

MSDS Number: **R5400** \* \* \* \* \* *Effective Date: 09/14/09* \* \* \* \* \*  
*Supercedes: 06/20/07*



**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. And Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# RHODAMINE B

## 1. Product Identification

**Synonyms:** Ammonium, (o-carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene)die thyl-, chloride; FD and C Red No. 19; Basic Violet 10; Rhodamine O; Tetraethylrhodamine; CI 45170

**CAS No.:** 81-88-9

**Molecular Weight:** 479.02

**Chemical Formula:** C<sub>28</sub>H<sub>31</sub>N<sub>2</sub>O<sub>3</sub>Cl

**Product Codes:** U872

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Hazardous		
-----	-----	-----
-----		
Rhodamine B	81-88-9	100%
Yes		

---

### 3. Hazards Identification

#### Emergency Overview

-----

**CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

-----

---  
Health Rating: 1 - Slight

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

-----

#### Potential Health Effects

-----

Information on the human health effects from exposure to this substance is limited.

##### **Inhalation:**

May cause irritation to the respiratory tract. Symptoms may include coughing, sore throat, labored breathing, and chest pain.

##### **Ingestion:**

No information found, but compound should be handled as a potential health hazard.

May cause irritation to the gastro-intestinal tract.

##### **Skin Contact:**

May cause irritation with redness and pain.

##### **Eye Contact:**

May cause irritation, redness and pain.

##### **Chronic Exposure:**

Possible cancer hazard based on animal data. Rhodamine dyes can cause phototoxic or photoallergic reactions.

##### **Aggravation of Pre-existing Conditions:**

No information found.

---

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of water for at least 15 minutes. Call a physician if irritation develops.

**Eye Contact:**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Call a physician if irritation persists.

---

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

None established.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

### **Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

### **Appearance:**

Green crystals or reddish-violet powder

### **Odor:**

No information found.

### **Solubility:**

Very soluble in water.

### **Specific Gravity:**

No information found.

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

No information found.

**Boiling Point:**

No information found.

**Melting Point:**

No information found.

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

Burning may produce ammonia, carbon monoxide, carbon dioxide, nitrogen oxides.

May produce hydrogen chloride.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizers.

**Conditions to Avoid:**

Incompatibles.

---

## 11. Toxicological Information

**Toxicological Data:**

Oral mouse LD50: 887 mg/kg; investigated as a mutagen, tumorigen, reproductive effector

**Carcinogenicity:**

There is limited evidence that this material causes cancer in laboratory animals. There is no evidence that this material causes cancer in humans.

-----\Cancer Lists\-----			
Ingredient Category	---NTP Carcinogen---		IARC
	Known	Anticipated	
Rhodamine B (81-88-9)	No	No	3

## 12. Ecological Information

### Environmental Fate:

No information found.

### Environmental Toxicity:

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Rhodamine B (81-88-9)	Yes	Yes	Yes	Yes

  

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	Canada DSL	NDSL	Phil.

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	RQ	TPQ	List	Chemical
Rhodamine B (81-88-9)	Yes	Yes	No	Yes
-----\Federal, State & International Regulations - Part 2\-----				
Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)	
Rhodamine B (81-88-9)	No	No	No	

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No  
Reactivity: No (Pure / Solid)

**WARNING:**

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: **1** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Label Precautions:**

- Avoid breathing dust.
- Avoid contact with eyes, skin and clothing.
- Keep container closed.
- Use with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. Call a physician. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. Call a physician if irritation develops or persists. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*  
\*\*\*\*\*

**Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

\*\*\*\*\*  
\*\*\*\*\*

**Prepared by:** Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)