

# Safety Data Sheet

## Gill's Hematoxylin Solution No. 3

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Gill's Hematoxylin Solution No. 3

**Catalog Numbers:** SO-341, J-602-2A, L-759-3

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

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H290-Corrosive to metals: 1

H302-Acute toxicity, oral: 4

H314-Skin corrosion/irritation: 1A

H318-Serious eye damage/eye irritation: 1

H361-Reproductive toxicity: 2

H370-Specific target organ toxicity, single exposure: 1

H372-Specific target organ toxicity, repeated exposure: 1

4.9% of the mixture consists of ingredients of unknown acute oral toxicity.

5.6% of the mixture consists of ingredients of unknown acute inhalation toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

#### Hazard Statements:

H290-May be corrosive to metals

H302-Harmful if swallowed

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

H361-Suspected of damaging fertility or the unborn child  
H370-Causes damage to organs (target organs: central nervous system, kidney, blood, and liver)  
H372-Causes damage to organs through prolonged or repeated exposure (target organs: central nervous system, kidney, blood, and liver)

### Precautionary Statements:

P201-Obtain special instructions before use.  
P202-Do not handle until all safety precautions have been read and understood.  
P234-Keep only in original packaging.  
P260-Do not breathe dust/fume/gas/mist/vapours/spray.  
P264-Wash thoroughly after handling.  
P270-Do not eat, drink, or smoke when using this product.  
P280-Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.  
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P311-If exposed or concerned: Call a Poison Center/doctor.  
P308+P313-If exposed or concerned: Get medical advice/attention.  
P310-Immediately call a Poison Center/doctor.  
P314-Get medical advice/attention if you feel unwell.  
P330-Rinse mouth.  
P363-Wash contaminated clothing before reuse.  
P390-Absorb spillage to prevent material damage.  
P405-Store locked up.  
P406-Store in a corrosion resistant container with a resistant inner liner.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
517-28-2	Hematoxylin	0.6 w/v
7681-55-2	Sodium Iodate	0.06 w/v
7784-26-1	Ammonium Aluminum Sulfate Dodecahydrate	4.9 w/v
107-21-1	Ethylene Glycol	25 v/v
64-19-7	Glacial Acetic Acid	6 v/v
7732-18-5	Water	Balance

#### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical advice.

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

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

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides, sodium oxides, sulfur oxides, aluminum oxides, hydrogen iodide, irritating and toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

#### Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Store in a cool, dry, and well-ventilated area. Keep in a tightly closed and non-metal container. Light sensitive. Keep away from heat, flames, sparks, and all sources of ignition. Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

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

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**Exposure Limits:**

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA – Final PELs
Hematoxylin CAS#517-28-2	Not listed	Not listed	Not listed
Sodium Iodate CAS#7681-55-2	Not listed	Not listed	Not listed
Ammonium Aluminum Sulfate Dodecahydrate CAS#7784-26-1	Not listed	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA (vacated)
Ethylene Glycol CAS#107-21-1	25ppm TWA 50 ppm STEL 10 mg/m <sup>3</sup> STEL	Not listed	50 ppm Ceiling (vacated) 125 mg/m <sup>3</sup> Ceiling (vacated)
Glacial Acetic Acid CAS#64-19-7	10 ppm TWA 15 ppm STEL	10 ppm TWA 25 mg/m <sup>3</sup> TWA 15 ppm STEL 37 mg/m <sup>3</sup> STEL 50 ppm IDLH	10 ppm TWA 25 mg/m <sup>3</sup> TWA

**OSHA Vacated PELs:** Ammonium Aluminum Sulfate Dodecahydrate: 2 mg/m<sup>3</sup> TWA  
Glacial Acetic Acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid  
**Appearance:** Brown-red  
**Odor:** Vinegar-like  
**Vapor Pressure:** Not available  
**Odor Threshold:** Not available  
**Vapor Density:** Not available  
**pH:** Not available  
**Relative Density:** Not available  
**Melting point/freezing point:** Not available  
**Solubility:** Soluble in water  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Evaporation Rate:** Not available  
**Flammability (solid, gas):** Not available  
**Partition coefficient: n-octanol/water:** Not available  
**Autoignition Temperature:** Not available  
**Decomposition Temperature:** Not available  
**Viscosity:** Not available  
**Specific Gravity/Density:** Not available

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, ignition sources, and excess heat. Light sensitive.  
**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases, reducing agents, aldehydes, chromic acid, nitric acid, perchloric acid, phosphorous trichloride, sodium peroxide, strong caustics, carbonates, hydroxides, oxides, phosphates, sulfides, peroxides, organic materials, metals, finely powdered metals, combustible material, permanganates, dichromates, reactive sodium compounds, sulfur compounds, various plastics, alkali metals, and nitrates.  
**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, sodium oxides, sulfur oxides, aluminum oxides, hydrogen iodide, irritating and toxic fumes and gases.

