

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: Acid Wash•Histo™	Code: 3815
Supplier: BBC Biochemical	MSDS#: 3815
Synonym: None	Validation Date: 2-19-09
Trade Name:	Print Date: 2-19-09
Material Uses:	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

Section 2. Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits
1) Water	1737-87-1	Percentage composition	
2) Selected Buffers	N/A	withheld as trade secret.	

Section 3. Hazards Identification

Physical State and Appearance	Clear aqueous solution.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	May cause irritation with redness and pain.
Skin	May cause irritation with redness and pain.
Inhalation	May cause irritation of the mucous membranes with sore throat and coughing.
Ingestion	Irritant to the gastrointestinal system.
Potential Chronic Health Effects	
Medical Conditions	N/A
Aggravated by Overexposure	
Overexposure/Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air, give artificial respiration if breathing has stopped.
Ingestion	Get immediate medical attention; if conscious, give water freely. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not available.

Fire Fighting Media and Instructions Wear self-contained breathing apparatus.

Protective Clothing (Fire)

Special Remarks on Fire Hazards No unusual fire and/or explosion hazards indicated.

Special Remarks on Explosion Hazards

Section 6. Accidental Release Measures

Small Spill and Leak Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section VIII. Contain the release and eliminate its source, if this can be done without risk. Take up and containerize for proper disposal as described under Waste Disposal Method. Comply with Federal, State, and Local regulations on reporting releases.

Large Spill and Leak Same as above.

Section 7, Handling and Storage

Handling Avoid prolonged, or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

Storage Keep container closed.

Section 8. Exposure Controls / Personal Protection

Engineering Controls

Personal Protection

Eyes Safety glasses with side shields should be worn at all times.

Body Impervious protective clothing should be worn to prevent skin contact.

Respiratory A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hands Protective gloves, rubber or equivalent, should be worn to prevent skin contact.

Feet Impervious shoes should be worn to prevent skin contact.

Personal Protection in

Case of a Large Spill Safety glasses with side shields, impervious clothing and footwear, protective gloves, respirator if necessary.

Product Name **Exposure Limits**

- 1)
- 2)
- 3)

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance Colorless liquid.

Odor: Odorless.

Molecular Weight Not applicable.

Taste: Not available.

Molecular Formula Not applicable.

Color: Colorless.

pH (1%/Water) Not applicable.

Boiling/Condensation Point 100 C.

Melting/Freezing Point Not applicable.

Critical Temperature Not applicable.

Specific Gravity Not determined.

Vapor Pressure Not determined.

Vapor Density Not determined.

Volatility 100% volatile.

Odor Threshold Not applicable.

Evaporation Rate Not determined.

VOC Not available.

Viscosity Not available.

Ionicity (in water) Not available.

Dispersion Properties Not available.

Solubility Soluble in water.

Physical Chemical Not available.

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	0		
	Reactivity	0		
	Personal Protection			

References

Other Special Considerations

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Blueing Solution Histo	Code:	3900
Supplier:	BBC Biochemical	MSDS#:	3900
Synonym:	None	Validation Date:	2-19-09
Trade Name:	Blueing Solution Histo	Print Date:	2-19-09
Material Uses:	Stains	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits
1) Water	7732-18-5	balance	Not established.
2) 1% Lithium Carbonate	554-13-2	1%	Data not available.

Section 3. Hazards Identification

Physical State and Appearance	Colorless liquid, sharp pungent odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	May cause irritation with redness, pain, and possibly corneal damage.
Skin	May cause irritation with redness and pain.
Inhalation	May cause irritation of the mucous membranes with sore throat and coughing.
Ingestion	Irritant to the gastrointestinal system.
Potential Chronic Health Effects	
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Corneal disease, glaucoma, or chronic respiratory diseases.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes thoroughly with water for at least 15 minutes.
Skin Contact	Wash thoroughly with water.
Inhalation	Remove to fresh air, give artificial respiration if breathing has stopped.
Ingestion	Get immediate medical attention; if conscious, give water freely. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	None indicated.
Explosion Hazards in Presence of Various Substances	None indicated.

