

This SDS complies with the US OSHA HCS 2012.

## 1. Product and Company Identification

**Product Code:** 0003530  
**Product Name:** Auramine O/Rhodamine B Stain  
**Company Name:** CalibreScientific US, Inc. **Phone Number:** 1 (360)260-2779  
 1311 SE Cardinal Ct Suite 170  
 Vancouver, WA 98683  
**Web site address:** Alphatecsystems.com  
**Email address:** Regulatory@calibrescientific.com  
**Emergency Contact:** INFOTRAC  
 International 00-1- (352)323-3500  
**Information:** North America 1 (800)535-5053  
**Intended Use:** For Laboratory Use: Biological Staining  
**Product List** Auramine O/ Rhodamine B Stain, Also applies to Product Code:0003530C, 0003565.

## 2. Hazards Identification

**Flammable Liquids, Category 2**  
**Acute Toxicity: Inhalation, Category 4**  
**Acute Toxicity: Oral, Category 4**  
**Skin Corrosion/Irritation, Category 1B**  
**Serious Eye Damage/Eye Irritation, Category 1**  
**Germ Cell Mutagenicity, Category 2**  
**Carcinogenicity, Category 2**  
**Specific Target Organ Toxicity (repeated exposure), Category 2**



**GHS Signal Word:** **Danger**

**GHS Hazard Phrases:** H225 - Highly flammable liquid and vapor.  
 H302 - Harmful if swallowed.  
 H314 - Causes severe skin burns and eye damage.  
 H318 - Causes serious eye damage.  
 H332 - Harmful if inhaled.  
 H341 - Suspected of causing genetic defects.  
 H351 - Suspected of causing cancer .  
 H373 - May cause damage to through prolonged or repeated exposure.

**GHS Precautionary Phrases:** P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P233 - Keep container tightly closed.  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
 P264 - Wash hands thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**GHS Response Phrases:** P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

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|  | comfortable for breathing.<br>P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P308+313 - IF exposed or concerned: Get medical attention/advice.<br>P310 - Immediately call a POISON CENTER or doctor/physician.<br>P314 - Get medical attention/advice if you feel unwell.<br>P321 - Specific treatment 8-24.<br>P330 - Rinse mouth.<br>P363 - Wash contaminated clothing before reuse.  |
| <b>GHS Storage and Disposal Phrases:</b>             | P405 - Store locked up.<br>P501 - Dispose of contents/container to .safe area according to state and local guidelines.  |
| <b>Potential Health Effects (Acute and Chronic):</b> | May cause cancer according to animal studies.<br><br>Rhodamine B has caused tumors or has been a questionable tumorigenic agent in studies of subcutaneous injection in rats (RTECS , 2001). It increased thyroid and liver tumors in mice (Opresko, 1982) and produced lymphomas and intestinal tumors when given to mice in the drinking water (HSDB , 1997). However, Rhodamine B was not carcinogenic when given at up to 4% in the diet to rats for two years (Opresko, 1982). IARC has determined that rhodamine B has limited evidence of being an experimental animal carcinogen (Group 3) (RTECS ,<br><br>Possible risk of irreversible effects. |
| <b>Inhalation:</b>                                   | Causes respiratory tract irritation. May be harmful if inhaled. The toxicological properties of this substance have not been fully investigated.  |
| <b>Skin Contact:</b>                                 | Causes skin irritation. May cause skin irritation. May be absorbed through the skin in harmful amounts.   |
| <b>Eye Contact:</b>                                  | Causes eye irritation. May cause irreversible eye injury. Risk of serious damage to eyes.   |
| <b>Ingestion:</b>                                    | Harmful if swallowed. May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.   |

**3. Composition/Information on Ingredients**

| CAS #     | Hazardous Components (Chemical Name)   | Concentration     |
|-----------|--|-------------------|
| 56-81-5   | Glycerin {Glycerol}  | No Data.          |
| 64-17-5   | Ethyl alcohol {Ethanol}  | 1.2 -12.0 %       |
| 108-95-2  | Phenol {Carbolic acid; Hydroxybenzene}   | 0.8 -9.8 %        |
| 2465-27-2 | Auramine O {C.I. 41000; Basic Yellow} (manufacture)  | 3000. -12000. PPM |
| 67-56-1   | Methanol {Methyl alcohol; Carbinol; Wood alcohol}  | No Data.          |
| 67-63-0   | Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}  | No Data.          |
| 81-88-9   | C.I. Food Red 15 {Rhodamine B; 6-Bromo-1H,3H-naphtho[1,8-cd]pyran-1,3-dione; D & C Red No.19; Basic Violet 10} | 500.0 -5000. PPM  |

