



# Material Safety Data Sheet

OSHA / ANSI Z400.1-2004 Compliant

MSDS date: 29-Oct-2005

**NFPA Rating:** Health: 2 Flammability: 1 Instability: 1  
**HMIS Rating:** Health: 2 Flammability: 1 Physical Hazard: 1 Personal Protection: X

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** CIBACRON BLUE MI-600  
**Product Number:** 1895168  
**Chemical Family:** Anthraquinone Dye  
**Intended Use:** For Dyeing Cellulosic Fibers  
**Manufacturer/Supplier:** Ciba Specialty Chemicals Corporation  
4050 Premier Drive  
HighPoint, NC 27265  
8:30am - 5pm Phone Number: 1-336-801-2500  
MSDS Request Line (voicemail): 1-800-431-2360  
Customer Service/Product Information 1-800-334-8124  
**Emergency 24-Hour Health/Environmental Phone: 1-800-873-1138**

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**Signal Word:** WARNING!  
**Physical Form:** Liquid  
**Color:** Blue  
**Odor:** Odorless

<b>Health:</b>	May cause serious eye damage.. May cause skin sensitization which may be seen as redness or inflammation. The reactive dye in this product has not been shown to cause allergic respiratory reactions in workers. However, since certain other reactive dyes have caused allergic reactions, a physician should be called if a worker experiences symptoms such as skin rash, puffiness around eyes, nasal symptoms (itchy, runny or blocked nose), lower respiratory symptoms (wheezing, chest tightness, difficulty in breathing or asthmatic attacks), dizziness or fainting. Persons allergic to reactive dyes should avoid exposure to them.. Contains caprolactam, which is an eye, skin, and respiratory tract irritant and is harmful if swallowed or absorbed through the skin. Caprolactam produced nervous system disturbances (including tremors and convulsions) and cardiovascular effects (an initial increase, then a decrease in blood pressure; increased respiratory rate) in laboratory animals. Overexposure to caprolactam in humans has been associated with dermatitis, nausea, vomiting, and seizures..
<b>Physical Hazards:</b>	None Expected .

**OSHA Hazardous Substance:** This material is classified as hazardous under OSHA regulations.

**Potential Health Effects:** May cause serious damage to eyes. May cause skin sensitization which may be seen as redness or inflammation. The reactive dye in this product has not been shown to cause allergic respiratory reactions in workers. However, since certain other reactive dyes have caused allergic reactions, a physician should be called if a worker experiences symptoms such as skin rash, puffiness around eyes, nasal symptoms (itchy, runny or blocked nose), lower respiratory symptoms (wheezing, chest tightness, difficulty in breathing or asthmatic attacks), dizziness or fainting. Persons allergic to reactive dyes should avoid exposure to them. Contains Caprolactam, which is an eye, skin and respiratory tract irritant and is harmful if swallowed or absorbed through the skin. Caprolactam produced nervous system disturbances (including tremors and convulsions) and cardiovascular effects (an initial increase, then a decrease in blood pressure; increased respiratory rate) in laboratory animals. Overexposure to Caprolactam in humans has been associated with dermatitis, nausea, vomiting and seizures.

**Primary Route(s) of Entry:** Ingestion, Skin, Inhalation, Eyes.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### HAZARDOUS COMPONENTS

Components	CAS Number	Weight %
E-Caprolactam	105-60-2	14.2
Anthraquinone dye 00244	Trade Secret	10 - 20%

### 4. FIRST AID MEASURES

<b>Eyes:</b>	Immediately flush the eye(s) with lukewarm, gently flowing water for 15 minutes or until the chemical is removed. Get immediate medical attention if irritation persists.
<b>Skin:</b>	If clothing is contaminated, remove and launder before reuse. Wash off immediately with soap and plenty of water. Get medical attention if irritation occurs.
<b>Inhalation:</b>	Remove to fresh air, if not breathing give artificial respiration. If breathing is difficult, give oxygen and get immediate medical attention.
<b>Ingestion:</b>	Do not induce vomiting. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration. Seek medical attention immediately.