Fire Fighting Media and Instructions Wear self-contained breathing apparatus.

Protective Clothing (Fire)

Special Remarks on Fire Hazards

Special Remarks on Explosion Hazards

Section 6. Accidental Release Measures

Small Spill and Leak Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section VIII. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate it's source, if this can be done without risk. Take up and containerize for proper disposal as described under Waste Disposal Method. Comply with Federal, State, and local regulations on reporting releases.

Large Spill and Leak Same as above.

Section 7, Handling and Storage

Handling Avoid prolonged, or repeated skin contact. Do not get in eyes. Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be available.

Storage Keep container closed.

Section 8. Exposure Controls / Personal Protection

Engineering Controls

Personal Protection

Eyes Safety glasses with side shields should be worn at all times.

Body Impervious clothing should be worn to prevent skin contact.

Respiratory Any dust or mist respirator. If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MSHA approved air respirator is advised in absence of proper environmental control. Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Hands Rubber or equivalent gloves should be worn to prevent skin contact.

Feet Data not available.

Personal Protection in

Case of a Large Spill Impervious clothing, rubber or equivalent gloves, safety glasses with side shields and respirator.

Product Name **Exposure Limits**

1) Data not available.

2)

3)

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Colorless liquid.	Odor:	Pungent.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Colorless.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	100C.		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	Not applicable.		
Vapor Pressure	Not applicable.		
Vapor Density	Not applicable.		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	Not applicable.		
VOC	Not available.		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Soluble in water.		
Physical Chemical Comments	Not available.		

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	None.
Incompatibility with Various Substances	Acids, corrosive to metals and alloys.
Hazardous Decomposition Products	Corrosive vapors of ammonia and toxic oxides or nitrogen.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

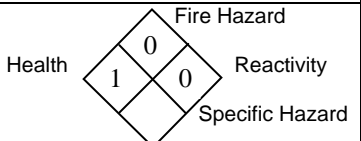
Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities. Always contact a permitted waste disposer (TSD) to assure compliance with all current local, state and federal regulations.	

Section 14. Transport Information

DOT Classification	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements				
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	0		
	Reactivity	0		
	Personal Protection			

References

**Other Special
Considerations**

Notice to Reader

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BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Harris Hematoxylin	Code:	3550
Supplier:	BBC Biochemical	MSDS#:	3550, 3530
Synonym:	Harris Hematoxylin w/o Mercuric Chloride	Validation Date:	4-17-09
Trade Name:	Not available.	Print Date:	4-17-09
Material Uses:	Not available.	Responsible Name:	Dr. B
Manufacturer:	BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477	

Section 2. Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits
1) Water	7732-18-5	Not available.	Not available.
2) Hematoxylin	517-28-2	Not available.	Not available.
3) Aluminum Ammonium Sulfate	7784-26-1	Not available.	Not available.
4) Ethylene Glycol	107-21-1	Not available.	Not available.
5) Glacial Acetic Acid	64-19-7	Not available.	Not available.
6) Dimethyl Sulfoxide	67-68-5	Not available.	Not available.
7) Propylene Glycol	57-55-6	Not available.	Not available.

Section 3. Hazards Identification

Physical State and Appearance	Deep purple liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, skin contact.
Potential Acute Health Effects	
Eyes	Irritation, may cause permanent damage.
Skin	Irritation.
Inhalation	Irritation to nose, throat, mucous membranes, and respiratory system.
Ingestion	May be harmful if swallowed.
Potential Chronic Health Effects	Not available.
Medical Conditions Aggravated by Overexposure/Signs/Symptoms	Not available.

Section 4. First Aid Measures

Eye Contact	Immediately flush with water for at least 15 minutes.
Skin Contact	Wash thoroughly with water.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, give water freely, get immediate medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.

Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not available.
Fire Fighting Media and Instructions	Dry chemical, carbon dioxide, "Alcohol" foam; water spray to cool fire-exposed and disperse vapors.
Protective Clothing (Fire)	Wear self-contained breathing apparatus and protective clothing.
Special Remarks on Fire Hazards	Thermal decomposition produces toxic fumes.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section 8. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate it's source, if this can be done without risk. Take up and containerize for proper disposal as described under Waste Disposal Method. Comply with Federal, State, and local regulations on reporting releases.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Do not breath vapor or mist. Do not get in eyes, on skin, or on clothing.
Storage	Keep container tightly closed. Store away from heat, sparks, open flame.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with side shields must be worn at all times.
Body	Impervious protective clothing must be worn to prevent skin contact.
Respiratory	If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. Engineering and/or administrative controls should be implemented to reduce exposure.
Hands	Protective gloves: Neoprene, Nitrile or equivalent.
Feet	Not available.
Personal Protection in Case of a Large Spill	Same section 6.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Deep Purple Liquid.	Odor:	Not available.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Deep purple.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	Not applicable.		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	Not applicable.		
Vapor Pressure	Not applicable.		
Vapor Density	Not applicable.		
Volatility	Not applicable.		
Odor Threshold	Not applicable.		
Evaporation Rate	Not applicable.		
VOC	Not available.		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Soluble in water.		
Physical Chemical	Not available.		

Comments

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

Toxicity to Animals	Ethylene Glycol orl-rat LD50: 4700mg/kg Glacial Acetic Acid orl-rat LD50: 3530 mg/kg Hematoxylin LD50: 400 mg/kg
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate some material may produce adverse mutagenic and reproductive effects. Some material may cause tumors.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	1	
	Reactivity	1	

Personal Protection

References

**Other Special
Considerations**

Notice to Reader

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BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: S-2 Histo™	Code: 4311
Supplier: BBC Biochemical	MSDS#: 4311
Synonym: None	Validation Date: 3-6-09
Trade Name: None	Print Date: 3-6-09
Material Uses:	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL	OSHA STEL
1) Isopropyl Alcohol	67-63-0	400 ppm	500 ppm
2) Ethyl Alcohol	64-17-5	1000 ppm	None established
3) Methyl Alcohol	67-56-1	200 ppm	250 ppm
4) Methyl Iso-Butyl Ketone	108-10-1	50 ppm	75 ppm

Section 3. Hazards Identification

Physical State and Appearance	Transparent, colorless liquid with an alcoholic odor.
Emergency Overview	Not available.
Routes of Entry	Inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	400-800 ppm may cause irritation.
Skin	May cause slight irritation.
Inhalation	400-800 ppm may cause mild to uncomfortable irritation.
Ingestion	May cause abdominal pain and vomiting; Central nervous system depression.
Potential Chronic Health Effects	
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	N/A

Section 4. First Aid Measures

Eye Contact	Flush for 15-20 minutes with large amounts of water or normal saline until no evidence of chemical remains..
Skin Contact	Remove contaminated clothing and shoes immediately. Wash with copious amounts of water for at least 15-20 minutes.
Inhalation	Remove to fresh air immediately. Get medical attention immediately..
Ingestion	Give activated charcoal. Do not attempt emesis if respiration is depressed. Get medical attention immediately.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable Liquid.
Auto-ignition Temperature	Not available.
Flash Points	52 F.
Flammable Limits	Not available.
Products of Combustion	Not available.

Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not available.
Fire Fighting Media and Instructions	"Alcohol" foam, CO ₂ Dry chemical. Wear self-contained breathing apparatus and protective clothing.
Protective Clothing (Fire)	
Special Remarks on Fire Hazards	Fire hazard when exposed to heat.
Special Remarks on Explosion Hazards	Explosion hazard when exposed to heat.