### 4. First Aid Measures

**Emergency and First Aid**

**Procedures:**

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| <b>In Case of Inhalation:</b>          | If breathing becomes difficult, call a physician. Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical aid. Do NOT use mouth-to-mouth resuscitation. Get medical aid if cough or other symptoms appear. |
| <b>In Case of Skin Contact:</b>        | In case of contact, immediately wash skin with soap and copious amounts of water. Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid. Wash clothing before reuse. Get medical aid if irritation develops or persists. Discard contaminated clothing in a manner which limits further exposure.   |
| <b>In Case of Eye Contact:</b>         | 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. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.  |
| <b>In Case of Ingestion:</b>           | Wash out mouth with water provided person is conscious. Call a physician. Get medical aid immediately. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. If victim is conscious and alert, give 2-4 cupfuls of milk or water.   |
| <b>Signs and Symptoms Of Exposure:</b> | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  |
| <b>Note to Physician:</b>              | Treat symptomatically and supportively.  |

### 5. Fire Fighting Measures

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| <b>Flash Point:</b>                      | No data.  |
| <b>Explosive Limits:</b>                 | LEL: No data.                      UEL: No data.  |
| <b>Autoignition Pt:</b>                  | No data.  |
| <b>Suitable Extinguishing Media:</b>     | In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.   |
| <b>Fire Fighting Instructions:</b>       | Specific Hazard(s): Emits toxic fumes under fire conditions.<br>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. Dust can be an explosion hazard when exposed to heat or flame. |
| <b>Flammable Properties and Hazards:</b> | No data available.  |
| <b>Hazardous Combustion Products:</b>    | No data available.  |

**6. Accidental Release Measures**

**Steps To Be Taken In Case Material Is Released Or Spilled:** PROCEDURE(S) OF PERSONAL PRECAUTION(S)  
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.  
Methods for cleaning up.  
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete. Use proper personal protective equipment as indicated in Section 8.  
Spills/Leaks: Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment. Clean up spills immediately, observing precautions in the Protective Equipment section.

**7. Handling and Storage**

**Precautions To Be Taken in Handling:** User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with skin and eyes. Keep container tightly closed. Do not ingest or inhale.

**Precautions To Be Taken in Storing:** Keep tightly closed.  
Store at 2-8°C. Store in a cool, dry place. Store in a cool, dry, well-ventilated area away from incompatible substances.

**8. Exposure Controls/Personal Protection**

| CAS #     | Partial Chemical Name  | OSHA TWA                        | ACGIH TWA                     | Other Limits |
|-----------|--|---------------------------------|-------------------------------|--------------|
| 56-81-5   | Glycerin {Glycerol}  | PEL: 15 (dust); 5 (resp.) mg/m3 | TLV: 10 mg/m3                 | No data.     |
| 64-17-5   | Ethyl alcohol {Ethanol}  | PEL: 1000 ppm                   | TLV: 1000 ppm                 | No data.     |
| 108-95-2  | Phenol {Carbolic acid; Hydroxybenzene}   | PEL: 5 ppm                      | TLV: 5 ppm                    | No data.     |
| 2465-27-2 | Auramine O {C.I. 41000; Basic Yellow} (manufacture)  | No data.                        | No data.                      | No data.     |
| 67-56-1   | Methanol {Methyl alcohol; Carbinol; Wood alcohol}  | PEL: 200 ppm                    | TLV: 200 ppm<br>STEL: 250 ppm | No data.     |
| 67-63-0   | Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}  | PEL: 400 ppm                    | TLV: 200 ppm<br>STEL: 400 ppm | No data.     |
| 81-88-9   | C.I. Food Red 15 {Rhodamine B; 6-Bromo-1H,3H-naphtho[1,8-cd]pyran-1,3-dione; D & C Red No.19; Basic Violet 10} | No data.                        | No data.                      | No data.     |

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| <b>Respiratory Equipment (Specify Type):</b>    | (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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 respirator use. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| <b>Eye Protection:</b>                          | Chemical safety goggles.<br>Skin-Specific: Chemical resistant apron. 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 EN166.   |
| <b>Protective Gloves:</b>                       | Wear appropriate protective gloves to prevent skin exposure.   |
| <b>Other Protective Clothing:</b>               | Wear appropriate protective clothing to prevent skin exposure.   |
| <b>Engineering Controls (Ventilation etc.):</b> | Safety shower and eye bath. Mechanical exhaust required. 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. Use only under a chemical fume hood.   |
| <b>Work/Hygienic/Maintenance Practices:</b>     | Wash thoroughly after handling. Wash contaminated clothing before reuse.   |