## Section 11 - Toxicological Information

### **CAS#517-28-2 Hematoxylin: RTECS#: MH7875000**

LD50 Oral: >2000 mg/kg (rat)  
LD50 Dermal: Not available  
LC50 Inhalation: Not available

**Carcinogenicity:** Hematoxylin CAS#517-28-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

### **CAS#7681-55-2 Sodium Iodate: RTECS#: NN1400000**

LD50 Oral: 505 mg/kg (mouse)

LD50 Dermal: Not available  
LC50 Inhalation: Not available

**Carcinogenicity:** Sodium iodate CAS#7681-55-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**CAS#7784-26-1 Ammonium Aluminum Sulfate Dodecahydrate:**

LD50 Oral: Not available  
LD50 Dermal: >2000 mg/kg (rat)  
LC50 Inhalation: Not available

**Carcinogenicity:** Ammonium Aluminum Sulfate Dodecahydrate CAS#7784-26-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

**CAS#107-21-1 Ethylene Glycol: RTECS#: KW2975000**

LD50 Oral: 7712 mg/kg (rat)  
LD50 Oral: 500.1 mg/kg  
LD50 Dermal: 10600 mg/kg (rat)  
LC50 Inhalation: >2.5 mg/L 6h aerosol (rat)

**Carcinogenicity:** Ethylene Glycol CAS#107-21-1 is not listed by IARC, NTP, ACGIH, or OSHA. Ethylene Glycol is listed by California Prop. 65 as a developmental carcinogen (birth defects or other reproductive harm).

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

LD50 Oral: 3310 mg/kg (rat)  
LD50 Dermal: 1060 mg/kg (rabbit)  
LC50 Inhalation: 11.4 mg/L 4h (rat)

**Investigated as a mutagen, reproductive effector.**

Skin corrosion/irritation: skin (rabbit), causes severe burns.  
Serious eye damage/irritation: eyes (rabbit), corrosive to eyes, causes serious eye damage.

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

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

**Epidemiology:** Not available

**Teratogenicity:** Laboratory experiments have shown teratogenic effects. (Ethylene glycol)

**Reproductive Effects:** Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected of damaging fertility or the unborn child. (Ethylene glycol)

**Developmental Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Specific Target Organ Toxicity, Single Exposure:** Central nervous system, kidney, blood, and liver.

**Specific Target Organ Toxicity, Repeated Exposure:** Central nervous system, kidney, blood, and liver.

**Symptoms associated with exposure:** Causes severe skin burns. Causes serious eye damage. Harmful if swallowed. Early symptoms mimic alcohol inebriation followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, metabolic acidosis, and/or CNS depression. Exposure causes damage to organs (CNS, kidney, blood, liver). Suspected of damaging fertility or the unborn child.

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

Section 12 - Ecological Information
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**Ecotoxicity:** Do not release to the environment. Do not release to drains. Harmful to aquatic life.

**CAS#517-28-2 Hematoxylin:**

LC50, freshwater fish: >35 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

EC50, freshwater algae: >100 mg/L 7d (lemna minor)

EC50, water flea: 29.7 mg/L 48h (daphnia magna)

**CAS#7681-55-2 Sodium Iodate:**

LC50, freshwater fish: 220 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

**CAS#107-21-1 Ethylene Glycol:**

LC50, freshwater fish: >72860 mg/L 96h static (pimephales promelas)(fathead minnow)

LC50, freshwater fish: 27540 mg/L 96h (lepomis macrochirus)(bluegill)

LC50, freshwater fish: 40761 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)

EC50, water flea: >100 mg/L 48h static (daphnia magna)

**CAS#64-19-7 Glacial Acetic Acid:**

LC50, freshwater fish: 88 mg/L 96h (pimephales promelas)(fathead minnow)

LC50, freshwater fish: 75 mg/L 96h (lepomis macrochirus)(bluegill)

EC50, water flea: 95 mg/L 24h

EC50, microtox: 8.8 mg/L 5min (photobacterium phosphoreum)

**Persistence and degradability:** Not available.

**Bio-accumulative potential:** Not available.

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

### Section 13 - Disposal Considerations

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

### Section 14 – Transport Information

**DOT**

Non-Regulated

### Section 15 - Regulatory Information

#### **Canada Regulatory Information**

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

### Section 16 - Additional Information

**SDS Creation Date:** 10/15/12

**Revision #1:** 1/28/15 RC

**Revision #2:** 8-13-20

**Revision #3:** 8-25-23

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