### Section 1 - Product and Company Information

**Product Name** | RHODAMINE 6G (LASER DYE)
---|---
**Product Number** | 252433
**Brand** | SIAL
**Company** | Sigma-Aldrich Canada, Ltd
**Address** | 2149 Winston Park Drive
Oakville ON L6H 6J8 CA
**Technical Phone:** | 9058299500
**Fax:** | 9058299292
**Emergency Phone:** | 800-424-9300

### Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHODAMINE 6G</td>
<td>989-38-8</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Formula** | C28H31N2O3.Cl
**Synonyms**
- Aizen Rhodamine 6GCP
- *Basic Red 1*
- *Basic Rhodamine Yellow*
- *Basic Rhodaminic Yellow*
- Calcozine Red 6G
- Calcozine Rhodamine 6GX
- Cerven zasadita 1 (Czech)
- *C. I. 45160*
- *C. I. Basic Red 1, monohydrochloride*
- *Elcozine Rhodamine 6GDN*
- *Eljon Pink Toner*
- *Fanal Pink B*
- *Fanal Pink GFK*
- *Fanal Red 25532*
- *Flexo Red 482*
- *Heliostable Brilliant Pink B Extra*
- *Mitsui Rhodamine*
- *Mitsui Rhodamine 6GCP*
- *NCI-C56122*
- *Nyco Liquid Red GF*
- *Rh 6G*
- *Rhodamine 590 chloride*
- *Rhodamine 69DN Extra*
- *Rhodamine F4G*
- *Rhodamine F5G*
- *Rhodamine F5G chloride*
- *Rhodamine F 5GL*
- *Rhodamine 6G*
- *Rhodamine 6GB*
- *Rhodamine 6G (biological stain)*
- *Rhodamine 6GBN*
- *Rhodamine 6G chloride*
- *Rhodamine 6GCP*
- *Rhodamine 4GD*
- *Rhodamine 6GD*
- *Rhodamine GDN*
- *Rhodamine 5GDN*
- *Rhodamine 6 GDN*
- *Rhodamine 6 GD Extra*
- *Rhodamine 6GEX ethyl ester*
- *Rhodamine 6G Extra*
- *Rhodamine 6G Extra Base*
- *Rhodamine 4GH*
- *Rhodamine 6GH*
- *Rhodamine 5GL*
- *Rhodamine 6G Lake*
- *Rhodamine 6GO*
- *Rhodamine 6GX*
- *Rhodamine J*
- *Rhodamine 6JH*
- *Rhodamine 7JH*
- *Rhodamine Lake Red 6G*
- *Rhodamine Y 20-7425*
- *Rhodamine ZH*
- *Rhodamine 6ZH*
- *Rhodamine 6Zh-DN*
- *Rhodamin 6G*
- *Silosuper Pink B*
- *Vali Fast Red 1308*
- *Xanthylum, 9-(2-(ethoxycarbonyl)phenyl)-3,6-bis(ethylamino)-2,7-dimethyl-, chloride*

**RTECS Number:** DH0175000

### Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**
- Toxic (USA)
- Harmful (EU)
Harmful if swallowed.

HMIS RATING
HEALTH: 2*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING
HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

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

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

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

EYE EXPOSURE
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.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

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

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, 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.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Mechanical exhaust required. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: 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 full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State: Solid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color: Deep red</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Form: Powder</td>
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</tr>
<tr>
<td>Molecular Weight</td>
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</tr>
<tr>
<td>pH</td>
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<td></td>
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<tr>
<td>BP/BP Range</td>
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<td></td>
</tr>
<tr>
<td>MP/MP Range</td>
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<td></td>
</tr>
<tr>
<td>Freezing Point</td>
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<tr>
<td>Vapor Pressure</td>
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<tr>
<td>Vapor Density</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<tr>
<td>SG/Density</td>
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<td>Bulk Density</td>
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<td>Odor Threshold</td>
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<td>Volatile%</td>
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<tr>
<td>Water Content</td>
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<tr>
<td>Solvent Content</td>
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<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Surface Tension</td>
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<td></td>
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</tbody>
</table>
Partition Coefficient: N/A
Decomposition Temp.: N/A
Flash Point: N/A
Explosion Limits: N/A
Flammability: N/A
Autoignition Temp.: N/A
Refractive Index: N/A
Optical Rotation: N/A
Miscellaneous Data: N/A
Solubility: N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and nitrogen oxides, Hydrogen chloride gas.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

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

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA
Oral
Rat
400 mg/kg
LD50

Intraperitoneal
Mouse
6150 UG/KG
LD50

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.

Species: Rat
Route of Application: Oral
Dose: 7725 MG/KG
Exposure Time: 2Y
Frequency: C
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS
criteria. Skin and Appendages: Other: Tumors.
Species: Rat
Route of Application: Subcutaneous
Dose: 100 MG/KG
Exposure Time: 1Y
Frequency: I
Result: Tumorigenic:Tumors at site or application.
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria.

IARC CARCINOGEN LIST
Rating: Group 3

NTP CARCINOGEN LIST
Rating: Equivocal evidence.
Species: Rat
Route: Feed

CHRONIC EXPOSURE - TERATOGEN
Species: Mouse
Dose: 4 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (7-10D PREG)
Result: Effects on Embryo or Fetus: Fetal death.

Species: Mouse
Dose: 2 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (7-10D PREG)
Result: Effects on Embryo or Fetus: Other effects to embryo.

Species: Mouse
Dose: 2 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (7-10D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or Fetus: Other effects to embryo.

CHRONIC EXPOSURE - MUTAGEN
Species: Mouse
Dose: 2500 UG/L
Cell Type: lymphocyte
Mutation test: Mutation in mammalian somatic cells.

Species: Hamster
Dose: 90 UMOL/L
Cell Type: ovary
Mutation test: DNA damage

Species: Hamster
Dose: 20 MG/L
Cell Type: ovary
Mutation test: Cytogenetic analysis

Species: Hamster
Dose: 19900 UG/L
Cell Type: ovary
Mutation test: Sister chromatid exchange
CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Mouse
Dose: 2 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (7-10D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Effects on Embryo or Fetus: Fetal death. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
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.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 22
Risk Statements: Harmful if swallowed.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Toxic (USA) Harmful (EU).
Risk Statements: Harmful if swallowed.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: Yes
DEMINIMIS: 1 %
NOTES: This product is subject to SARA section 313 reporting requirements.
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No
DISCLAIMER
For R&D use only. Not for drug, household or other uses.

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
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