

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision Date: 05/30/2014

Version: 1.0

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier	
Product Form: Mixture	è

Product Name: Gill 3 Hematoxylin Product Code: RS4021-A, RS4021-B

#### **Intended Use of the Product**

Use of the Substance/Mixture: Biological Stains. For professional use only.

#### Name, Address, and Telephone of the Responsible Party

#### Company

Avantik 19 Chapin Road - Building C Pine Brook, NJ 07058 (800) 783-9424 www.avantik-us.com

#### **Emergency Telephone Number**

Emergency Number : CHEMTREC 800-424-9300 (USA & Canada) CHEMTREC 703-527-3887 (International)

Non-Transport : 888-392-8411

## SECTION 2: HAZARDS IDENTIFICATION

SECTION 2. HAZANDS IDENTITY	
<b>Classification of the Substance or</b>	Mixture
Classification (GHS-US)	
Flammable Liquid Not classified	
Acute Toxicity 4 (Oral)	H302
Skin Irritation 2	H315
Eye Damage 1	H318
Specific Target Organ Toxicity Repeate	ed Exposure 2 H373
Label Elements	
GHS-US Labeling	
Hazard Pictograms (GHS-US)	HS05 GHS07 GHS08
Signal Word (GHS-US)	: Danger
Hazard Statements (GHS-US)	: H302 - Harmful if swallowed
	H315 - Causes skin irritation
	H318 - Causes serious eye damage
	H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary Statements (GHS-US)	: P260 - Do not breathe mist, spray, vapors.
	P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
	P270 - Do no eat, drink or smoke when using this product.
	P280 - Wear eye protection, protective clothing, protective gloves.

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P301+P312 -	· IF SWALLO	WED: Call a PO	ISON CENTER or	doctor/physician	if you feel unwell.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove

- contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor.
  - P314 Get medical advice and attention if you feel unwell.
  - P321 Specific treatment (see section 4).
  - P330 If swallowed, rinse mouth.
  - P332+P313 If skin irritation occurs: Get medical advice/attention.



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P362 - Take off contaminated clothing.

P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

#### Other Hazards Not available

Unknown Acute Toxicity (GHS-US) Not available

#### SECTION 3: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

|--|

Name	Product identifier	% (w/w)	Classification (GHS-US)
Ethylene glycol	(CAS No) 107-21-1	26	Acute Toxicity 4 (Oral), H302
			Eye Irritant 2B, H320
			Specific Target Organ Toxicity Repeated Exposure 2, H373
Acetic acid	(CAS No) 64-19-7	1.46	Flammable Liquid 3, H226
			Skin Corrosion 1A, H314
			Eye Damage 1, H318
			Aquatic Acute 3, H402

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### **Description of First Aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). **Inhalation:** When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a POISON CENTER/doctor/physician if you feel unwell.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

#### Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Harmful if swallowed. Causes skin irritation.

Inhalation: May cause respiratory irritation.

Skin Contact: Causes severe irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIREFIGHTING MEASURES

#### **Extinguishing Media**

Suitable Extinguishing Media: Powder, alcohol-resistant foam, water spray, carbon dioxide (CO<sub>2</sub>).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. **Reactivity:** May be mildly corrosive to some materials.

#### **Advice for Firefighters**

Precautionary Measures Fire: Exercise caution when fighting any chemical fire

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO<sub>2</sub>). Oxides of aluminum. Nitrogen oxides.

**Reference to Other Sections** Refer to section 9 for flammability properties.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing.



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#### For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

#### For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

#### **Environmental Precautions**

Prevent entry to sewers and public waters.

#### Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

**Reference to Other Sections** See heading 8, Exposure Controls and Personal Protection.

#### **SECTION 7: HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product.

#### **Conditions for Safe Storage, Including Any Incompatibilities**

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

**Specific End Use(s)** Biological Stains. For professional use only.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control Parameters**

