

Safety Data Sheet

Auramine-Rhodamine

Section 1 - Chemical Product and Company Identification

SDS Name: Auramine-Rhodamine

Catalog Numbers: SO-868, A-102-2

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H303-Acute toxicity, oral: 5

H313-Acute toxicity, dermal: 5

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

H332-Acute toxicity, inhalation: 4

H335-Specific target organ toxicity, single exposure; Respiratory tract irritation: 3

H336-Specific target organ toxicity, single exposure; Narcotic effects: 3

H341-Germ cell mutagenicity: 2

H351-Carcinogenicity: 2

H361-Reproductive toxicity: 2

H373-Specific target organ toxicity, repeated exposure: 2

H402-Hazardous to the aquatic environment, acute hazard: 3

H412-Hazardous to the aquatic environment, long-term hazard: 3

1.76% of the mixture consists of ingredients of unknown acute inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

Hazard Statements:

H303-May be harmful if swallowed
H313-May be harmful in contact with skin
H314-Causes severe skin burns and eye damage
H318-Causes serious eye damage
H332-Harmful if inhaled
H335-May cause respiratory irritation
H336-May cause drowsiness or dizziness
H341-Suspected of causing genetic defects
H351-Suspected of causing cancer
H361-Suspected of damaging fertility or the unborn child
H373-May cause damage to organs through prolonged or repeated exposure (target organs: kidney, liver, and blood)
H402-Harmful to aquatic life
H412-Harmful to aquatic life with long lasting effects

Precautionary Statements:

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P271-Use only outdoors or in a well-ventilated area.
P273-Avoid release to the environment.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P312-If on skin: Call a Poison Center/doctor if you feel unwell.
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313-If exposed or concerned: Get medical advice/attention.
P310-Immediately call a Poison Center/doctor.
P312-Call a Poison Center/doctor if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P363-Wash contaminated clothing before reuse.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
2465-27-2	Auramine O	1.2 w/v
81-88-9	Rhodamine B	0.56 w/v
56-81-5	Glycerin	55.5 v/v
108-95-2	Phenol	8.2 v/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

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. Seek immediate medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek immediate medical attention.

Oral Exposure: If swallowed, seek immediate medical attention. Do not induce vomiting. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. See immediate medical advice.

Section 5 - Fire Fighting Measures

General Information: 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 gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam. Do not use a heavy water stream.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, hydrogen chloride gas, irritating and toxic fumes and gases, corrosive vapors.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Take precautionary measures against static discharges.

Methods for Cleaning up: Carefully soak up with inert absorbent material (such as sand, earth, or vermiculite) and containerize for proper disposal. Provide ventilation. Remove all sources of ignition. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep in a tightly closed container. **Store in the refrigerator (4°C).** Keep away from incompatible materials. Keep away from heat, flames, sparks, and hot surfaces.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: 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.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: 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 a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Auramine O CAS#2465-27-2	Not listed	Not listed	Not listed
Rhodamine B CAS#81-88-9	Not listed	Not listed	Not listed
Glycerin CAS#56-81-5	Not listed	Not listed	5 mg/m ³ TWA 15 mg/m ³ TWA
Phenol CAS#108-95-2	5 ppm Skin TWA	5 ppm TWA 19 mg/m ³ TWA 15.6 ppm Ceiling 60 mg/m ³ Ceiling 250 ppm IDLH	5 ppm TWA 19 mg/m ³ TWA

OSHA Vacated PELs: Glycerin: 5 mg/m³ TWA; 10 mg/m³ TWA
Phenol: 5 ppm TWA; 19 mg/m³ Skin TWA

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Red

Odor: Not available

Vapor Pressure: Not available

Odor Threshold: Not available
Vapor Density: Not available
pH: Approx. 2.7
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. **Keep refrigerated (4 °C).**
Conditions to Avoid: Incompatible materials, ignition sources, direct sunlight, and excess heat. Avoid freezing.
Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents, acids, bases, halogens, lead, and metals.
Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, hydrogen chloride gas, irritating and toxic fumes and gases, corrosive vapors.

