

## Material Safety Data Sheet

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Version 1.8

Regulation (EC) No 1907/2006

## 1 - Product and Company Information

Product Name	RHODAMINE B
Product Number	R6626
Company	Sigma-Aldrich Pte Ltd #02-14 The Capricorn, Sci. Park II Singapore 117528 Singapore
Technical Phone #	(65) 6779 1200
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## 2 - Hazards Identification

## SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Harmful if swallowed. Risk of serious damage to eyes.

## 3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
RHODAMINE B	81-88-9	201-383-9	None

Formula	C28H31ClN2O3
Molecular Weight	479.02 AMU
Synonyms	Acid Brilliant Pink B * ADC Rhodamine B * Aizen Rhodamine BH * Akiriku Rhodamine B * Aizen Rhodamine BHC * Basic Violet 10 * Brilliant Pink B * Calcozine Red BX * Calcozine Rhodamine BXP * 9-o-Carboxyphenyl-6-diethylamino-3-ethylimino-3-i soxanthene, 3-ethochloride * (9-(o-Carboxyphenyl)-6-(diethylamino)-3H-xanthen- 3-ylidene) diethylammonium chloride * Cerise Toner X1127 * C.I. 749 * C.I. 45170 * C.I. Basic Violet 10 * C.I. Food Red 15 * Cogilor Red 321.10 * Cosmetic Brilliant Pink Bluish D Conc * D & C Red No.19 * Diabasic Rhodamine B * Edicol Supra Rose B * Edicol Supra Rose BS * Elcozine Rhodamine B * Eriosin Rhodamine B * FD&C Red No. 19 * Food Red 15 * Geranium Lake N * Hexacol Rhodamine B Extra * Ikada Rhodamine B * Iragen Red L-U * Mitsui Rhodamine BX * 11411 Red * Red No. 213 * Rheonine B * Rhodamine B * Rhodamine B 20-7470 * Rhodamine BA * Rhodamine BA Export * Rhodamine B chloride * Rhodamine B Extra * Rhodamine B Extra M 310 * Rhodamine B Extra S * Rhodamine BF * Rhodamine B500 * Rhodamine B500 hydrochloride * Rhodamine BN * Rhodamine BS *

## 4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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### 5 - Fire Fighting Measures

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#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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### 6 - Accidental Release Measures

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PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL  
Evacuate area.

#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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### 7 - Handling and Storage

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#### HANDLING

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Conditions of Storage: Keep tightly closed.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

## PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

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## 9 - Physical and Chemical Properties

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Appearance	Physical State: Solid	
	Color: Red	
	Form: Powder	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	210.0 - 211.0 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	0.79 g/cm <sup>3</sup>	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Materials to Avoid: Oxidizing agents, Reducing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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RTECS NUMBER: BP3675000

### ACUTE TOXICITY

LD50

Intraperitoneal  
Rat  
112 MG/KG

LD50  
Intravenous  
Rat  
89 MG/KG

LD50  
Oral  
Mouse  
887 mg/kg

LD50  
Intraperitoneal  
Mouse  
144 MG/KG

LD50  
Subcutaneous  
Mouse  
180 MG/KG

#### IRRITATION DATA

Eyes  
Rabbit  
Remarks: Severe irritation effect  
Skin  
Rabbit  
Remarks: No irritation effect

#### SENSITIZATION

Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

#### SIGNS AND SYMPTOMS OF EXPOSURE

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

#### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: Causes severe eye irritation.  
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.  
Ingestion: Harmful if swallowed.

#### TARGET ORGAN INFORMATION

Kidneys. Lungs. Spleen. G.I. System. Liver.

#### CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Rat  
Route of Application: Subcutaneous  
Exposure Time: 68W  
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Blood: Lymphomas including Hodgkin's disease.

Tumorigenic:Tumors at site or application.

Rat

Route of Application: Subcutaneous

Exposure Time: 68W

Result: Tumorigenic:Tumors at site or application.

Tumorigenic:Equivocal tumorigenic agent by RTECS criteria.

#### IARC CARCINOGEN LIST

Rating: Group 3

#### CHRONIC EXPOSURE - MUTAGEN

Result: Laboratory experiments have shown mutagenic effects.

Hamster

900 UMOL/PLATE

Cell Type: ovary

DNA damage

Hamster

20 UMOL/L

5H

Cell Type: ovary

Cytogenetic analysis

Hamster

10 MG/L

Cell Type: lung

Cytogenetic analysis

Mammal

2 MG/L

Cell Type: fibroblast

Cytogenetic analysis

ZPOS

Histidine reversion (Ames)

#### CHRONIC EXPOSURE - TERATOGEN

Species: Mouse

Dose: 60 MG/KG

Route of Application: Intraperitoneal

Exposure Time: (7-10D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

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## 12 - Ecological Information

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#### ECOTOXICOLOGICAL EFFECTS

Test Type: EC50 Daphnia

Species: Daphnia magna

Time: 48 h

Value: 22.9 mg/l

Test Type: LC50 Fish

Species: Cyprinodon variegatus (Sheepshead minnow)

Time: 48 h

Value: 83.9 mg/l

Test Type: LC50 Fish  
Species: Lepomis macrochirus (Bluegill)  
Time: 96 h  
Value: 379 mg/l

Test Type: LC50 Fish  
Species: Onchorhynchus mykiss (Rainbow trout)  
Time: 96 h  
Value: 217 mg/l

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## 13 - Disposal Considerations

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### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

Non-hazardous for road transport.

### IMDG

Non-hazardous for sea transport.

### IATA

Non-hazardous for air transport.

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xn

Harmful.

R-PHRASES: 22-41

Harmful if swallowed. Risk of serious damage to eyes.

S-PHRASES: 26-39

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

### COUNTRY SPECIFIC INFORMATION

#### Germany

WGK: 2

Self-Classification

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## 16 - Other Information

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### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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