Ethylene glycol (107-21-1)		
Mexico	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Alberta	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
British Columbia	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
British Columbia	OEL Ceiling (ppm)	50 ppm
British Columbia	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m³)	10 mg/m <sup>3</sup>
Manitoba	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
New Brunswick	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Newfoundland & Labrador	OEL Ceiling (mg/m³)	100 mg/m <sup>3</sup>
Nova Scotia	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Nunavut	OEL Ceiling (mg/m³)	127 mg/m <sup>3</sup>
Nunavut	OEL Ceiling (ppm)	50 ppm
Nunavut	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m³)	10 mg/m <sup>3</sup>
Northwest Territories	OEL Ceiling (mg/m <sup>3</sup> )	127 mg/m <sup>3</sup>
Northwest Territories	OEL Ceiling (ppm)	50 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	10 ppm
Ontario	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Prince Edward Island	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Québec	PLAFOND (mg/m³)	127 mg/m <sup>3</sup>
Québec	PLAFOND (ppm)	50 ppm
Saskatchewan	OEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Yukon	OEL STEL (mg/m <sup>3</sup> )	325 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	125 ppm



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Yukon	OEL TWA (mg/m³)	250 mg/m <sup>3</sup>
Yukon	OEL TWA (mg/m <sup>2</sup> ) OEL TWA (ppm)	100 ppm
		100 hhiii
Acetic acid (64-19-7)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	10 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	15 ppm
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	25 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	15 ppm
USA IDLH	US IDLH (ppm)	50 ppm
Alberta	OEL STEL (mg/m³)	37 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	15 ppm
Alberta	OEL TWA (mg/m³)	25 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	10 ppm
British Columbia	OEL STEL (ppm)	15 ppm
British Columbia	OEL TWA (ppm)	10 ppm
Manitoba	OEL STEL (ppm)	15 ppm
Manitoba	OEL TWA (ppm)	10 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	15 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
New Brunswick	OEL TWA (ppm)	10 ppm
Newfoundland & Labrador	OEL STEL (ppm)	15 ppm
Newfoundland & Labrador	OEL TWA (ppm)	10 ppm
Nova Scotia	OEL STEL (ppm)	15 ppm
Nova Scotia	OEL TWA (ppm)	10 ppm
Nunavut	OEL STEL (mg/m <sup>3</sup> )	39 mg/m <sup>3</sup>
Nunavut	OEL STEL (ppm)	15 ppm
Nunavut	OEL TWA (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup>
Nunavut	OEL TWA (ppm)	10 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	39 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (ppm)	15 ppm
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	10 ppm
Ontario	OEL STEL (ppm)	15 ppm
Ontario	OEL TWA (ppm)	10 ppm
Prince Edward Island	OEL STEL (ppm)	15 ppm
Prince Edward Island	OEL TWA (ppm)	10 ppm
Québec	VECD (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
Québec	VECD (ng/n)	15 ppm
Québec	VEMP (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
Québec	VEMP (ng/m )	10 ppm
Saskatchewan	OEL STEL (ppm)	15 ppm
Saskatchewan	OEL TWA (ppm)	10 ppm
Yukon	OEL STEL (mg/m³)	43 mg/m <sup>3</sup>



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Yukon	OEL STEL (ppm)	25 ppm
Yukon	OEL TWA (mg/m³)	25 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	10 ppm

#### **Exposure Controls**

**Appropriate Engineering Controls:** Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Safety glasses. Gloves. Protective clothing.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

**Respiratory Protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Other Information: When using, do not eat, drink or smoke.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES** 

Information on Basic Physical and Chemical Properties

Physical State	:	Liquid
Appearance	:	Dark Purple-Red
Odor	:	Weak vinegar
Odor Threshold	:	Not available
рН	:	2.05 - 2.25
Relative Evaporation Rate (butylacetate=1)	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available
Boiling Point	:	100 °C (212 °F)
Flash Point	:	Not available
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Relative Density	:	0.98-1.10 (water = 1)
Specific Gravity	:	0.98-1.10
Solubility	:	Soluble in water
Partition coefficient: n-octanol/water	:	Not available
Viscosity	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not available
Explosion Data – Sensitivity to Static Discharge	:	Not available



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## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** May be mildly corrosive to some materials.

**Chemical Stability:** The product is stable at normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides. Oxides of aluminum.

## SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects - Product

Acute Toxicity : Harmful if swallowed.