Section 6. Accidental Release Measures

Small Spill and Leak	Remove sources of heat or ignition, or when feasible, remove leaking container. Provide ventilation. Contain spill (dilution of spill with water to raise flashpoint may be desirable.) Pick up liquid for recovery or disposal when feasible. Absorb small spills and residue with suitable material and containerize for proper disposal as described under Waste Disposal Method below. Material must be disposed of in accordance with all federal, state, and local regulations.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Do not breathe vapor. Electrically ground all equipment when handling this product.
Storage	Keep container tightly closed. Store away from incompatible substances. Store away from heat, sparks, open flame, oxidizers.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety goggles with side shields must be worn at all times.
Body	Impervious clothing must be worn at all times.
Respiratory	If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety supplier). Engineering and/or administrative controls should be implemented to reduce exposure. Material must be handled or transferred in an approved fume hood or with adequate ventilation.
Hands	Appropriate protective gloves must be worn to prevent contact with this substance.
Feet	Impervious footwear must be worn at all times.
Personal Protection in Case of a Large Spill	
Product Name	Exposure Limits
1)Ethyl Alcohol	OSHA PEL 1000ppm TWA
2)Isopropyl Alcohol	OSHA PEL 400ppm TWA
3)Methyl Alcohol	OSHA PEL 200ppm TWA
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Transparent, colorless liquid with an alcoholic odor.	Odor:	Not available.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Not available.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	170-180 F.		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	~0.8.		
Vapor Pressure	40-50 mmHg @ 66 F.		
Vapor Density	~2.0.		
Volatility	100% volatile.		
Odor Threshold	Not applicable.		
Evaporation Rate	~2.5.		
VOC	Not available.		
Viscosity	Not available.		
Ionicity (in water)	Not available.		

Dispersion Properties	Not available.
Solubility	Soluble in water.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	Stable under normal Temperatures and Pressures. May oxidize under normal storage conditions.
Conditions of Instability	Heat.
Incompatibility with Various Substances	Strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition products may include toxic oxides of carbon.
Hazardous Polymerization	Has not been reported to occur under normal temperatures and pressures.

Section 11. Toxicological Information

Toxicity to Animals	Inhalation: Ethyl Alcohol LC ₅₀ : (rat) 20000ppm/10h Methyl Alcohol LC ₀ : (human) 86000mg/m ³ Isopropyl Alcohol LCL ₀ : (rat) 16000 ppm/8h Methyl Iso-Butyl Ketone LCL ₀ : (rat) 4000 ppm/15 min. Oral: Ethyl Alcohol TDL ₀ : (human) 50 mg/kg LD ₅₀ : (rat) 7.060 mg/kg Methyl Alcohol LDL ₀ : (human) 340 mg/kg Methyl Iso-Butyl Ketone LD ₅₀ : (rat) 2080 mg/kg Isopropyl Alcohol LDL ₀ : (human) 8600 mg/kg Dermal: Ethyl Alcohol LDL ₀ : (rabbit) 20 g/kg Methyl Alcohol LDL ₀ : (monkey) 500 mg/kg
Chronic Effects on Humans	Ethyl Alcohol may cause severe skin irritation on prolonged contact.
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

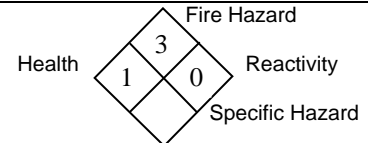
Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II
Marine Pollutant	Not available.
Hazardous Substances	Not available.

Reportable Quantity**Special Provisions for Transport** Not applicable.**TDG Classification** UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II**ADR/RID Classification** ADR (Europe) Information not available.**IMO/IMDG Classification** IMDG Information not available.**ICAO/IATA Classification** See IATA Regulations, UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II**Section 15. Other Information****Label requirements****Hazardous Material Information System (U.S.A.)**

Health	1
Fire Hazard	3
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)**References****Other Special Considerations****Notice to Reader**

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BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: Special Eosin™ II	Code: 3730
Supplier: BBC Biochemical	MSDS#: 3730, 3740, 3750
Synonym: None	Validation Date: 4-17-09
Trade Name: Special Eosin™ II	Print Date: 4-17-09
Material Uses: Stain	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

