



Date Issued: April 30, 1999

Supersedes Date: December 9, 1998

MATERIAL SAFETY DATA SHEET

IDENTIFICATION AND EMERGENCY INFORMATION						
Product Name	Tissue Marking Dye					
Product Code (Catalog Number)	TMD-5 (5 Color Kit) TMD-BK (Black) TMD-Y (Yellow) TMD-BL (Blue) TMD-G (Green) TMD-R (Red)					
Product Category (Chemical Name)						
Product Appearance and Odor	Opaque liquid of either red, yellow, green, blue or black color					
Emergency Notification	Chem-Tel 1-800-255-3924					
COMPONENTS AND HAZARD INFORMATION						
Component	CAS No.	%	OSHA TWA		OSHA STEL	
			ppm	mg/m ³	ppm	mg/m ³
ammonia (yellow, green, blue, black dye)	7664-41-7	<2	50	35	NE	NE
dimethylethanolamine (red, green dye)	108-01-0	<2	5	NE	25	NE
monoethanolamine (red)	141-43-5	<2				
isopropyl alcohol (green)	67-63-0	<7	400	960	NE	NE
carbon black	1333-86-4	<17	NE	3.5	NE	NE
PHYSICAL DATA						
THE FOLLOWING DATA ARE APPROXIMATE OR TYPICAL VALUES AND SHOULD NOT BE USED FOR PRECISE DESIGN PURPOSES.						
Boiling Range >212	Specific Gravity NE	Molecular Weight		Viscosity		
Percent Volatile by Volume NE	Vapor Pressure @20 C degrees NE	Vapor Density (Air = 1) NE		Pour, Congealing or Melting Point NE		
Solubility in Water @1 ATM and 25°C (77°F) NE	Evaporation Rate @1 ATM and 25°C (77°F) (n-Butyl Acetate = 1) NE			pH		

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

FIRE AND EXPLOSION HAZARD INFORMATION				
Flash Point (Minimum) NE	Autoignition Temperature		Test Mode	LEL NE
UEL NE				
National Fire Protection Association (NFPA) — Hazard Identification				
Health	Flammability	Reactivity	Basis	
Handling Precautions				
Flammable or Explosive Limits (Approximate Percent by Volume in Air)				
Extinguishing Media Water, carbon dioxide, dry chemical powder, foam.				
Fire Fighting Procedures Firefighters must wear self-contained breathing apparatus and fully protective equipment.				
Decomposition Products Under Fire Condition				
“Empty” Container Warning				
Unusual Fire and Explosion Hazards Use water spray to disperse vapor.				
HEALTH AND HAZARD INFORMATION				
Variability Among Individuals				
Signs and symptoms of overexposure Chemical, physical and toxicological properties are not established for this material. Handle with the care required by good laboratory technique.				
Effects of Overexposure				
Nature of Hazard and Toxicity Information				
Pre-existing Medical Conditions which may be Aggravated by Exposure NE				
Threshold Limit Value				
Health Hazards Possible irritant				

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Carcinogenicity carbon black — IARC (animal sufficient evidence; human inadequate evidence)		
PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES		
Eye Contact Flush eyes with water for at least 15 minutes.		
Skin Wash affected area with copious amounts of water.		
Inhalation Remove to fresh air. Give oxygen or artificial respiration, as needed		
Ingestion Call physician.		
SEEK MEDICAL TREATMENT IF DISCOMFORT PERSISTS.		
REACTIVITY		
Stability Stable	Incompatibility NE	Hazardous Decomposition Products NE
Conditions to Avoid High temperature	Hazardous Polymerization Will not occur	Materials to Avoid
ENVIRONMENTAL INFORMATION		
Steps to be Taken in Case Material is Released or Spilled Contain spilled liquid with non-combustible materials. This product contains formaldehyde (50-00-0) 0.05% of which is RCRA U122.		
Waste Disposal Method Regualtions – RCRA U122 listed waste		
Disposal Responsibility for proper disposal of waste lies with the party generating the waste. Disposal must comply with all federal, state and local regulations.		
Protective Gear		
Precautions to be taken in handling and storage Store material at 25°C. Keep storage container tightly closed. Avoid contact with skin and eyes. Do not inhale. Wash thoroughly after handling.		
THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES.		
Reportable Quantity (RQ), EPA Regulation 40 CFR 302 (CERCLA Section 102)		
Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355 (SARA Sections 301-304)		

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Toxic Chemical Release Reporting, EPA Regulation 40 CFR 372 (SARA Section 313) Ammonia 7664-41-7 <2%					
Hazardous Chemical Reporting, EPA Regulation 40 CFR 370 (SARA Sections 311-312)					
Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable
SPECIAL STATE NOTIFICATIONS					
California: This product contains a substance known to the state of California to cause cancer.					
PROTECTION AND PRECAUTIONS					
Ventilation Mechanical ventilation					
Respiratory Protection OSHA/MHSA approved respirator if needed.					
Protective Gloves Rubber					
Eye Protection Safety goggles.					
Other Protective Equipment Safety shower, eye bath.					
TRANSPORTATION AND OSHA RELATED LABEL INFORMATION					
Transportation Incident Information					
U.S. DOT Hazardous Materials Shipping Description					
OSHA Required Label Information					

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