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation. (pH: 2 – 4)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: 2-4)

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Causes severe irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Harmful if swallowed.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

#### Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Ethylene glycol (107-21-1)	
LD50 Oral Rat	4000 mg/kg
LD50 Dermal Rabbit	3500 mg/kg
ATE (oral)	500.000 mg/kg body weight
Acetic acid (64-19-7)	
LD50 Oral Rat	3310 mg/kg
LD50 Dermal Rabbit	1060 µl/kg
LC50 Inhalation Rat (mg/l)	11.4 mg/l/4h
Ethylene glycol (107-21-1)	
National Toxicity Program (NTP) Status	Evidence of carcinogenicity
SECTION 12. ECOLOGICAL INFORMATION	

Toxicity

Ethylene glycol (107-21-1)	
LC50 Fish 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	6500 - 13000 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)
LC 50 Fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Acetic acid (64-19-7)	
LC50 Fish 1	79 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	47 mg/l (Exposure time: 24 h - Species: Daphnia magna)
LC 50 Fish 2	75 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	65 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

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Persistence and Degradability	
Gill 3 Hematoxylin	
Persistence and Degradability N	ot established.
Bioaccumulative Potential	
Gill 3 Hematoxylin	
-	ot established.
Ethylene glycol (107-21-1)	
	93
· · · · · ·	
Acetic acid (64-19-7)	21 (-+ 20 %)
	0.31 (at 20 °C)
Mobility in Soil Not available	
Other Adverse Effects	
Other Information: Avoid release to the env	
SECTION 13: DISPOSAL CONSIDERAT	
	e of waste material in accordance with all local, regional, national, provincial, territorial
and international regulations.	
SECTION 14: TRANSPORT INFORMA	TION
In Accordance With ICAO/IATA/DOT/TDG	
<b><u>UN Number</u></b> Not regulated for transpor	
UN Proper Shipping Name Not regulate	ed for transport
Additional Information Not regulated for	or transport
Transport by sea Not regulated for trans	sport
Air transport Not regulated for transport	
	ATION
SECTION 15: REGULATORY INFORM	ATION
SECTION 15: REGULATORY INFORM	ATION
SECTION 15: REGULATORY INFORM US Federal Regulations Gill 3 Hematoxylin	
SECTION 15: REGULATORY INFORM	Delayed (chronic) health hazard
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes	
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1)	Delayed (chronic) health hazard Immediate (acute) health hazard
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory nemical listings)
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory nemical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory memical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory memical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7)	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs US State Regulations	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs US State Regulations Ethylene glycol (107-21-1)	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %
SECTION 15: REGULATORY INFORM/ US Federal Regulations   Gill 3 Hematoxylin   SARA Section 311/312 Hazard Classes   Ethylene glycol (107-21-1)   Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag   SARA Section 313 - Emission Reporting   Acetic acid (64-19-7)   Listed on the United States TSCA (Toxic Subs US State Regulations   Ethylene glycol (107-21-1)   U.S California - SCAQMD - Toxic Air Contar	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %
SECTION 15: REGULATORY INFORM/ US Federal Regulations   Gill 3 Hematoxylin   SARA Section 311/312 Hazard Classes   Ethylene glycol (107-21-1)   Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch   EPA TSCA Regulatory Flag   SARA Section 313 - Emission Reporting   Acetic acid (64-19-7)   Listed on the United States TSCA (Toxic Subs   US State Regulations   Ethylene glycol (107-21-1)   U.S California - SCAQMD - Toxic Air Contari   U.S California - Toxic Air Contaminant List	Delayed (chronic) health hazard   Immediate (acute) health hazard   stances Control Act) inventory   nemical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from   reactants included in a specified list of low concern reactants that comprises one   of the eligibility criteria for the exemption rule.   1.0 %   stances Control Act) inventory   ininants - Non-Cancer Chronic   (AB 1807, AB 2728)