## 5. FIRE FIGHTING MEASURES

<b>Fire Fighting Measures:</b>	Standard procedure for chemical fires.
<b>Suitable Extinguishing Media:</b>	Carbon dioxide, dry chemical or foam.
<b>Fire Fighting Equipment:</b>	Wear self-contained breathing apparatus and protective suit.
<b>Hazardous Combustion Products:</b>	Burning may produce toxic combustion products.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Cleanup Instructions:</b>	Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Wear suitable protective equipment. Should not be released into the environment.
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## 7. HANDLING AND STORAGE

<b>Handling:</b>	As with all industrial chemicals, use good industrial practices when handling. Avoid eye, skin, and clothing contact. Do not inhale. Do not taste or swallow. Use only with adequate ventilation.
<b>Storage:</b>	Keep containers tightly closed in a cool, well-ventilated place.

### For Industrial Use Only

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines:

Components	OSHA PEL	OSHA STEL	ACGIH TWA	ACGIH STEL	Ciba/ Manufacturer IEL:
E-Caprolactam 105-60-2		3 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>		

### Personal Protective Equipment

<b>Eye/Face Protection:</b>	Wear splash proof chemical goggles.
<b>Skin Protection:</b>	Wear chemical resistant gloves and protective clothing.
<b>Respiratory Protection:</b>	Use NIOSH approved respirator as needed to mitigate exposure.
<b>Engineering Controls:</b>	Work in well ventilated areas. Do not breathe vapors or mist.
<b>Other Protective Equipment:</b>	Eye wash station and safety shower should be available in immediate work area. Select additional protective equipment based upon potential for exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Form:</b>	Liquid
<b>Color:</b>	Blue
<b>Odor:</b>	Odorless.
<b>Boiling Point:</b>	Not determined
<b>Freezing/Melting Point:</b>	Not determined
<b>Solubility in water:</b>	Miscible
<b>Vapor Density:</b>	Not determined
<b>Vapor Pressure:</b>	Not determined
<b>Density:</b>	1.05 g/cm <sup>3</sup> @ 20°C (68°F)
<b>Specific Gravity:</b>	Not determined
<b>pH:</b>	8.0 - 9.0 @ 1 g/L solution
<b>Percent Volatile:</b>	Not determined
<b>VOC:</b>	~27.5% (Estimated, based on component wt. %)
<b>Partition Coefficient (Octanol/Water):</b>	Not determined
<b>Autoignition Temperature:</b>	Not determined
<b>Decomposition Temperature:</b>	Not determined
<b>Flammability Limits in Air:</b>	
<b>Flash point:</b>	~ 100 °C (212°F)
<b>Test Method (for Flash Point):</b>	Not determined

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	None known
<b>Incompatibility:</b>	Strong oxidizing agents, strong acids, strong bases.
<b>Hazardous Decomposition Products:</b>	No decomposition expected under normal storage conditions.
<b>Possibility of Hazardous Reactions:</b>	None expected.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral Toxicity:</b>	>2000 mg/kg (Rats) *
<b>Acute Dermal Toxicity:</b>	Not determined
<b>Acute Inhalation Toxicity:</b>	Component(s) in greater than 1 percent concentration is known to be a respiratory irritant. *
<b>Eye Irritation:</b>	Component(s) in greater than 1 percent concentration is known to be an irritant. May cause serious damage to the eyes. *
<b>Skin Irritation:</b>	(Rabbits) Irritant*
<b>Skin Sensitization:</b>	(Guinea Pig) Sensitizer *
<b>Carcinogenicity (IARC; NTP; OSHA; ACGIH):</b>	None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.
<b>Mutagenicity:</b>	Not evaluated.
<b>Reproductive Toxicity:</b>	Not determined

<b>Teratogenicity:</b>	Not evaluated
<b>Neurotoxicity:</b>	Not determined
<b>Subacute Toxicity:</b>	Not evaluated.
<b>Subchronic Toxicity:</b>	Not determined
<b>Chronic toxicity:</b>	Not determined
<b>Absorption / Distribution / Excretion / Metabolism:</b>	Not determined
<b>Toxicologically Synergistic Products:</b>	Not evaluated

