

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Material Name:** Indigo Carmine  
**Catalogue Number:** C111; C1111; C1115.  
**Other Names:** Acid Blue 74; C.I. 73015; 5,5'-Indigodisulfonic acid, disodium salt.  
**Recommended Use:** Stain for Electron Microscopy.

**Supplier Name:** ProSciTech  
**Street Address:** 1/11 Carlton Street, Kirwan, Qld. 4817 Australia  
**Telephone Number:** (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)  
**Emergency Contact:** (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)

## SECTION 2 - HAZARDS IDENTIFICATION

**Hazard Classification:**  
Not classified as hazardous according to criteria for Classifying Hazardous Substances [NOHSC:1008].  
**Hazardous and/or Dangerous Nature:**  
NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.  
**Risk Phrases:**  
R22 Harmful if swallowed.  
**Safety Phrases:**  
Not available.  
*Refer to Section 15 for Poisons Schedule.*

## SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

**Pure Substance (Proportion 100%):**  
**Chemical Identity:** Indigo Carmine  
**Common Name(s):** Acid Blue 74; C.I. 73015; 5,5'-Indigodisulfonic acid, disodium salt.  
**CAS Number:** 860-22-0

## SECTION 4 - FIRST AID MEASURES

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.  
**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.  
**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. **SPEEDY ACTION IS CRITICAL!**  
**Skin Contact:** Flush skin with plenty of soap and water. Get medical aid if irritation develops or persists.  
**First Aid Facilities:** Eyebath/eyewash, Safety shower & general washroom facilities.  
**Medical Attention & Special Treatment:**  
Treat symptomatically and supportively.  
**Additional Information:**  
Appearance: Dark Blue to Purple Powder. The toxicological properties of this material have not been fully investigated. CAUTION! May cause irritation. Light sensitive. May be harmful if swallowed.

## SECTION 5 - FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:**  
Water, dry chemical, chemical foam, or alcohol-resistant foam.  
**Hazards from Combustion Products:**  
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion (Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen).  
**Precautions for Fire Fighters:**  
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.  
**Hazchem Code:** Not available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Emergency Procedures:**  
Use proper personal protective equipment as indicated in Section 8, while cleaning spill.

**Containment & Clean up:**

Sweep up, and then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

**SECTION 7 - HANDLING & STORAGE****Precautions for Safe Handling:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Store protected from light.

**Precautions for Safe Storage:**

Keep containers tightly closed. Store protected from light. Store in a cool, dry area away from incompatible substances.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**National Exposure Standards:** No exposure standard allocated.

**Biological Limit Values:** No biological limit allocated.

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Personal Protective Equipment:**

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES**

**Appearance:** Dark blue to purple powder.

**Odour:** Not available.

**pH:** Not available.

**Vapour pressure (mm of Hg at °C):** Negligible.

**Vapour density:** Not available.

**Boiling point/range (°C):** Not available.

**Freezing/melting point (°C):** >300°C.

**Solubility:** 1g/100mL @ 25°C.

**Specific gravity or density:** Not available.

**Flash Point:** Not available.

**Flammable (explosive) limits:** Not available.

**Ignition temperature:** Not available.

**Molecular Weight:** 466.35

**Chemical Formula:** C<sub>16</sub>H<sub>8</sub>N<sub>2</sub>Na<sub>2</sub>O<sub>8</sub>S<sub>2</sub>

**SECTION 10 - STABILITY AND REACTIVITY**

**Chemical stability:** Stable under normal conditions of use.

**Conditions to avoid:** Incompatible materials, light.

**Incompatible Materials:** Oxidizing agents, Nitric acid.

**Hazardous Decomposition Products:**

Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.

**Hazardous Reactions:** Will not occur.

**SECTION 11 - TOXICOLOGICAL INFORMATION****Exposure and Health Effects:**

The toxicological properties of this material have not been fully investigated. CAUTION! May cause irritation. Light sensitive. May be harmful if swallowed.

**Ingestion:**

May cause gastrointestinal irritation with nausea, vomiting and diarrhoea. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

**Inhalation:**

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Eye Contact:**

This product contains a cationic dye. Similar dyes have caused permanent injury to the cornea and conjunctiva in document exposure cases with human or rabbit eyes.

**Skin Contact:**

May cause skin irritation.

**Human/Animal data:** Oral, mouse: LD50 = 2500 mg/kg;

Oral, rat: LD50 = 2 gm/kg;

**Carcinogenic Category:** Not classified as a Carcinogen by the IARC.

**Other Carcinogenic Information:** Not available.

**Information:**

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**Persistence and degradability:** Not available.

**Mobility:** Not available.

**Additional Information:** Not available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**Special Precautions/Additional Informational:**

Not available.

## SECTION 14 - TRANSPORT INFORMATION

**UN Number:** Not regulated.

**UN Proper Shipping Name:** Not regulated.

**Class and Subsidiary risk:** Not regulated.

**Packing Group:** Not regulated.

**Special Precautions for User:** Not available.

**Hazchem Code:** Not available.

## SECTION 15 - REGULATORY INFORMATION

**Poison Schedule Number:** None Allocated.

## SECTION 16 - OTHER INFORMATION

**Date of preparation of MSDS:** June 11

**Comments:**

**List of Publications referenced when creating this MSDS;**

- Hazardous Substances Information System Consolidated Lists: Safe Work Australia.
- APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008(2004)] 3rd Edition: National Occupational Health and Safety Commission.
- Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997).
- IATA Dangerous Goods Regulations.
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
- Australia Standard for the Uniform Scheduling of Drugs and Poisons [SUSPD] (Australian Government Department of Health and Ageing).

*This Material Safety Data Sheet (MSDS) has been prepared in compliance with the National code of Practice for the Preparation of Material Safety Data Sheets 2<sup>nd</sup> Edition [NOHSC:2011(2003)]. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this MSDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.*

**... End of MSDS ...**