

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Material Name:** Safranin O, certified, C.I. 50240  
**Catalogue Number:** C138, C1381, C1385.  
**Other Names:** 2,8-Dimethylphenosafranin; 3,7-Dianino-2,8-dimethyl-5-phenylphenazinium chloride; Phenazinium, 3,7-diamino-2,8-dimethyl-5-phenyl, chloride; C.I.50240;Basic Red 2.  
**Recommended Use:** Stain for 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:**  
 Hazardous according to the criteria for Classifying Hazardous Substances [NOHSC:1008].  
**Hazardous and/or Dangerous Nature:**  
 HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.  
**Risk Phrases:**  
 R36/38 Irritating to eyes and skin.  
**Safety Phrases:**  
 S24/25 Avoid contact with skin and eyes.

*Refer to Section 15 for Poisons Schedule.*

## SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

**Pure Substance (Proportion 100%):**

**Chemical Identity:** Safranin O  
**Common Name(s):** Safranin O, certified, C.I. 50240; 2,8-Dimethylphenosafranin; 3,7-Dianino-2,8-dimethyl-5-phenylphenazinium chloride; Phenazinium, 3,7-diamino-2,8-dimethyl-5-phenyl, chloride; C.I.50240;Basic Red 2.  
**CAS Number:** 477-73-6

## SECTION 4 - FIRST AID MEASURES

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do Not induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.  
**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:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.  
**Skin Contact:** Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.  
**First Aid Facilities:** Eyebath/eyewash, Safety shower & general washroom facilities.  
**Medical Attention & Special Treatment:**  
 Treat symptomatically and supportively.  
**Additional Information:**  
 Effects can be delayed.

## SECTION 5 - FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:**  
 Use water spray, dry chemical, carbon dioxide, or appropriate foam.  
**Hazards from Combustion Products:**  
 During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapours may be heavier than air. They can spread along the ground and collect in low or confined areas  
**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:

Ventilate area and remove unnecessary personnel.

### Containment & Clean up:

Use proper personal protective equipment as indicated in Section 8. Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

## SECTION 7 - HANDLING & STORAGE

### Precautions for Safe Handling:

Wash thoroughly after handling. Use with adequate ventilation. Keep container tightly closed. Do not get on skin or in eyes. Wash clothing before reuse. Avoid breathing dust.

### Precautions for Safe Storage:

Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated 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:

Wear appropriate protective equipment to provide adequate protection from contact with the material.

Gloves, laboratory coat, safety glasses/goggles and clothing.

If necessary use a MSHA/NIOSH approved respirator if airborne concentrations become a concern.

## SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

**Appearance:** Red to brown powder.

**Odour:** None reported.

**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):** Not available.

**Solubility:** Not available.

**Specific gravity or density:** 1.005g/cm<sup>3</sup>.

**Flash Point:** Not available.

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

**Ignition temperature:** Not available.

**Molecular Weight:** 350.84

**Chemical Formula:** C<sub>20</sub>H<sub>19</sub>ClN<sub>4</sub>

## SECTION 10 - STABILITY AND REACTIVITY

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

**Conditions to avoid:** Excess heat, temperatures above 240°C and incompatible materials.

**Incompatible Materials:** Strong oxidising agents.

### Hazardous Decomposition Products:

Hydrogen chloride, carbon monoxide, oxides of nitrogen, carbon dioxide.

**Hazardous Reactions:** Has not been reported, however may decompose if heated.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Exposure and Health Effects:

Effects may be delayed.

Appearance: Red-brown - brown - green powder. Eye contact may result in permanent eye damage.

WARNING! Causes eye and skin irritation. Causes respiratory tract irritation. Irritant.

Target Organs: Eyes, skin.

### Ingestion:

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

**Inhalation:**

Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Can produce delayed pulmonary edema.

**Eye Contact:**

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

**Skin Contact:**

Causes skin irritation.

**Human/Animal data:** Not available.

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

**Other Carcinogenic** 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. 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:** May 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 ...**