**Additional Information:** \*Note: The above data based on component information.

## 12. ECOLOGICAL INFORMATION

<b>Toxicity to Fish:</b>	(Zebra fish) LC50 > 300 mg/L 96 hour *
<b>Toxicity to Invertebrates:</b>	(Daphnia magna) EC50 > 100 mg/L 48 hour *
<b>Toxicity to Algae:</b>	EC50 > 100 mg/L 72 hour *
<b>Toxicity to Sewage Bacteria:</b>	Not determined
<b>Activated Sludge Respiration Inhibition Test:</b>	IC50 > 320 mg/l (3 Hrs.)*
<b>Biochemical Oxygen Demand (BOD):</b>	2.0 mg/g *
<b>Chemical Oxygen Demand (COD):</b>	454 mg/g *
<b>Total Oxygen Demand (TOD):</b>	Not determined
<b>Biodegradability:</b>	Bioelimination: 50 -60%
<b>Bioaccumulation:</b>	Not determined
<b>Additional Environmental Data:</b>	*Note: The above data based on known component information.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Dispose in accordance with local, state, provincial and federal regulations.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation (DOT):

Not regulated for this mode of transport.

### International Maritime Dangerous Goods (IMDG):

Not regulated for this mode of transport.

### International Air Transportation Authority (IATA):

Not regulated for this mode of transport.

## 15. REGULATORY INFORMATION

### Federal Regulations

**OSHA Hazardous Substance:** This material is classified as hazardous under OSHA regulations

**Clean Air Act - Hazardous Air Pollutants (HAP):** This product does not contain any Hazardous Air Pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

**Clean Air Act - Volatile Organic Compounds (VOC):** This product contains the following SOCM Intermediate or Final Volatile Organic Compounds (VOC), as defined by the U.S. Clean Air Act Section 111 (40 CFR 60.489). Refer to VOC data in section 9.

Components	CAA Section 111 Volatile Organic Compounds
E-Caprolactam 105-60-2	Listed.
1,2-Propanediol 57-55-6	Listed.

**Clean Air Act - Ozone Depleting Substances (ODS):** This product neither contains, nor was manufactured with, a Class I or Class II ozone depleting substance (ODS), as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

**Clean Water Act - Priority Pollutants (PP):** This product contains the following priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1) Priority Pollutant List (40 CFR 401.15):

Components	CWA Section 307(2)(1) Priority Pollutants
Anthraquinone dye 00244	Listed.

**Resource Conservation and Recovery Act (RCRA):** Not a hazardous waste under RCRA (40 CFR 261.21).

**SARA Section 302 Extremely Hazardous Substances (EHS):** This product does not contain any components regulated under Section 302 (40 CFR 355) as Extremely Hazardous Substances.

**SARA Section 304 CERCLA Hazardous Substances:** This product contains the following component(s) regulated under Section 304 (40 CFR 302) as hazardous chemicals for emergency release notification ("CERCLA" List).

**SARA Section 311/312 Hazard Communication Standard (HCS):** This product is regulated under Section 311/312 HCS (40 CFR 370). Its hazard(s): Acute (immediate) health hazard.

**SARA Section 313 Toxic Chemical List (TCL):** This product does not contain any component(s) listed on the Section 313 Toxic Chemical List.

**TSCA Section 8(b) Inventory Status:** All component(s) comprising this product are either exempt or listed on the TSCA inventory.

**TSCA Section 5(e) Consent Orders:** This product is not subject to a Section 5(e) Consent Order.

**TSCA Significant New Use Rule (SNUR):** This product is not subject to a Significant New Use Rule (SNUR).

**TSCA Section 5(f):** This product is not subject to a Section 5(f)/6(a) rule.

**TSCA Section 12(b) Export Notification:** This product does not contain any component(s) that are subject to a Section 12(b) Export Notification

### State Regulations

**California Proposition 65:** This product does not contain any components currently on the California list of Known Carcinogens and Reproductive Toxins.

**Pennsylvania Right-To-Know:** This product contains the following component(s) which are subject to Pennsylvania Right-to-Know disclosure requirement.

Components	CAS Number	Pennsylvania Right-to-Know
E-Caprolactam	105-60-2	Listed.

### International Regulations

**Chemical Weapons Convention (CWC):** This product does not contain any component(s) listed under the Chemical Weapons Convention Schedule of Chemicals.

**Domestic Substance List (DSL) Status:** Not all components are listed on the DSL.

## 16. OTHER INFORMATION

**Reason for revision:** Formulation revision. MSDS update. Source Change

**Disclaimer:** The information contained herein is based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to such data or information. The user is responsible for determining whether the product is suitable for its intended conditions of use.