



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
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(716) 226-6177

MSDS No. MM 450
Effective Date March 31, 1999

SECTION V HEALTH HAZARD DATA

MM 450

Threshold Limited Value None established for this mixture. For Pure Isopropyl Alcohol:
TWA: 400 ppm; 983 mg/m³. Human, oral LDLo 2371 mg/kg.

Effects of Overexposure **TARGET ORGANS AFFECTED:** Central nervous system.
INGESTION AND INHALATION: Of large quantities of the vapor may cause flushing, headache, dizziness, mental depression, nausea, vomiting, narcosis, anesthesia, coma. 130 mL. can be fatal. **EYES:** Liquid may cause irritation. **SKIN:** Repeated contact may cause irritation and cracking.

Emergency and First Aid Procedures **INHALATION:** Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get emergency medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Excessive temperatures, heat, spark or flame.
	Stable	X		

Incompatibility (Materials to Avoid) Strong oxidizing materials can react vigorously with this alcohol. Aluminum, metal, nitroform, oleum.

Hazardous Decomposition Products Thermal decomposition or burning will produce carbon dioxide and/or carbon monoxide.

Hazardous Polymerization		Conditions to Avoid	Not applicable.
May Occur	Will Not Occur		
	X		

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Remove all ignition sources. Provide adequate ventilation. This material is handled and disposed of as a flammable liquid. Absorb small spills on paper; evaporate isopropyl alcohol in an exhaust hood; burn paper after evaporation. Prevent flow to sewers and public water ways.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.
Dispose of in an approved incinerator or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	Adequate to maintain below exposure limit.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment Goggles, lab coat, eye wash station, proper gloves, ventilation hood, fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place away from strong oxidizing materials and fire hazards. Wash thoroughly after handling.
Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.
Avoid contact with eyes and skin. Avoid prolonged or repeated breathing of vapors. Use with adequate ventilation. Keep away from heat, sparks, and flame. Keep container tightly closed when not in use. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 5	Date 3/31/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	METHYLENE BLUE CHLORIDE 1% ALCOHOL SOL'N	 CHEMTREC 800-424-9300 Day 716-226-6177	Health	1
Chemical Synonyms	Basic Blue 9, C.I. No. 52015		Fire	3
Formula	Mixture. See Section II.	NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4	Reactivity	2
Unit Size	up to 3.785 Lt.		HMIS *	
C.A.S. No.	Mixture. See Section II.			

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Methylene Blue Chloride: (CAS No. 61-73-4)	1%	None established.
Isopropyl Alcohol: (CAS No. 67-63-0)	49%	See Section V.
Sodium Benzoate: (CAS No. 532-32-1)	0.5%	None established.
Water: (CAS No. 7732-18-5)	50%	None established.

WARNING! FLAMMABLE! CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED.

SECTION III PHYSICAL DATA

Melting Point (°F)	-90°C (-130°F) (Pure IPA)	Specific Gravity (H₂O = 1)	0.786 @ 20/20°C
Boiling Point (°F)	82°C (180°F) (Pure IPA)	Percent Volatile by Volume (%)	99%
Vapor Pressure (mm Hg)	33 mm @ 20°C (Pure IPA)	Evaporation Rate (n-Butyl Acetate = 1)	1.5
Vapor Density (Air=1)	2.1 (Pure IPA)		
Solubility in Water	Complete.		
Appearance & Odor	Blue liquid; mild characteristic alcohol odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	24°C (75°F) TCC (for 50%)	Flammable Limits in Air % by Volume	Lower	Upper
		Pure IPA	2.5 @ 26°C	12.1% @ 66°C

Extinguisher Media "Alcohol foam"; carbon dioxide (CO₂); dry chemical (ABC); water spray.

SPECIAL FIREFIGHTING PROCEDURES Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective equipment.

Autoignition Temperature: 399°C (750°F) (ASTM-E659-78) pure IPA.
Cool Flame: 360°C (680°F) (ASTM-E659-78) pure IPA.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 129)

UNUSUAL FIRE AND EXPLOSION HAZARDS Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, or ignition sources at locations distant from material handling point. **CAUTION!** Flame may not be visible in daylight. Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

D.O.T. ISOPROPYL ALCOHOL, (SOLUTION), 3, UN 1219, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20