

69 Santa Felicia Drive, Santa Barbara, CA 93117, USA

Hematoxylin Counterstainer Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product: **Hematoxylin Automation**
 Catalog Numbers:

Catalog #	Presentation	Volume
BSB 0024	Ready-To-Use	15 ml
BSB 0025	Ready-To-Use	50 ml
BSB 0026	Ready-To-Use	100 ml
BSB 0027	Ready-To-Use	200 ml
BSB 0028	Ready-To-Use	1000 ml

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Biological stain. Immunohistochemistry (IHC) ancillary reagent.
 Not intended for use in humans or animals.

1.3 Details of the supplier of the safety data sheet

Manufacturer: Bio SB, Inc.
 Street Address: 69 Santa Felicia Dr.
 City, State, Zip, Country: Santa Barbara, CA 93117, USA
 Technical Phone: +1-805-692 2768
 Fax: +1-805-692 2769
 E-mail: sales@biosb.com

1.4 Emergency telephone number

Telephone number: +1-805-692 2768 (9 AM - 5 PM PST, M-F)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the pure substance or mixture

Classification (EC 1272/2008)

According to Regulation (EC) No.1272/2008 this mixture is classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients.

Physical:	Health:	Environmental
Not Hazardous	Skin Irritant Category 3 Eye Irritant Category 2A	Not Hazardous

2.2 GHS Label elements, including precautionary statements

GHS Label: Contains Acetic acid.

Hazard Pictograms: GHS08



Signal Word: Danger

Hazard Statements:

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H316 Skin irritation (Category 2)
H319 Eye irritation (Category 2A)

Causes mild skin irritation
Causes serious eye irritation.

Precautionary statement(s)

P264	Wash thoroughly after handling
P280	Wear protective gloves, protective clothing and eye protection
P332+ P313	IF skin irritation occurs: Get medical advice/attention
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+ P313	IF eye irritation persists: Get medical advice/attention.

2.3 Other information

Hazards not otherwise classified (HNOC) or not covered by GHS - None known

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical Description: Mixture

Chemical Name	% Conc.	CAS#	EC#	Classification
Ethylene Glycol	≤ 30	107-21-1	200-289-5	Acute Toxicity Category 4 (H302)
Acetic Acid	≤ 2	200-580-7	200-580-7	Warning. 3, H226 Flammable liquid and vapour. Danger. 1A H314 Causes severe skin burns and 1 H318 eye damage.
Aluminum sulfate	≤ 2	233-135-0	233-135-0	Warning. 2A H319 Eye irritation H402 Aquatic Acute Category 3 H412 Aquatic chronic Category 3

The Full Text for all Hazard Statements are displayed in Section 16. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and do not require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: In case of inhalation of spray move person into fresh air and keep at rest. Get medical attention if any discomfort continues. If breathing stops, provide artificial respiration. Get medical attention immediately!

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Ingestion:	Immediately rinse mouth and drink plenty of water (200-300 ml). DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.
Skin contact:	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Obtain medical attention, continue rinsing eyes during transport to hospital and bring these instructions.
Self-protection of the first aider:	Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	May cause coughing or mild irritation.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

The most important known symptoms and effects are described in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

If seeking medical attention show Safety Data Sheet to physician. Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Fire can be extinguished using: Water spray, alcohol resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Specific hazards: If heated and in case of fire, irritating vapors may be formed, Carbon Oxides, Hydrogen chloride (HCl) gas, nitrogen oxides (NO_x).

5.3. Advice for firefighters

Protective equipment for fire-fighters: Self-contained NIOSH/MSHA (approved or equivalent) breathing apparatus and full protective chemical resistant clothing, gloves, and eye protection must be worn. In case of fire use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wear protective clothing as described in Section 8 of this safety data sheet.