**9. Physical and Chemical Properties**

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| <b>Physical States:</b>                     | [ ] Gas    [X] Liquid    [ ] Solid               |
| <b>Appearance and Odor:</b>                 | Reddish.<br>phenol-like.                         |
| <b>pH:</b>                                  | No data.   |
| <b>Melting Point:</b>                       | No data.   |
| <b>Boiling Point:</b>                       | No data. / 0.0 mm Hg                             |
| <b>Flash Point:</b>                         | No data.   |
| <b>Evaporation Rate:</b>                    | No data.   |
| <b>Flammability (solid, gas):</b>           | No data available.                               |
| <b>Explosive Limits:</b>                    | LEL: No data.                      UEL: No data. |
| <b>Vapor Pressure:</b>                      | No data.   |
| <b>Vapor Density (vs. Air=1):</b>           | No data.   |
| <b>Specific Gravity (Water=1):</b>          | No data.   |
| <b>Solubility in Water:</b>                 | No data.   |
| <b>Saturated Vapor Concentration:</b>       | No data.   |
| <b>Octanol/Water Partition Coefficient:</b> | No data.   |
| <b>Autoignition Pt:</b>                     | No data.   |
| <b>Decomposition Temperature:</b>           | No data.   |
| <b>Viscosity:</b>                           | No data.   |

## 10. Stability and Reactivity

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| <b>Stability:</b>                                 | Unstable [ ]    Stable [ X ]   |
| <b>Conditions To Avoid - Instability:</b>         | Incompatible materials, dust generation, Strong oxidants.  |
| <b>Incompatibility - Materials To Avoid:</b>      | Strong oxidizing agents,<br><br>Strong reducing agents.  |
| <b>Hazardous Decomposition or Byproducts:</b>     | Carbon monoxide, Nitrogen oxides, irritating and toxic fumes and gases, Carbon dioxide, Hydrogen chloride, oxides of nitrogen. |
| <b>Possibility of Hazardous Reactions:</b>        | Will occur [ ]    Will not occur [ X ]   |
| <b>Conditions To Avoid - Hazardous Reactions:</b> | No data available.   |

## 11. Toxicological Information

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| <b>Toxicological Information:</b>         | <p>ROUTE OF EXPOSURE:</p> <p>Skin Contact: May cause skin irritation.</p> <p>Skin Absorption: May be harmful if absorbed through the skin.</p> <p>Eye Contact: May cause eye irritation.</p> <p>Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.</p> <p>Ingestion: May be harmful if swallowed. Epidemiology: Teratogenicity: No information available. Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies: IARC Group 2B: No data available on human carcinogenicity, however sufficient evidence of carcinogenicity in animals.</p> |
| <b>Sensitization:</b>                     | <p>Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.</p> <p>TARGET ORGAN(S) OR SYSTEM(S)<br/>Kidneys.</p>   |
| <b>Carcinogenicity/Other Information:</b> | <p>CAS# 1521-38-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 77-49-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 2465-27-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 81-88-9: ACGIH: Not listed. California: carcinogen, initial date 7/1/90. NTP: Not listed.</p>  |
| <b>Carcinogenicity:</b>                   | <p>NTP? No    IARC Monographs? No    OSHA Regulated? No</p>   |

## 12. Ecological Information

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| <b>General Ecological Information:</b> | <p>Environmental: No information available.</p> <p>Physical: No information available.</p> <p>Other: Do not empty into drains. Terrestrial: May undergo covalent chemical bonding with humic materials which can result in its chemical alteration to a latent form and tight adsorption. When covalently bound in this latent form, leaching in soil systems is not expected to occur. Aquatic: May undergo covalent bonding with humic materials in the water column and in sediment. Atmospheric: Particulate phase auramine hydrochloride will probably be removed from air via dry deposition, or degraded in air by photolysis based on its UV spectrum. Will slowly biodegrade but not bioconcentrate.</p> <p>Other: For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."</p> |
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### 13. Disposal Considerations

**Waste Disposal Method:** 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. 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. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
 RCRA P-Series: None listed.  
 RCRA U-Series: None listed.

