Material Safety Data Sheet
(16910)

Section 1: Chemical Product and Company Identification

Product Name: Indigo Carmine

Catalog Number: 16910

CAS#: 860-22-0

Contact Information:
Electron Microscopy Sciences
1560 Industry Road
Hatfield, PA 19440
1-215-412-8400 (phone)
1-800-523-5874 (toll-free)
1-215-412-8450 (fax)
Order Online: emsdiasum.com

CHEMTREC (24-Hour Emergency Telephone), call: 1-800-424-9300

Section 2: Composition and Information on Ingredients

		Exposure Limits			
Name	**CAS #**	**TWA (mg/m^3)**	**STEL (mg/m^3)**	**CEIL (mg/m^3)**	**% by weight**
Indigo Carmine	860-22-0				100

Toxicological Data on Ingredients

Indigo Carmine:
Oral (LD50): Acute: 2000 mg/mg (Rat.) 2500 mg/kg (Mouse)

Section 3: Hazards Identification

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

Potential Chronic Health Effects: Carcinogenic Effects: Not available
Mutagenic Effects: Not available
Teratogenic Effects: Not available
Developmental Toxicity: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

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. Warm water must be used. Get medical attention.

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: May be combustible at high temperature

Auto-Ignition Temperature: Not available

Flash Points: Not available

Flammable Limits: Not available

Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2), sulfur oxides (SO2, SO3). Some metallic oxides.

Fire Hazards in Presence of various substances: Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of various substances: Risks of explosion of the product of mechanical impact: Not available, Risks of explosion of the product in presence of static discharge: Not available

Fire Fighting Media and Instructions: Small fire: Use dry chemical powder, large fire: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available

Special Remarks on Explosion Hazards: Not available

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use shovel to out the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7 : Handling and Storage

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Light sensitive. Store in light-resistant containers. Keep container tightly closed. Keep container in a cool. Well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne

contaminants below the exposure limit.

Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. 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: Solid

Molecular Weight: 466.36 g/mole

pH (1% soln/water): Not available

Boiling Point: Not available

Melting Point: Not available

Critical Temperature: Not available

Specific Gravity: Not available

Vapor Pressure: Not applicable

Vapor Density: Not available

Volatility: Not available

Odor Threshold: Not available

Water/Oil Dist. Coeff.: Not available

Ionicity (in water): Not available

Dispersion Properties: See solubility in water

Solubility: Partially soluble in cold water. Solubility in water: 1 g/100 ml of water

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available

Conditions of Instability: Excess heat, light, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Light sensitive. Incompatible with nitric acid, chlorates, and other strong oxidizing agents.

Special Remarks on Corrosivity: Not available

Polymerization: Will not occur

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 3097 mg/kg (Mouse), Acute dermal toxicity (LD50): 8560 mg/kg [Rabbit]

Chronic Effects on Humans: May cause damage to the following organs: kidneys, the nervous system, liver

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation. Slightly hazardous in case of skin contact (sensitizer), of ingestion.

Special Remarks on Toxicity to Animals: Not available

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects:

Skin: Causes moderate skin irritation with redness and swelling. May cause dermatitis. It may be absorbed by the skin.
Eyes: Direct contact with liquid causes moderate to severe eye irritation experienced as discomfort, pain, excess blinking, and tear production, marked excess redness, and swelling of conjunctiva. May cause corneal injury. Vapors may cause eye irritation.
Inhalation: May cause respiratory tract with mild burning sensation in the nose, throat and lungs, coughing, wheezing, shortness of breath, pulmonary edema. Breathing of high concentration of vapors may also cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, loss of coordination. Continued inhalation may result in unconsciousness and death.
Ingestion: May cause digestive tract (mouth, throat, and esophagus) irritation. May cause nausea, vomiting and diarrhea. May affect behavior/central nervous system (CNS excitation followed by profound CNS depression – dizziness, incoordination, headache, drowsiness, memory loss, withdrawal, irritability, fatigue, sleep disturbances). It may also affect the peripheral nervous system and cause muscle weakness and “pins and needles” sensation).

Chronic Potential Health Effects:
Skin: Repeated or prolonged skin contact may cause dermatitis, skin sensitization.
Ingestion: Repeated or prolonged skin contact may cause liver and kidney damage. It may also affect behavior/central nervous system/peripheral nervous system and cause symptoms similar to that of acute ingestion.

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 products 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:
Illinois toxic substances disclosure to employee act: Hexylene Glycol
Pennsylvania RTK: Hexylene Glycol
Minnesota: Hexylene Glycol
Massachusetts RTK: Hexylene Glycol
Massachusetts spill list: Hexylene Glycol
New Jersey: Hexylene Glycol
TSCA 8(b) inventory: Hexylene Glycol

California Proposition 65 Warnings: California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
Other Regulations: OSHA**:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:
WHMIS (Canada): Class D-2B: Material causing other toxic effects (TOXIC).
DSCL (EEC): R36/38 **–** irritating to eyes and skin, S15 – Keep away from heat, S36/37/39 – wear suitable protective clothing, gloves and eye/face protection
HMIS (USA): Health Hazard: 2, Fire Hazard: 2, Reactivity: 0, Personal Protection: h
National Fire Protection Association (USA): Health 2, Flammability 2, Reactivity 0

Section 16: Other Information:

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