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6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation. Absorb spillage with suitable inert absorbent material. Collect spillage in suitable waste containers, seal securely and deliver for disposal according to local regulations. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Avoid inhalation of vapors/spray and contact with skin and eyes. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Store at 15-30°C. Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2, no other uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

Chemical Name	US OEL	EU IOEL	UK OEL	Germany OEL
Ethylene Glycol	100 ppm TWA ACGIH TLV	10 ppm TWA (particulate) 20 ppm TWA (vapor)	20 ppm TWA 40 ppm STEL	10 ppm TWA 20 ppm STEL
Acetic Acid	10 ppm TWA OSHA PEL 10 ppm TWA, 15 ppm STEL ACGIH TLV	10 ppm TWA	10 ppm TWA 15 ppm STEL	10 ppm TWA 20 ppm STEL
Aluminum sulfate	None Established	None Established	2 mg/m ³ TWA (as Al)	None Established

Refer to local or national authority for exposure limits not listed above.

Chemical Name	Biological Limit Value
Ethylene Glycol	None
Acetic Acid	None
Aluminum sulfate	None

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8.2. Exposure controls

Recommended Monitoring Procedure Ethylene glycol: Collection on glass fiber filter and XAD tubes with analysis by gas chromatography. Aluminum: collection on filters with analysis by atomic emission spectrophotometry or ICP. Acetic Acid: Collection on charcoal tubes with analysis by gas chromatography.

Protective equipment:	Protective gloves, protective clothing, and safety glasses
Process conditions:	Provide eyewash station.
Engineering measures:	Handle in accordance with good industrial hygiene and safety practice. Observe occupational exposure limits and minimize the risk of inhalation of spray.
Respiratory equipment:	No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.
Hand protection:	Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves' supplier, who can inform about the breakthrough time of the glove material. Nitrile gloves are recommended but be aware that the liquid may penetrate the gloves. Not suitable for permanent contact. Frequent change is advisable. Latex or Nitrile gloves; thickness 0.11 mm, ASTM F1671, DIN EN 374 or equivalent; AQL 1.5.
Eye protection:	If risk of splashing wear safety goggles or face shield. DIN 166 or equivalent.
Other Protection: Hygiene measures:	Wear appropriate clothing to prevent any possibility of skin contact. DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Skin protection:	Wear apron or protective clothing in case of contact. Wash contaminated clothing before reuse.
Control of Environmental Exposure:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Color:	Deep cherry red
Odor:	mild vinegar odor
Threshold:	0.48 ppm (Acetic Acid)
pH Value:	2.4 — 3.0
Initial boiling point and boiling range:	No data available
Melting/ freezing point (°C):	16t (-70F)
Flash Point:	>100CC (212F)
Evaporation rate	same as water
Flammability Limit –(solid/gas):	Not determined
Lower Flammability Limit (%):	3.2% (ethylene glycol)

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Human Skin Model Test:	No relevant data available
Serious eye damage/irritation:	Irritating to eyes
Respiratory sensitization:	No relevant data available
Skin sensitization:	No relevant data available
Germ cell mutagenicity (InVitro):	No relevant data available
Carcinogenicity:	None of the components of this product are listed as carcinogens by OSHA, ACGIH, IARC, NTP, or the EU Dangerous Substances Directive.
Reproductive Toxicity – Fertility:	No relevant data available
Specific target organ toxicity - single exposure:	
STOT - Single exposure:	Ingestion of ethylene glycol have been shown to cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, malaise, blurring of vision, irritability, back pain, decrease in urine output, kidney failure, and central nervous system effects, including irregular eye movements, convulsions and coma.
Specific target organ toxicity - repeated exposure:	
STOT - Repeated exposure:	Prolonged overexposure to ethylene glycol has been shown to cause kidney and liver damage in mice and rats. In rats 5% aluminum sulfate in diet decrease inorganic phosphorus in serum and phosphorus in femoral bone. Aluminum sulfate has also demonstrated neurotoxicity in animal studies.
Aspiration hazard:	
Viscosity:	Not determined
Inhalation:	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
Ingestion;	Harmful if swallowed.
Skin contact:	Liquid may irritate skin. Not a skin sensitizer.
Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
Health Warnings:	No relevant information available for these concentrations
Route of entry:	Ingestion, skin and/or eye contact.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: There are no data on the ecotoxicity of this product.