SECTION 15: REGULATORY INFORM/ US Federal Regulations   Gill 3 Hematoxylin   SARA Section 311/312 Hazard Classes   Ethylene glycol (107-21-1)   Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic chr EPA TSCA Regulatory Flag   SARA Section 313 - Emission Reporting   Acetic acid (64-19-7)   Listed on the United States TSCA (Toxic Subs   US State Regulations   Ethylene glycol (107-21-1)   U.S California - SCAQMD - Toxic Air Contar   U.S Connecticut - Hazardous Air Pollutants	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory nemical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule. 1.0 % stances Control Act) inventory
SECTION 15: REGULATORY INFORM/ US Federal Regulations   Gill 3 Hematoxylin   SARA Section 311/312 Hazard Classes   Ethylene glycol (107-21-1)   Listed on the United States TSCA (Toxic Subsection 313 (Specific toxic cheer et al. 1998)   EARA Section 313 (Specific toxic cheer et al. 1998)   SARA Section 313 - Emission Reporting   Acetic acid (64-19-7)   Listed on the United States TSCA (Toxic Subsection State Regulations)   Ethylene glycol (107-21-1)   U.S California - SCAQMD - Toxic Air Contart   U.S Connecticut - Hazardous Air Pollutants   U.S Connecticut - Hazardous Air Pollutants   U.S Connecticut - Hazardous Air Pollutants	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory iemical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule. 1.0 % stances Control Act) inventory minants - Non-Cancer Chronic (AB 1807, AB 2728) 5 - HLVs (30 min) 5 - HLVs (8 hr)
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs US State Regulations Ethylene glycol (107-21-1) U.S California - SCAQMD - Toxic Air Contar U.S California - Toxic Air Contaminant List U.S Connecticut - Hazardous Air Pollutants U.S Delaware - Pollutant Discharge Require	Delayed (chronic) health hazard Immediate (acute) health hazard stances Control Act) inventory iemical listings) Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule. 1.0 % stances Control Act) inventory minants - Non-Cancer Chronic (AB 1807, AB 2728) 5 - HLVs (30 min) 5 - HLVs (8 hr) ements - Reportable Quantities
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs US State Regulations Ethylene glycol (107-21-1) U.S California - SCAQMD - Toxic Air Contar U.S California - Toxic Air Contaminant List U.S Connecticut - Hazardous Air Pollutants U.S Delaware - Pollutant Discharge Requir U.S Idaho - Non-Carcinogenic Toxic Air Pol	Delayed (chronic) health hazard Immediate (acute) health hazard   stances Control Act) inventory memical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.   1.0 %   stances Control Act) inventory   ininants - Non-Cancer Chronic (AB 1807, AB 2728) is - HLVs (30 min) is - HLVs (8 hr) ements - Reportable Quantities lutants - Acceptable Ambient Concentrations
SECTION 15: REGULATORY INFORM/ US Federal Regulations   Gill 3 Hematoxylin   SARA Section 311/312 Hazard Classes   Ethylene glycol (107-21-1)   Listed on the United States TSCA (Toxic Subslisted on SARA Section 313 (Specific toxic chreater and the United States TSCA (Toxic Subslisted on SARA Section 313 - Emission Reporting   SARA Section 313 - Emission Reporting   Acetic acid (64-19-7)   Listed on the United States TSCA (Toxic Subslisted on the United St	Delayed (chronic) health hazard Immediate (acute) health hazard   stances Control Act) inventory memical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.   1.0 %   stances Control Act) inventory   ininants - Non-Cancer Chronic (AB 1807, AB 2728) is - HLVs (30 min) is - HLVs (8 hr) ements - Reportable Quantities lutants - Acceptable Ambient Concentrations
SECTION 15: REGULATORY INFORM/ US Federal Regulations Gill 3 Hematoxylin SARA Section 311/312 Hazard Classes Ethylene glycol (107-21-1) Listed on the United States TSCA (Toxic Subs Listed on SARA Section 313 (Specific toxic ch EPA TSCA Regulatory Flag SARA Section 313 - Emission Reporting Acetic acid (64-19-7) Listed on the United States TSCA (Toxic Subs US State Regulations Ethylene glycol (107-21-1) U.S California - SCAQMD - Toxic Air Contar U.S California - Toxic Air Contaminant List U.S Connecticut - Hazardous Air Pollutants U.S Delaware - Pollutant Discharge Requir U.S Idaho - Non-Carcinogenic Toxic Air Pol	Delayed (chronic) health hazard Immediate (acute) health hazard   stances Control Act) inventory remical listings)   Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.   1.0 %   stances Control Act) inventory   minants - Non-Cancer Chronic (AB 1807, AB 2728) 5 - HLVs (30 min) 5 - HLVs (8 hr) ements - Reportable Quantities lutants - Acceptable Ambient Concentrations lutants - Emission Levels (ELs)

