

Safety Data Sheet

Aniline-Eosin Solution

Section 1 - Chemical Product and Company Identification

SDS Name: Aniline-Eosin Solution

Catalog Numbers: A-109-2

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

H225-Flammable liquids: 2

H302-Acute toxicity, oral: 4

H313-Acute toxicity, dermal: 5

H315-Skin corrosion/irritation: 2

H317-Sensitisation, skin: 1

H318-Serious eye damage/eye irritation: 1

H333-Acute toxicity, inhalation: 5

H341-Germ cell mutagenicity: 2

H351-Carcinogenicity: 2

H370-Specific target organ toxicity, single exposure: 1

H372-Specific target organ toxicity, repeated exposure: 1

H401-Hazardous to the aquatic environment, acute hazard: 2

H411-Hazardous to the aquatic environment, long-term hazard: 2

1.4% of the mixture consists of ingredients of unknown acute inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

Hazard statements:

H225-Highly flammable liquid and vapour
H302-Harmful if swallowed
H313-May be harmful in contact with skin
H315-Causes skin irritation
H317-May cause an allergic skin reaction
H318-Causes serious eye damage
H333-May be harmful if inhaled
H341-Suspected of causing genetic defects
H351-Suspected of causing cancer
H370-Causes damage to organs (target organs: respiratory system, central nervous system, and optic nerve).
H372-Causes damage to organs through prolonged or repeated exposure (target organs: kidney, liver, spleen, and blood).
H401-Toxic to aquatic life
H411-Toxic 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.
P210-Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233-Keep container tightly closed.
P240-Ground and bond container and receiving equipment.
P241-Use explosion-proof electrical/ventilating/lighting equipment.
P242-Use non-sparking tools.
P243-Take action to prevent static discharges.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P272-Contaminated work clothing should not be allowed out of the workplace.
P273-Avoid release to the environment.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P302+P312-If on skin: Call a Poison Center/doctor if you feel unwell.
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.
P302+P352-If on skin: Wash with plenty of soap and water.
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P312-If inhaled: Call a Poison Center/doctor if you feel unwell.
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+P311-If exposed or concerned: Call a Poison Center/doctor.
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.
P330-Rinse mouth.
P332+P313-If skin irritation occurs: Get medical advice/attention.
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.
P362+P364-Take off contaminated clothing and wash it before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam to extinguish.
P391-Collect spillage.
P403+P235-Store in a well-ventilated place. Keep cool.

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
62-53-3	Aniline	2.9 v/v
17372-87-1	Eosin Y	1.4 w/v
64-19-7	Glacial Acetic Acid	1 v/v
64-17-5	Ethyl alcohol	95 v/v
67-56-1	Methyl alcohol	5 v/v

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. Call a physician.

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

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

Inhalation Exposure: If inhaled, remove to fresh air. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides, bromine, hydrogen bromide gas, formaldehyde, irritating and toxic fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 3; Flammability: 4; Instability: 0

NOTE: Static discharge could act as an ignition source.

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. Keep away from heat. Eliminate all sources of ignition.

Methods for Cleaning up: Absorb with inert material such as sand, earth, or vermiculite. Do NOT absorb with combustible material such as saw dust or cellulosic material. Carefully sweep up and containerize for proper disposal. Use only non-sparking tools. Use explosion-proof equipment and take precautionary measures against static discharge. 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. Store in a cool, dry, and well-ventilated area. Keep in a tightly closed and non-metal container. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Use proper grounding procedures to avoid static electricity. Keep away from incompatible materials. Protect from light. Protect from heat. Vapors heavier than air may travel considerable distance and ignite or explode.

NOTE: Static discharge could act as an ignition source.