12.1. Toxicity

Acute Toxicity – Fish	Not determined.
Crustacea:	No relevant studies identified.
Algae/Aquatic Plants:	No relevant studies identified.
Other Organisms:	Acetic Acid: LD50 Oral, Rat, 3310 mg/kg. LD50 Dermal, Rabbit, 1060 mg/kg

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12.2. Persistence and degradability

Degradability: No data available on the degradability of this product. This product is expected to be not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation. The product does not contain any substances expected to be bioaccumulating.

Partition coefficient: Not determined.

12.4. Mobility in soil

Mobility: Miscible in water. May spread in water systems. This component is non-volatile.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances assessed to be a PBT or vPvB.

12.6. Other adverse effects

Not determined.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

General information:

Sewage disposal is discouraged, waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Waste Disposal Methods: Dispose of waste and residues in accordance with local authority requirements.

Product/Packaging Disposal: Decisions on the appropriate waste management method must be in line with local, regional and national regulations.

SECTION 14: TRANSPORTATION INFORMATION

General: Not dangerous goods. The product is not covered by international regulation on the transport of dangerous goods [IMDG, IATA, ADR/RID, DOT (US)].

Road Transport Notes: Not Classified.

Rail Transport Notes: Not classified.

Sea Transport Notes: Not classified.

Air Transport Notes: Not classified.

14.1. UN number

ADR ADN, DOT, IMDG, IATA Not dangerous goods.

14.2. UN proper shipping name

ADR ADN, DOT, IMDG, IATA Not dangerous goods.

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14.3. Transport hazard class(es)

ADR ADN, DOT, IMDG, IATA Class(es)

Not dangerous goods.

14.4. Packing group

ADR ADN, DOT, IMDG, IATA

Not dangerous goods.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant:

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Transport/Additional information: This product is not intended to be transported in bulk as defined in Annex II of MARPOL73/78 and the IBC Code.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Approved Code of Practice: Classification and Labeling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.
Guidance Notes: Workplace Exposure Limits EH40.

EU Legislation:

Regulation (EU) No 453/2010 of 20 May 2010 Annex II and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and amending Regulation (EC) No 1907/2006 with amendments.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

SARA 302 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimus) reporting levels established by SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimus) reporting levels established by SARA Title III, Section 313.

Extremely hazardous Substances; Section 355

None of the components in the mixture are listed.

Toxic substances control Act; TSCA

All of the components in this mixture are listed.

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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Right To Know Components

Right To Know Components Acetic Acid: California; Massachusetts; Minnesota; New Jersey
Pennsylvania; Rhode Island

Right To Know Components Glycerin: Illinois; Massachusetts; Minnesota; Pennsylvania;
Rhode Island

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out by Bio SB.

SECTION 16: OTHER INFORMATION

Abbreviations and Acronyms:

OSHA (USA)	Occupational Safety and Health Administration
NFPA	National Fire Protection Association
H.M.I.S (USA)	Hazardous Material Identification System
SARA	Superfund Amendments and Reauthorization Act
IMDG	International Maritime Organization
IATA	International Air Transportation Association
ADR/RID	European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR)
DOT (US)].	U.S Department of Transportation
GHS:	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
DNEL:	Derived No-Effect Level (REACH)
PNEC:	Predicted No-Effect Concentration (REACH)
PBT:	Persistent, Bioaccumulative and Toxic
SVHC:	Substances of Very High Concern
vPvB:	very Persistent and very Bioaccumulative

Hazard Statements In Full for H code(s) and R Phrase(s) mentioned in section 3.

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long-lasting effects.

R36 Irritating to eyes.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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General information: Only trained personnel should use this material.
SDS No.: 0018 Revision A
Date: 04/19/2019

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy him or herself as to the suitability of such information for their own particular use.

Bio SB shall not be held responsible for any damage resulting from the use of the above product or the information contained in this safety data sheet.

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