

<b>Section 1. Chemical Product and Company Information</b>	
Common Name: 1% Toluidine Blue	Code: MA0103007
Supplier: BBC Biochemical	MSDS#: MA0103007
Synonym: None	Validation Date: 3-19-09
Trade Name: 1% Toluidine Blue	Print Date: 3-19-09
Material Uses:	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	<b>In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477</b>

<b>Section 2. Composition and Information on Ingredients</b>			
Name	CAS#	% by Weight	Exposure Limits
1) Toluidine Blue	92-31-9	Percentage composition is withheld as a trade secret.	Data not available.
2) Denatured Ethanol	64-17-5		Data not available.

<b>Section 3. Hazards Identification</b>	
Physical State and Appearance	Dark Blue Liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
<b>Eyes</b>	Irritation.
<b>Skin</b>	Irritation.
<b>Inhalation</b>	May cause dizziness, headache, nausea, and narcosis.
<b>Ingestion</b>	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	
Medical Conditions	Kidney, liver, heart, and GI conditions.
Aggravated by	
Overexposure	
Overexposure/ Signs/Symptoms	

<b>Section 4. First Aid Measures</b>	
Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting. Seek medical attention.
Notes to Physician	Not available.

<b>Section 5. Fire Fighting Measures</b>	
Flammability of the Product	Flammable.
Auto-ignition Temperature	Not available.
Flash Points	About 55 Degrees F.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Heat.

<b>Explosion Hazards in Presence of Various Substances</b>	Vapor can travel distances to ignitions source and flash back.
<b>Fire Fighting Media and Instructions</b>	Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors. Fire fighters should use self-contained breathing apparatus and protective clothing.
<b>Protective Clothing (Fire)</b>	
<b>Special Remarks on Fire Hazards</b>	
<b>Special Remarks on Explosion Hazards</b>	

<b>Section 6. Accidental Release Measures</b>	
<b>Small Spill and Leak</b>	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
<b>Large Spill and Leak</b>	Same as above.

<b>Section 7, Handling and Storage</b>	
<b>Handling</b>	Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
<b>Storage</b>	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

<b>Section 8. Exposure Controls / Personal Protection</b>	
<b>Engineering Controls</b>	
<b>Personal Protection</b>	
<b>Eyes</b>	Safety glasses with approved side shields should be worn at all times. Eyewash and safety shower should be available.
<b>Body</b>	Protective clothing to minimize skin contact.
<b>Respiratory</b>	Use NIOSH or MSHA approved respirators in absence of proper environmental control. Approved fume hood or other approved ventilation.
<b>Hands</b>	Neoprene, Nitrile or equivalent gloves.
<b>Feet</b>	Data not available.
<b>Personal Protection in Case of a Large Spill</b>	Safety glasses with side shields, protective clothing, respirator if necessary, neoprene, nitrile or equivalent gloves.
<b>Product Name</b>	<b>Exposure Limits</b>
1) Water	Data not available.
2) Denatured Ethanol Mixture	OSHA PEL 1000 ppm TWA
<b>Consult Local authorities before acceptable exposure limits.</b>	

<b>Section 9. Physical and Chemical Properties</b>		
<b>Physical State and Appearance</b>	Dark Blue Liquid.	<b>Odor:</b> Characteristic odor.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b> Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b> Dark Blue Liquid
<b>pH (1%/Water)</b>	Not applicable.	
<b>Boiling/Condensation Point</b>	173 Degrees F.	
<b>Melting/Freezing Point</b>	Not applicable.	
<b>Critical Temperature</b>	Not applicable.	
<b>Specific Gravity</b>	Not applicable.	
<b>Vapor Pressure</b>	Not applicable.	
<b>Vapor Density</b>	Not applicable.	
<b>Volatility</b>	Not applicable.	
<b>Odor Threshold</b>	Not applicable.	
<b>Evaporation Rate</b>	Not applicable.	
<b>VOC</b>	Not available.	
<b>Viscosity</b>	Not available.	
<b>Ionicity (in water)</b>	Not available.	
<b>Dispersion Properties</b>	Not available.	
<b>Solubility</b>	Complete in water.	
<b>Physical Chemical Comments</b>	Not available.	

<b>Section 10. Stability and Reactivity</b>
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<b>Stability and Reactivity</b>	Stable.
<b>Conditions of Instability</b>	Heat.
<b>Incompatibility with Various Substances</b>	Oxidizers.
<b>Hazardous Decomposition Products</b>	Bromine compounds, CO <sub>x</sub> , Na <sub>2</sub> O, strong oxidizing agent, such as nitrates, perchlorates, peroxides, chromic, nitric and sulfuric acid..
<b>Hazardous Polymerization</b>	Does not occur.

### Section 11. Toxicological Information

<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.
<b>Chronic Effects on Humans</b>	
<b>Other Toxic Effects on Humans</b>	
<b>Special Remarks on Toxicity to Animals</b>	Tests on laboratory animals indicate Eosin Y may produce adverse mutagenic effects and cause tumors. Cited in Registry of Toxic Effects of Substances (RTECS).
<b>Special Remarks on Chronic Effects on Humans</b>	Not available.
<b>Special Remarks on Other Toxic Effects on Humans</b>	Not available.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BODS and COD</b>	Not available.
<b>Biodegradable/OEDC</b>	Not available.
<b>Mobility</b>	Not available.
<b>Toxicity of the Products of Biodegradation</b>	Not available.
<b>Special Remarks on The Products of Biodegradation</b>	Not available.

### Section 13. Disposal Considerations

<b>Waste Information</b>	Disposal by Incineration or fuel blending. Contact your local licensed waste disposal company. Follow Federal, State, and local regulations.
<b>Waste Stream</b>	Not available.
<b>Consult your local or regional authorities.</b>	

### Section 14. Transport Information

<b>DOT Classification</b>	UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II
<b>Marine Pollutant</b>	Not available.
<b>Hazardous Substances Reportable Quantity</b>	Not available.
<b>Special Provisions for Transport</b>	Not applicable.
<b>TDG Classification</b>	UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II
<b>ADR/RID Classification</b>	ADR (Europe) information not available.
<b>IMO/IMDG Classification</b>	IMDG Information not available.
<b>ICAO/IATA Classification</b>	See IATA Regulations, UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II

### Section 15. Other Information

<b>Label requirements</b>			
<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health</b>	2	<b>National Fire Protection Association (U.S.A.)</b>
	<b>Fire Hazard</b>	3	
	<b>Reactivity</b>	1	
	<b>Personal Protection</b>		
<b>References</b>			
<b>Other Special</b>			

**Considerations****Notice to Reader**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*