### 14. Transport Information

**GHS Classification:** Flammable Liquids, Category 2 - Danger! Highly flammable liquid and vapor  
 Acute Toxicity: Inhalation, Category 4 - Warning! Harmful if inhaled  
 Acute Toxicity: Oral, Category 4 - Warning! Harmful if swallowed  
 Skin Corrosion/Irritation, Category 1B - Danger! Causes severe skin burns and eye damage  
 Serious Eye Damage/Eye Irritation, Category 1 - Danger! Causes serious eye damage  
 Germ Cell Mutagenicity, Category 2 - Warning! Suspected of causing genetic defects  
 Carcinogenicity, Category 2 - Warning! Suspected of causing cancer  
 Specific Target Organ Toxicity (repeated exposure), Category 2 - Warning! May cause damage to {<target organs>} through prolonged or repeated exposure

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Flammable liquids, corrosive, n.o.s. (Ethanol, Phenol)  
**DOT Hazard Class:** 3 FLAMMABLE LIQUID, CORROSIVE  
**UN/NA Number:** UN2924 **Packing Group:** III



**LAND TRANSPORT (Canadian TDG):**

**TDG Shipping Name:** Flammable liquids, corrosive, n.o.s. (Ethanol, Phenol)  
**UN Number:** UN2924 **Packing Group:** III  
**Hazard Class:** 3 (8) - FLAMMABLE LIQUID, CORROSIVE **TDG Classification:**

**LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Flammable liquids, corrosive, n.o.s. (Ethanol, Phenol)  
**UN Number:** UN2924 **Packing Group:** III  
**Hazard Class:** 3 (8) - FLAMMABLE LIQUID, CORROSIVE

**AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Flammable liquids, corrosive, n.o.s. (Ethanol, Phenol)  
**UN Number:** UN2924 **Packing Group:** III  
**Hazard Class:** 3 (8) - FLAMMABLE LIQUID,  
CORROSIVE

**15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

| CAS #     | Hazardous Components (Chemical Name)   | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-----------|--|--------------|-----------|--------------|
| 56-81-5   | Glycerin {Glycerol}  | No           | No        | No           |
| 64-17-5   | Ethyl alcohol {Ethanol}  | No           | No        | No           |
| 108-95-2  | Phenol {Carbolic acid; Hydroxybenzene}   | Yes 500 LB   | Yes NA    | Yes          |
| 2465-27-2 | Auramine O {C.I. 41000; Basic Yellow}<br>(manufacture)   | No           | No        | No           |
| 67-56-1   | Methanol {Methyl alcohol; Carbinol; Wood alcohol}  | No           | Yes NA    | Yes          |
| 67-63-0   | Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}  | No           | No        | Yes          |
| 81-88-9   | C.I. Food Red 15 {Rhodamine B; 6-Bromo-1H,3H-naphtho[1,8-cd]pyran-1,3-dione; D & C Red No.19; Basic Violet 10} | No           | No        | Yes          |

| CAS #     | Hazardous Components (Chemical Name)   | Other US EPA or State Lists  |
|-----------|--|--|
| 56-81-5   | Glycerin {Glycerol}  | CA PROP.65: No; MA Oil/HazMat: No; NJ EHS: No; PA HSL: Yes - 1                   |
| 64-17-5   | Ethyl alcohol {Ethanol}  | CA PROP.65: No; MA Oil/HazMat: Yes; NJ EHS: No; PA HSL: Yes - 1                  |
| 108-95-2  | Phenol {Carbolic acid; Hydroxybenzene}   | CA PROP.65: No; MA Oil/HazMat: Yes; NJ EHS: Yes - 1487; PA HSL: Yes - E          |
| 2465-27-2 | Auramine O {C.I. 41000; Basic Yellow}<br>(manufacture)   | CA PROP.65: No; MA Oil/HazMat: No; NJ EHS: No; PA HSL: Yes - B                   |
| 67-56-1   | Methanol {Methyl alcohol; Carbinol; Wood alcohol}  | CA PROP.65: Yes: RDTox.; MA Oil/HazMat: Yes; NJ EHS: Yes - 1222; PA HSL: Yes - E |
| 67-63-0   | Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}  | CA PROP.65: No; MA Oil/HazMat: No; NJ EHS: Yes - 1076; PA HSL: Yes - E           |
| 81-88-9   | C.I. Food Red 15 {Rhodamine B; 6-Bromo-1H,3H-naphtho[1,8-cd]pyran-1,3-dione; D & C Red No.19; Basic Violet 10} | CA PROP.65: Yes: Canc.; MA Oil/HazMat: No; NJ EHS: Yes - 0505; PA HSL: Yes - E   |