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
Aniline Blue CAS#62-53-3	2 ppm TWA Skin	100 ppm IDLH	5 ppm TWA 19 mg/m3 TWA
Eosin Y CAS#17372-87-1	Not listed	Not listed	Not listed
Glacial Acetic Acid CAS#64-19-7	10 ppm TWA 15 ppm STEL	10 ppm TWA 25 mg/m3 TWA 15 ppm STEL 37 mg/m3 STEL 50 ppm IDLH	10 ppm TWA 25 mg/m3 TWA
Ethyl Alcohol CAS#64-17-5	1000 ppm STEL	1000 ppm TWA 1900 mg/m3 TWA 3300 ppm IDLH	1000 ppm TWA 1900 mg/m3 TWA
Methyl Alcohol CAS#67-56-1	200 ppm TWA 250 ppm STEL	200 ppm TWA 260 mg/m3 TWA 250 ppm STEL 325 mg/m3 STEL 6000 ppm IDLH	200 ppm TWA 260 mg/m3 TWA

OSHA Vacated PELs: Aniline Blue: 2 ppm TWA; 8 mg/m3 TWA Skin
 Glacial Acetic Acid: 10 ppm TWA; 25 mg/m3 TWA
 Ethanol: 1000 ppm TWA; 1900 mg/m3 TWA
 Methanol: 200 ppm TWA; 260 mg/m3 TWA; 250 ppm STEL; 325
 mg/m3 STEL

Section 9 - Physical and Chemical Properties
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Physical State: Liquid**Appearance:** Dark red**Odor:** Pungent**Vapor Pressure:** Not available**Odor Threshold:** Not available**Vapor Density:** Not available**pH:** Approx. 5.9**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. Reacts violently with oxidizers: Risk of fire/explosion.

Conditions to Avoid: Avoid direct sunlight and extremely high or low temperatures. Avoid all possible sources of ignition (spark or flame). Keep away from hot surfaces and avoid incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, acids, strong reducing agents, alkali metals, ammonia, metals, chromic acid, ethylene glycol, nitric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, carbonates, hydroxides, oxides, phosphates, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, and potassium dioxide.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, bromine, hydrogen bromide gas, formaldehyde, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#62-53-3 Aniline: RTECS#: BW6650000

LD50 Oral: 440 mg/kg (rat)

LD50 Dermal: 442 mg/kg (rat)

LC50 Inhalation: 1.82 mg/L 4h (rat)

Carcinogenicity: Aniline CAS#62-53-3 is not listed by NTP or OSHA. Aniline is listed by IARC (Group 2A, Probably Carcinogenic to Human), ACGIH (A3, Animal Carcinogen), and California Prop. 65 as a carcinogen.

CAS#17372-87-1 Eosin Y: RTECS#: LM5800000

LD50 Oral: >2000 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

Carcinogenicity: Eosin Y CAS#17372-87-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#64-19-7 Glacial Acetic Acid: RTECS#: AF1225000

LD50 Oral: 3310 mg/kg (rat)

LD50 Dermal: 1060 mg/kg (rabbit)

LC50 Inhalation: 11.4 mg/L 4h (rat)

Investigated as a mutagen, and reproductive effector.

Skin corrosion/irritation: skin (rabbit), causes severe burns.

Serious eye damage/eye irritation: eyes (rabbit), corrosive to eyes, causes serious eye damage.

Carcinogenicity: Glacial Acetic Acid CAS#64-19-7 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#64-17-5 Ethyl Alcohol: RTECS#: KQ6300000

LD50 Oral: 10470 mg/kg (rat)

LD50 Dermal: Not available

LC50 Inhalation: 124.7 mg/L 4h (rat)

Draize test, rabbit, eye: 500 mg/24h Mild Irritant

Skin: Repeated exposure may cause skin dryness or cracking.

Ethyl Alcohol overexposure may lead to headache, dizziness, tiredness, nausea and vomiting.

Carcinogenicity: Ethyl Alcohol CAS#64-17-5 is not listed by OSHA. Ethyl Alcohol is listed by IARC (Group 1, Carcinogenic to Humans), NTP (Known Carcinogen), and ACGIH (A3, Animal Carcinogen). Ethyl Alcohol is listed by California Prop. 65 as a developmental carcinogen (alcoholic beverages only).

