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RHODAMINE B

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION:

Synonyms: Basic Violet 10; C.I. 45170. CAS No.: 81-88-9. Molecular Weight: 479.02. Chemical Formula: C28H31C1N2O3.

2. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Name	CAS No.	Percent	Hazardous
Rhodamine B	81-88-9	~ 100%	No

3. HAZARDS IDENTIFICATION:

Emergency Overview

Appearance: Green to violet crystals or powder. This substance has caused adverse reproductive and fetal effects in animals. **WARNING!** Causes eye and skin irritation. May cause digestive tract irritation. Causes respiratory tract irritation.

Target Organs: No data found.

Potential Health Effects

Eye: Causes eye irritation. 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. May cause chemical conjunctivitis.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. 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.

Chronic: Effects may be delayed. Adverse reproductive effects have been reported in animals.

4. FIRST AID MEASURES:

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical aid if irritation develops or persists. **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.

Notes to Physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES:

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam. **Flash Point:** Not available.

Auto-ignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (Estimated) Health: 2; Flammability: 0; Instability: 0

6. ACCIDENTAL RELEASE MEASURES:

General Information: Use proper personal protective equipment as indicated in Section 8. **Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment Section. Avoid generating dusty conditions. Provide ventilation.

7. HANDLING AND STORAGE:

Handling: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

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. **Exposure Limits**

Exposure Linnes			
<u>Chemical Name</u>	ACGIH	NIOSH	OSHA-Final PELs
Rhodamine B	None listed	None listed	None listed.

OSHA Vacated PELs: Rhodamine B: No OSHA Vacated PELs are listed for this chemical.

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 EN 166.

Skin: Wear appropriate protective gloves 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.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Crystals or Powder.
Appearance: Green to violet.
Odor: Strong.
pH: Not available.
Vapor Pressure: Negligible.
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 210 deg C (dec.)

Decomposition Temperature: >210 deg C.

Solubility: Soluble in water, ethanol and methyl Cellosolve and slightly soluble in acetone. **Specific Gravity/Density:** >1.0

10. STABILITY AND REACTIVITY:

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents. **Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION:

RTECS#: CAS# 81-88-9: BP 3675000. LD50/LC50: CAS# 81-88-9: Oral, mouse: LD50 = 887 mg/kg; Carcinogenicity: CAS# 81-88-9: California: Carcinogen; initial date 7/1/90. IARC: Group 3 carcinogen. Epidemiology: IARC Group 3: Suspected animal carcinogenic substance of potential relevance to humans. According to RTECS, rhodamine is an equivocal tumorigenic agent causing tumors on rats at the site of application. Teratogenicity: Toxic dose, rat = 3870 mg/kg.

Reproductive Effects: Reproductive effects have occurred in experimental animals.

Neurotoxicity: No information available.

Mutagenicity: Mutagenic effects have occurred in experimental animals.

Other Studies: See actual entry in RTECS for complete information.

12. ECOLOGICAL INFORMATION:

No information available.

13. DISPOSAL CONSIDERATIONS:

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 and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

14. TRANSPORT REGULATIONS:

No information available.

15. REGULATORY INFORMATION:

US FEDERAL

TSCA CAS# 81-88-9 is listed on the TSCA inventory.

Health & Safety Reporting List None of the chemicals are on the Health and Safety List.

Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule.

Section 12b None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA. **SARA**

Section 302 (RQ) None of the chemicals in this material have an RQ.

Section 302 (TPQ) None of the chemicals in this product have a TPQ.

SARA Codes CAS# 81-88-9: acute, chronic.

Section 313 This material contains Rhodamine B (CAS# 81-88-9, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. **Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE CAS# 81-88-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

The following statement(s) is (are) made in order to comply with the California Safe Drinking Water Act: WARNING! This product contains Rhodamine B, a chemical known to the state of California to cause cancer. California No Significant Risk Level: None of the chemicals in this product are listed.

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases: R 22 Harmful if swallowed. R 40 Limited evidence of a carcinogenic effect. **Safety Phrases:** S 36/37 Wear suitable protective clothing and gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible).

WGK (Water Danger/Protection) CAS# 81-88-9: 2

Canada - DSL/NDSL CAS# 81-88-9 is listed on Canada's DSL List.

Canada - WHMIS This product has a WHMIS classification of D2A, D2B.

Canadian Ingredient Disclosure List CAS# 81-88-9 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

16. DISCLAIMER INFORMATION:

DISCLAIMER:

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