U.S. - Maine - Air Pollutants - Hazardous Air Pollutants





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U.:	S Massachusetts - Allowable Ambient Limits (AALs)
U.:	S Massachusetts - Allowable Threshold Concentrations (ATCs)
U.9	S Massachusetts - Drinking Water Guidelines
U.9	S Massachusetts - Right To Know List
U.9	S Massachusetts - Threshold Effects Exposure Limits (TELs)
U.9	S Massachusetts - Toxics Use Reduction Act
U.9	S Michigan - Occupational Exposure Limits - Ceilings
U.9	S Michigan - Polluting Materials List
U.9	5 Minnesota - Groundwater Health Risk Limits
U.9	S Minnesota - Hazardous Substance List
U.9	5 Minnesota - Permissible Exposure Limits - Ceilings
U.:	S New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.9	S New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.9	S New Jersey - Discharge Prevention - List of Hazardous Substances
U.9	S New Jersey - Environmental Hazardous Substances List
U.9	S New Jersey - Right to Know Hazardous Substance List
U.9	S New Jersey - Water Quality - Ground Water Quality Criteria
U.:	S New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.:	S New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.9	S North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.9	S Oregon - Permissible Exposure Limits - TWAs
U.9	S Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.9	S Pennsylvania - RTK (Right to Know) List
U.9	S Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.9	S Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.:	S South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.9	S South Carolina - Toxic Air Pollutants - Pollutant Categories
U.9	S Tennessee - Occupational Exposure Limits - Ceilings
	S Texas - Effects Screening Levels - Long Term and Short Term
	S Vermont - Permissible Exposure Limits - Ceilings
	S Washington - Permissible Exposure Limits - Ceilings
	5 Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
	S Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
	S Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.:	S Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet
Ac	etic acid (64-19-7)
	S Connecticut - Hazardous Air Pollutants - HLVs (30 min)
	S Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
	S Delaware - Pollutant Discharge Requirements - Reportable Quantities
	S Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
	S Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
	S Idaho - Occupational Exposure Limits - TWAs
	5 Louisiana - Reportable Quantity List for Pollutants
	S Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
	S Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
	S Massachusetts - Oil & Hazardous Material List - Reportable Quantity
	S Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
	S Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
	S Massachusetts - Right To Know List
	5 Massachusetts - Toxics Use Reduction Act
	5 Michigan - Occupational Exposure Limits - TWAs
	S Michigan - Polluting Materials List
U.:	S Minnesota - Hazardous Substance List



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- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) 24-Hour
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) Annual
- U.S. New Jersey Discharge Prevention List of Hazardous Substances
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New Jersey Special Health Hazards Substances List
- U.S. New York Occupational Exposure Limits TWAs
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances
- U.S. North Carolina Control of Toxic Air Pollutants
- U.S. North Dakota Air Pollutants Guideline Concentrations 1-Hour and 8-Hour
- U.S. Oregon Permissible Exposure Limits TWAs
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. Tennessee Occupational Exposure Limits TWAs
- U.S. Texas Effects Screening Levels Long Term and Short Term
- U.S. Washington Permissible Exposure Limits STELs and TWAs
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 25 Feet to Less Than 40 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 40 Feet to Less Than 75 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 75 Feet or Greater
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights Less Than 25 Feet

#### **Canadian Regulations**

Gill 3 Hematoxylin	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Ethylene glycol (107-21-1	
Listed on the Canadian DS	L (Domestic Substances List) inventory.
Listed on the Canadian Ing	gredient Disclosure List
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

### Acetic acid (64-19-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.						
Listed on the Canadian Ingredient Disclosure List						
WHMIS Classification	Class B Division 3 - Combustible Liquid					
	Class E - Corrosive Material					

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

#### SECTION 16: OTHER INFORMATION

Indication of Changes	: 05/30/2014
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA
	Hazard Communication Standard 29 CFR 1910.1200

#### **GHS Full Text Phrases:**

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3



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Flam. Liq. Not classified	Flammable liquids Not classified
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

NFPA Health Hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

: 1 - Must be preheated before ignition can occur.

**NFPA Fire Hazard NFPA Reactivity** 

0 - Normally stable, even under fire exposure conditions, and are not reactive with : water.



#### **HMIS III Rating**

Health	:	2 Moderate Hazard - Temporary or minor injury may occur		
Flammability	:	1 Slight Hazard		
Physical	:	0 Minimal Hazard		
Party Responsible for the Preparation of This Document				
Avantik Biogroup				
Phone Number: 888-392-8411				

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

North America GHS US 2012 & WHMIS