

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Auramine O Rhodamine B Stain Solution

SYNONYMS: None

PRODUCT CODES: ES837, ES838, Component of ES854 (Auramine O Stain Kit)

MANUFACTURER: Azer Scientific, Inc.

ADDRESS: 701 Hemlock Rd, Morgantown, PA 19543

CHEMTREC PHONE: 800-424-9300

SUPPORT: 610-524-5810

FAX: 610-901-3046

PRODUCT USE: Biological Stain

PREPARED BY: CB

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Eye Damage/Irritation Category 2/2A, Skin Corrosion/Irritation Category 1C; Carcinogenicity Category 2; Flammable liquid Category 2



Signal Word: Danger!

Hazard Phrases	
H319	Causes serious eye irritation.
H314	Causes severe skin burns and eye damage.
H351	Suspected of causing cancer
H225	Highly flammable liquid and vapor.

Precautionary Phrases	
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P307+P311	IF exposed: Call a POISON CENTER or doctor/ physician.
P264	Wash hands thoroughly after handling.
P210	Keep away from heat, hot surfaces, sparks, open flames, and ignition sources.

SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% VOL
Ethanol	64-17-5	20
Auramine O	2465-27-2	<5
Rhodamine B	81-88-9	<4
Phenol 90%	108-95-2	~3
Glycerol	56-81-5	50
Water	7732-18-5	Balance

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.

SKIN: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists.

INGESTION: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if you feel unwell.

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABILITY OF THE PRODUCT: Combustible liquid

FLASH POINT: Not available

AUTOIGNITION TEMPERATURE: Not available

NFPA HAZARD CLASSIFICATION

HEALTH:2 FLAMMABILITY: 3 REACTIVITY: 0

OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH:2 FLAMMABILITY: 3 REACTIVITY: 0

PROTECTION:

EXTINGUISHING MEDIA: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

NOT SUITABLE: Do not use water jet.

SPECIAL FIRE FIGHTING PROCEDURES: Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst with the risk of a subsequent explosion.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon expected to be the primary combustion product. Additional decomposition compounds may include nitrogen oxides, sulfur oxides, halogenated compounds, metal oxide/oxides

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an

appropriate waste disposal container.

Large spill and leak: Shut off all ignition sources. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

STORAGE: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use away from heat, sparks, open flame or any other ignition source. Store at Room Temperature.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

RESPIRATORY PROTECTION: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: Neoprene

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

EXPOSURE GUIDELINES:

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS#	OSHA PEL TWA	Note
Phenol	108-95-2	5 ppm Ceiling	
Ethyl Alcohol	64-17-5	1000 ppm (1,900 mg/m ³)	29 CFR 1910.1000 Table Z-1 Limits for Air Containments
Glycerol	56-81-5	15 mg/m ³ 8hrs 5 mg/m ³ 8hrs	Total dust Respirable fraction

ACGIH Threshold Limit values (TLVs):

Reagent	CAS#	ACGIH PEL TWA	ACGIH STEL	Note
Phenol	108-95-2	5 ppm		
Ethyl Alcohol	64-17-5		1000 ppm	Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Dark Amber

ODOR: Characteristic Phenol

PHYSICAL STATE: liquid

pH AS SUPPLIED: 2.0-3.0

BOILING POINT: Not available

MELTING POINT: Not available

FREEZING POINT: Not available

VAPOR PRESSURE (mmHg): Not available

VAPOR DENSITY (AIR = 1): Not available

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Soluble in water

MOLECULAR WEIGHT: Mixture

VISCOSITY: Not established

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of use.

CONDITIONS TO AVOID (STABILITY): Avoid heat, sparks, flames, and all other sources of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents, strong acids and bases.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: oxides of carbon.

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral LD50: Phenol: Rabbit-420 mg/kg; Rat- 400-650 mg/kg; Mouse- 282-427 mg/kg

Auramine: Rat- 1500 mg/kg

Ethanol: Mouse 3450 mg/kg

Glycerol: Rat >25,000 mg/kg

Inhalation LC50: Phenol: Rat 900 mg/m³ for 8 h

Ethanol: Rat 20,000 ppm for 10 h

Dermal LD50: Glycerol: 850 - 1400 mg/kg (Rabbit)

Other information on acute toxicity: No data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Ethanol	64-17-5	Listed	Listed	Listed
Phenol	108-95-2	Not listed	Not listed	Not listed
Auramine O	2465-27-2	Listed	Not listed	Not listed

Specific target organ toxicity - single exposure (Globally Harmonized System): Respiratory system

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects

Inhalation Harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin.

Eyes Causes eye irritation.

SIGNS AND SYMPTOMS OF EXPOSURE: Phenol is absorbed through intact skin and is highly toxic by ingestion, inhalation or contact. Gastrointestinal effects include: nausea, pain, bloody vomit and diarrhea.

ROUTES OF ENTRY: Skin/eye contact, inhalation, and ingestion.

TARGET ORGANS: Central nervous system, Lungs, Eyes, Cardiovascular system

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:

Glycerol (56-81-5)

Freshwater Algae EC50 Not listed

Freshwater Fish LC50 51-57 mL/L, 96h static

Microtox EC50 Not listed

Water Flea EC50 >500 mg/L, 24h

Phenol (108-95-2)

Freshwater Algae EC50 197-279 mg/L, 72h, *Desmodesmus subspicatus*

Freshwater Fish LC50 4-7 mg/L, 96h

Microtox EC50 21-36 mg/L, 30 min

Water Flea EC50 10.2-15.5 mg/L, 48h, *Daphnia magna*

Auramine (2465-27-2)

Freshwater Algae EC50 Not listed

Freshwater Fish LC50 3.2 mg/L, 48h, *Oryzias Latipes*

Microtox EC50 Not listed

Water Flea EC50 Not listed

PERSISTENCE AND DEGRADABILITY: Biodegradation is expected

BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely.

MOBILITY IN SOIL: No data available

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

UN No. UN1170
Proper Shipping Name Ethanol Solution
Hazard Class 3
Packing Group II

TDG

UN No. UN1170
Proper Shipping Name Ethanol Solution
Hazard Class 3
Packing Group II

IATA

UN No. UN1170
Proper Shipping Name Ethanol Solution
Hazard Class 3
Packing Group II

IMDG/IMP

UN No. UN1170
Proper Shipping Name Ethanol Solution
Hazard Class 3
Packing Group II

SECTION 15: REGULATORY INFORMATION

United States

HCS Classification: Target Organ Effect, Irritant, Toxic by skin absorption

U.S. Federal regulations:

TSCA 8(a) IUR: Listed on inventory.

United States inventory (TSCA 8b): Listed on inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Phenol: Acute Health Hazard; Chronic Health Hazard, Ethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Auramine O: Chronic Health hazard

SARA 313 Form R - Reporting: The following components are subject to reporting levels established

DEA List I & II Chemicals

(Precursor Chemicals): Not Listed

CERCLA:

RTK STATES: Phenol CAS#108-95-2 Ethyl Alcohol CAS#64-17-5 PA, NJ, MA, RI, IL Auramine O CAS# 2465-27-2 PA, NJ

California Prop. 65



WARNING: This product can expose you to chemicals including Auramine O which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

CANADA

WHMIS (Canada):

B3 Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
D2A Material causing other toxic effects (Very toxic).

Canadian lists:

CEPA Toxic substances: The following components are listed: Phenol CAS#108-95-2

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed:

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

SECTION 16: OTHER INFORMATION

National Fire Protection Association (U.S.A.)

DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Azer Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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