CAS#67-56-1 Methyl Alcohol: RTECS#: PC1400000

LD50 Oral: 100.1 mg/kg (expert judgement)

LD50 Dermal: 300.1 mg/kg (expert judgement)

LC50 Inhalation: 3.1 mg/L 4h (expert judgement)

May cause skin and eye irritation.

Methyl Alcohol may cause blindness: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Carcinogenicity: Methyl Alcohol CAS#67-56-1 is not listed by IARC, NTP, ACGIH, or OSHA. Methyl Alcohol is listed by California Prop. 65 as a developmental carcinogen.

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

Epidemiology: Not available.

Teratogenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Suspected of causing genetic defects.

Specific Organ Toxicity, Single Exposure: Respiratory system, central nervous system, and optic nerve.

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

Symptoms associated with exposure: Prolonged or repeated exposure can defat the skin and lead to irritation, cracking, and/or dermatitis. Eye contact may result in corneal damage, blindness, pain, irritation, watering, redness, blurred or double vision. Causes damage to organs if in contact with skin, if inhaled or if swallowed. Overexposure may cause headache, dizziness, tiredness, nausea, vomiting, confusion, weakness. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands/feet, dizziness, lightheadedness, chest pain, muscle pain. May cause stomach irregularities. Suspected of causing cancer. Suspected of causing genetic defects.

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

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Toxic to aquatic life with long lasting effects. May cause long-term adverse effects to the environment.

CAS#62-53-3 Aniline:

LC50, freshwater fish: 10.6 mg/L 96h flow-through (*oncorhynchus mykiss*)(rainbow trout)
EC50, water flea: 0.16 mg/L 48h semi-static (*daphnia magna*)
EC50, algae: 175 mg/L 72h static (*chlorella pyrenoidosa*)
EC50, microtox: 425 mg/L 5min
EC50, microtox: 488 mg/L 15min

CAS#17372-87-1 Eosin Y:

LC50, freshwater fish: 1200 mg/L 48h (*oryzias latipes*)(orange-red killifish)
EC50, water flea: >100 mg/L 48h static (*daphnia magna*)
ErC50, algae: 51.3 mg/L 72h static (*desmodesmus subspicatus*)(green algae)

CAS#64-19-7 Glacial Acetic Acid:

LC50, freshwater fish: 88 mg/L 96h (*pimephales promelas*)(fathead minnow)
LC50, freshwater fish: 75 mg/L 96h (*lepomis macrochirus*)(bluegill)
EC50, water flea: 95 mg/L 24h
EC50, microtox: 8.8 mg/L 5min (*photobacterium phosphoreum*)

CAS#64-17-5 Ethyl Alcohol:

EC50, freshwater algae: 275 mg/L 72h (*chlorella vulgaris*)
LC50, freshwater fish: 14200 mg/L 96h (*pimephales promelas*)(fathead minnow)
EC50, water flea: 9268 mg/L 48h
EC50, water flea: 10800 mg/L 24h
EC50, microtox: 34634 mg/L 30min (*photobacterium phosphoreum*)
EC50, microtox: 35470 mg/L 5min (*photobacterium phosphoreum*)

CAS#67-56-1 Methyl Alcohol:

LC50, freshwater fish: >10000 mg/L 96h (*pimephales promelas*)(fathead minnow)
EC50, water flea: >10000 mg/L 24h
EC50, algae: 22000 mg/L 96h static (*pseudokirchneriella subcapitata*)(green algae)
IC50, bacteria: >1000 mg/L 3h static (activated sludge)
EC50, microtox: 39000 mg/L 25min
EC50, microtox: 40000 mg/L 15min
EC50, microtox: 43000 mg/L 5min

Persistence and degradability: May persist in the environment.

Bio-accumulative potential: Not available.

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

Section 13 - Disposal Considerations

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

Section 14 – Transport Information

DOT

Proper shipping name: Toxic liquids, flammable, organic, n.o.s. (Aniline, SD Alcohol)
UN2929
PG II
Hazard class 6.1 (3)

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: 2/2/12

Revision #1. 10/2/14 YM

Revision #2. 3/8/17 RC

Revision #3. 4/26/18

Revision #4. 8-5-19

Revision #5. 4-17-23

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