Section 2. Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits
1) Water	1737-87-1	Percentage composition is withheld as a trade secret.	Data not available. OSHA PEL 1000 ppm TWA.
2) Denatured Ethanol Mixture			
•Ethyl Alcohol	64-17-5		
•Methyl Alcohol	67-56-1		
•Isopropyl Alcohol	67-63-0		
3) Eosin Y	17372-87-1		Data not available.
4) Glacial Acetic Acid	64-19-7		OSHA PEL 10ppm TWA

Section 3. Hazards Identification

Physical State and Appearance	Fluorescent orange liquid, characteristic odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	Irritation.
Skin	Irritation.
Inhalation	May cause dizziness, headache, nausea, and narcosis.
Ingestion	May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
Potential Chronic Health Effects	
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Kidney, liver, heart, and GI conditions.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash thoroughly with water.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting. Seek medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	About 55 Degrees F.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence	Heat.

Of Various Substances

Explosion Hazards in Presence of Various Substances Vapor can travel distances to ignitions source and flash back.

Fire Fighting Media and Instructions Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors. Fire fighters should use self-contained breathing apparatus and protective clothing.

Protective Clothing (Fire)**Special Remarks on Fire Hazards****Special Remarks on Explosion Hazards****Section 6. Accidental Release Measures**

Small Spill and Leak Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Large Spill and Leak Same as above.

Section 7, Handling and Storage

Handling Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.

Storage Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection**Engineering Controls****Personal Protection**

Eyes Safety glasses with approved side shields should be worn at all times. Eyewash and safety shower should be available.

Body Protective clothing to minimize skin contact.

Respiratory Use NIOSH or MSHA approved respirators in absence of proper environmental control. Approved fume hood or other approved ventilation.

Hands Neoprene, Nitrile or equivalent gloves.

Feet Data not available.

Personal Protection in Case of a Large Spill Safety glasses with side shields, protective clothing, respirator if necessary, neoprene, nitrile or equivalent gloves.

Product Name**Exposure Limits**

- | | |
|------------------------------|----------------------|
| 1) Water | Data not available. |
| 2) Denatured Ethanol Mixture | OSHA PEL 1000ppm TWA |
| 3) Glacial Acetic Acid | OSHA PEL 10ppm TWA |

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Fluorescent orange liquid, characteristic odor.	Odor:	Characteristic odor.
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Molecular Weight	Not applicable.	Taste:	Not available.
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Molecular Formula	Not applicable.	Color:	Fluorescent orange.
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pH (1%/Water)	Not applicable.
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Boiling/Condensation Point	173 Degrees F.
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Melting/Freezing Point	Not applicable.
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Critical Temperature	Not applicable.
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Specific Gravity	Not applicable.
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Vapor Pressure	Not applicable.
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Vapor Density	Not applicable.
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Volatility	Not applicable.
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Odor Threshold	Not applicable.
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Evaporation Rate	Not applicable.
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VOC	Not available.
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Viscosity	Not available.
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Ionicity (in water)	Not available.
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Dispersion Properties	Not available.
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Solubility	Complete in water.
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Physical Chemical Comments	Not available.
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Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
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Conditions of Instability	Heat.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	Bromine compounds, Co _x , Na ₂ O, strong oxidizing agent, such as nitrates, perchlorates, peroxides, chromic, nitric and sulfuric acid..
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate Eosin Y may produce adverse mutagenic effects and cause tumors. Cited in Registry of Toxic Effects of Substances (RTECS).
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Disposal by Incineration or fuel blending. Contact your local licensed waste disposal company. Follow Federal, State, and local regulations.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Flammable, Ethanol Solution, UN1170, 3, III
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Flammable, Ethanol Solution, UN1170, 3, III
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA Regulations, Flammable, Ethanol Solution, UN1170, 3, III

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	2	National Fire Protection Association (U.S.A.)
	Fire Hazard	3	
	Reactivity	1	
	Personal Protection		
References			
Other Special Considerations			

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