidental Release Measures

**Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### Section 7: Handling and Storage

**Precautions:**

Keep locked up.. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.

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

### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

**Personal Protection:** Safety glasses. Lab coat.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Boots. Gloves. 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:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Blue. (Dark.)

**pH (1% soln/water):** Neutral.

**Boiling Point:** The lowest known value is 100°C (212°F) (Water).

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** The only known value is 1 (Water = 1) (Water).

**Vapor Pressure:** The highest known value is 2.3 kPa (@ 20°C) (Water).

**Vapor Density:** The highest known value is 0.62 (Air = 1) (Water).

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, methanol.

**Solubility:** Easily soluble in cold water, hot water, methanol.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials

**Incompatibility with various substances:** Slightly reactive to reactive with oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Skin contact. Eye contact.

**Toxicity to Animals:**

LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:** MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Toluidine Blue O].

**Other Toxic Effects on Humans:**

Slightly hazardous in case of skin contact (irritant), of ingestion. Non-hazardous in case of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** May affect genetic material (mutagenic) (Toluidine Blue O)

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: May cause skin irritation. Contact with skin may also give the skin a bluish tint. Eyes: May cause eye irritation. Inhalation: Not expected to be an inhalation hazard. Ingestion: Expected to be a low hazard. This product contains Toluidine Blue O which may cause nausea, vomiting, abdominal pain, diarrhea, dyspnea (difficulty breathing), bluish tint of the skin. It may also cause burning on urination, and the urine to become dark blue to green depending on the concentration in the urine. There have been reports on effects of Toluidine Blue O on the blood (hemolytic anemia, leukopenia, methemoglobinemia), on behavior/central nervous system (headache, convulsions), cardiovascular system (hypertension, dysrhythmia) as well as reports of acute renal failure and hematuria (only after hemolysis). However, these effects occurred only after intravenous dosage.

## 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 product itself and its products of degradation are not toxic.

**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:** TSCA 8(b) inventory: Toluidine Blue O; Water

**Other Regulations:** Not available.

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

This product is not classified according to the EU regulations. Not applicable.

**HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** a

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

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Not applicable. Lab coat. Not applicable. Safety glasses.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

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