Section 11 - Toxicological Information

CAS#2465-27-2 Auramine O: RTECS#: BY3675000

LD50 Oral: 1490 mg/kg (rat)
LD50 Dermal: 300 mg/kg (mouse)
LC50 Inhalation: Not available

Carcinogenicity: Auramine O CAS#2465-27-2 is not listed by NTP, ACGIH, OSHA, or California Prop. 65. Auramine O is listed by IARC (Group 2B, Possibly Carcinogenic to Humans).

CAS#81-88-9 Rhodamine B: RTECS#: BP3675000

LD50 Oral: 887 mg/kg (mouse)
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Rhodamine B CAS#81-88-9 is not listed by NTP, ACGIH, or OSHA. Rhodamine B is listed by IARC (Group 3, Not Classifiable as to its Carcinogenicity to Humans) and California Prop. 65 as a carcinogen.

CAS#56-81-5 Glycerin: RTECS#: MA8050000

LD50 Oral: 12600 mg/kg (rat)

LD50 Dermal: >10 g/kg (rabbit)
LC50 Inhalation: >2.75 mg/L 4h mist (rat)

Carcinogenicity: Glycerin CAS#56-81-5 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#108-95-2 Phenol: RTECS#: SJ3325000

LD50 Oral: 340 mg/kg (rat)
LD50 Dermal: 630 mg/kg (rabbit)
LC50 Inhalation: 0.5667 mg/L 4h dust/mist (calculation method)

Carcinogenicity: Phenol CAS#108-95-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.

Teratogenicity: Not available.

Reproductive Effects: Experiments with Phenol have shown reproductive toxicity effects on laboratory animals.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Possible risk of irreversible effects.

Specific Target Organ Toxicity, Single Exposure: Not available.

Specific Target Organ Toxicity, Repeated Exposure: Kidney, liver, and blood.

Symptoms associated with exposure: Symptoms of overexposure may include headache, dizziness, tiredness, nausea, vomiting, burning sensation, cough, wheezing, laryngitis, shortness of breath. May cause damage to organs (kidney, liver, blood). Ingestion may cause swelling and damage to the delicate tissue with danger of perforation. Ingestion of even a small quantity of this material may result in a serious health hazard.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to environment. Do not release to drains. Harmful to aquatic life. May cause long-term adverse effects in the environment.

CAS#2465-27-2 Auramine O:

LC50, freshwater fish: 3.2 mg/L 48h (oryzias latipes)(orange-red killifish)

CAS#81-88-9 Rhodamine B:

LC50, freshwater fish: 83.9 mg/L 48h (cyprinus carpio)(carp)
LC50, freshwater fish: 379 mg/L 96h (lepomis macrochirus)(bluegill)
EC50, water flea: 22.9 mg/L 48h (daphnia magna)

CAS#56-81-5 Glycerin:

LC50, freshwater fish: 51-57 mL/L 96h static (oncorhynchus mykiss)(rainbow trout)

CAS#108-95-2 Phenol:

LC50, freshwater fish: 8.9 mg/L 96h flow-through (oncorhynchus mykiss)(rainbow trout)

EC50, freshwater algae: 61.1 mg/L 96h static (pseudokirchneriella subcapitata)(green algae)

EC50, freshwater algae: 187-279 mg/L 72h static (desmodesmus subspicatus)(green algae)

EC50, water flea: 4.24-10.7 mg/L 48h static (daphnia magna)

EC50, water flea: 3.1 mg/L 48h static (ceriodaphnia dubia)

EC50, microtox: 23.28 mg/L 5min

IC50, bacteria: 21 mg/L 24h static (microorganisms)

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Proper shipping name: Phenol Solutions

UN2821

PG II

Hazard Class 6.1

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 10-15-12

Revision #1: YM 7-14-14

Revision #2: 3-1-21

Revision #3: 10-4-23

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