

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, L-759-3
Company Identification: ROWLEY BIOCHEMICAL
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
H332-Acute toxicity, inhalation: 4
H361-Reproductive toxicity: 2
H370-Specific target organ toxicity, single exposure: 1

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

H332-Harmful if inhaled
H361-Suspected of damaging fertility or the unborn child
H370-Causes damage to organs (central nervous system, kidney, 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 container.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
P280-Wear eye protection/face protection/protective gloves/protective clothing.
P281-Use personal protective equipment as required.
P301+P312-If swallowed: Call a Poison Center or doctor/physician if you feel unwell.
P301+P330+P331-If swallowed: Rinse mouth. Do not induce vomiting.
P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position 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.
P307+P311-If exposed: Call a Poison Center or doctor/physician.
P308+P313-If exposed or concerned: Get medical advice/attention.
P310-Immediately call a poison center or doctor/physician.
P312-Call a Poison Center or doctor/physician 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 corrosive resistant container with a resistant inner liner.
P501-Dispose of contents 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	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.

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 and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.

Flash Point: not available

Autoignition Temperature: not available

Explosion Limit, Lower: not Available

Explosion Limit, Upper: not Available

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

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective gear. 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. Provide ventilation. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Wear personal protective equipment as required. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Store in a cool, dry, well-ventilated area. Keep in a tightly closed container. Keep away from incompatible materials. Protect from heat and sources of ignition. Note: this material is light sensitive.

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.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA PEL
Ethylene glycol	TWA: 25ppm STEL: 50 ppm STEL: 10 mg/m ³	-	Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³ (vacated)
Glacial Acetic Acid	15 ppm STEL 10 ppm TWA	10 ppm TWA 25 mg/m ³ TWA 50 ppm IDLH 15 ppm STEL 37 mg/m ³ STEL	10 ppm TWA 25 mg/m ³ TWA
Ammonium aluminum sulfate dodecahydrate	-	TWA: 2 mg/m ³	TWA: 2 mg/m ³ (vacated)
Hematoxylin	Not listed	Not listed	Not listed

OSHA Vacated PELs: Glacial Acetic Acid: 10 ppm TWA; 25 mg/m³ TWA

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.

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
Boiling Point: not available
Flash point: not available
Evaporation Rate: not available
Flammability (solid, gas): not available
Partition coefficient: n-octanol/water: not available
Auto-ignition temperature: not available
Decomposition temperature: not available
Viscosity: not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Keep container closed. Light sensitive.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, strong bases, aldehydes, chromic acid, ethylene glycol, perchloric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, most metals, carbonates, hydroxides, oxides, phosphates, sulfides, peroxides, reducing agents.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides, sulfur oxides, sodium oxides, hydrogen iodide, irritating and toxic fumes.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

Ethylene glycol CAS# 107-21-1: RTECS#: KW2975000

LD50, Oral: 7712 mg/kg (rat)

LD50, Dermal: 9530 mg/kg (rabbit); 10600 mg/kg (rat)

LC50, Inhalation: >2.5 mg/L (rat) 6h

Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, OSHA. Listed by California Proposition 65 as a developmental toxin (birth defects or other reproductive harm).

Epidemiology: Not Available

Reproductive Effects: Laboratory experiments have shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected of damaging fertility or the unborn child.

Developmental Effects: Not Available

Neurotoxicity: Not Available

Mutagenicity: Not Available

Specific Target Organ Toxicity – Single Exposure: Central Nervous System, Kidney, Liver

Specific Target Organ Toxicity – Repeat Exposure: Not available

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

LD50/LC50:

Glacial Acetic Acid CAS# 64-19-7:

LD50 Oral: 3310 mg/kg (rat)

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

LC50 Inhalation: 5620 ppm (mouse) 1h

LD50 Dermal: 1,112 mg/kg (rabbit)

Investigated as a mutagen, reproductive effector.

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

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

Carcinogenicity:

Acetic Acid CAS# 64-19-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Ammonium aluminum sulfate dodecahydrate CAS# 7784-26-1:

LD50, Oral: not available

LD50, Dermal: not available

LC50, Inhalation: not available

Carcinogenicity:

Ammonium aluminum sulfate dodecahydrate CAS# 7784-26-1:

Not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Hematoxylin CAS# 517-28-2:

RTECS#: MH7875000

LD50/LC50, Oral: 400 mg/kg (rat)

LD50, Dermal: no information available

LC50, Inhalation: no information available

Carcinogenicity:

Hematoxylin CAS# 517-28-2:

Not listed by IARC, NTP, ACGIH, OSHA, or CA Prop. 65.

Sodium iodate CAS# 7681-55-2:

RTECS#: NN1400000

LD50/LC50, Oral: 505 mg/kg (mouse)

LD50, Dermal: no information available

LC50, Inhalation: no information available

Carcinogenicity:

Sodium iodate CAS# 7681-55-2:

Not listed by IARC, NTP, ACGIH, OSHA, or CA Prop. 65.

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

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.

Ethylene glycol CAS# 107-21-1:

EC50 Freshwater Algae = 6500-13000 mg/l (Pseudokirchneriella subcapitata) 96 h
LC50 Freshwater Fish = 16000 mg/l (Poecilia reticulata) 96 h/static; 40000-60000 mg/l (Pimephales promelas) 96 h/static; 40761 mg/l (Oncorhynchus mykiss) 96 h/static
EC50 Water Flea = 46300 mg/L 48 h (Daphnia magna)

Acetic Acid CAS# 64-19-7:

LC50 freshwater fish: 88 mg/L 96h (Pimephales promelas); 75 mg/L 96h (Lepomis macrochirus)
EC50 water flea: 95 mg/L 24h

Ammonium aluminum sulfate dodecahydrate CAS# 7784-26-1:

LC50/EC50: not available

Sodium iodate CAS# 7681-55-2:

LC50 (freshwater fish): 220 mg/L (Oncorhynchus mykiss) 96h
EC50 (water flea): not available
EC50 (bacteria): not available

Hematoxylin CAS# 517-28-2:

LC50/EC50: not available

Persistence and degradability: No information available

Bioaccumulative potential: No information 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: Not 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

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