Safety Data Sheet
MAYER’S HEMATOXYLIN

Section 1 - Chemical Product and Company Identification

**SDS Name:** Mayer’s Hematoxylin  
**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**  
**HEALTH HAZARDS**

H300-Acute Oral Toxicity: 1  
H311-Acute Dermal Toxicity: 3  
H302-Acute Inhalation toxicity: 4  
H314-Skin Corrosion/Skin Irritation: 1B  
H318-Eye damage/Irritation: 1  
H334-Respiratory Sensitization: 1B  
H317-Skin Dermal Sensitization: 1  
H340-Germ Cell Mutagenicity: 1B  
H361-Reproductive Toxicity: 2  
H362-Reproductive Toxicity: 2  
H370-Specific Target Organ Toxicity: 1

**PHYSICAL HAZARDS**

H290-May be corrosive to metals: 1

**ENVIRONMENTAL HAZARDS**

H400- Aquatic acute environmental Hazards: 1
Pictograms or Hazard symbols and Hazard statement.

Fatal if swallowed.
Toxic in contact with skin.

Causes serious eye damage.
May be corrosive to metals.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause genetic defects.
Causes damage to organs.

May cause an allergic skin reaction.
Harmful if inhaled.
Very toxic to aquatic life.

**Precautionary Statement Prevention**

**H300**
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P301 + P310 If swallowed, immediately call a physician.
P330 Rinse mouth.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

H302
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P301 + P312 If swallowed, call a physician if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
P330 Rinse mouth.

H311
P280 Wear protective gloves, clothing, and eye and face protection.
P302 + P352 If on skin, wash with plenty of water. Remove contact lenses if present and easy to do so. Continue rinsing.
P312 Call a physician if you feel unwell
P361 + P363 Take off immediately all contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

H314
P260 Do not breathe fume/gas/mist/vapors.
P264 Wash thoroughly after handling.
P280 Wear protective gloves, clothing, and eye and face protection.
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.
P363 Wash contaminated clothing before reuse.
P304 + P340 If inhaled, remove person to fresh air and keep comfortable for breathing.
P310 Seek medical assistance if exposed.
P405 Store locked up.
P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

H318
P280 Wear eye and face protection.
P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.
P337 + P313 If eye irritation persists, get medical advice/attention.

H334
P281 Avoid breathing fumes/mist/vapors.
P285 In case of inadequate ventilation, wear respiratory protection.
P304+P341 IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 if experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

H317
P272 Contaminated work clothing should not be allowed out of the work place.
P333+P313 IF ON SKIN: Wash with plenty of soap and water.
P363 Wash contaminated clothing before reuse.

H340
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P308 + P313 If exposed or concerned: Get medical advice/attention.
P405 Store Locked up
P501 Dispose of contents/container to… in accordance with local/regional/national/international regulations (to be specified)

H361
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Section 3 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>517-28-2</td>
<td>Hematoxylin</td>
<td>0.1 w/v</td>
</tr>
<tr>
<td>7784-26-1</td>
<td>Ammonium Alum</td>
<td>5 w/v</td>
</tr>
<tr>
<td>7681-55-2</td>
<td>Sodium Iodate</td>
<td>0.02 w/v</td>
</tr>
<tr>
<td>77-92-2</td>
<td>Citric Acid</td>
<td>0.1 w/v</td>
</tr>
<tr>
<td>302-18-5</td>
<td>Chloral Hydrate</td>
<td>5 w/v</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>100 v/v</td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

H362
P260 Do not breathe fume/gas/mist/vapors.
P263 Avoid contact during pregnancy/while nursing.
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P308 + P313 If exposed or concerned, get medical advice/attention.

H290
P234 Keep only in original container.
P390 Absorb spillage to prevent material damage.
P406 Store in corrosive resistant/container with a resistant inner liner.

H340
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P308 + P313 If exposed or concerned: Get medical advice/attention.
P405 Store Locked up.
P501 Dispose of contents/container to...in accordance with local/regional/national/international regulations (to be specified).

H370
P60 Do not breathe dust/fume/gas/mist/vapors/spray. Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.
P264 Wash thoroughly after handling. ...Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.
P270 Do not eat, drink, or smoke when using this product.
P307 + P311 If exposed call a POISON CENTER or doctor/physician.
P321 Specific treatment (see...on this label) Reference to supplemental first aid instruction. If immediate measures are required.
P405 Store locked up.
P501 Dispose of contents/container to...in accordance with local/regional/national/international regulations (to be specified).
**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. Call a physician.

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

**Oral Exposure:** If Swallowing seek immediate medical advice.

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

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**Section 5 - Fire Fighting Measures**

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

**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. Water may be ineffective. Do NOT use straight streams of water.

**Flash Point:** N/a

**Autoignition Temperature:** N/A

**Explosion Limits, Lower:** N/A

**Upper:** N/A

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

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**Section 6 - Accidental Release Measures**

**Procedure(s) of Personal Precaution(s):** Wear protective gear. Eliminates all sources of ignition.

**Methods for Cleaning up:** Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

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**Section 7 - Handling and Storage**

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials.

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**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.

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**Section 9 - Physical and Chemical Properties**

**Physical State:** Liquid

**Appearance:** Dark brown-purplish.

**Vapor Pressure:** N/A

**Vapor Density:** N/A

**Evaporation Rate:** N/A

**Viscosity:** N/A

**Boiling Point:** N/A

**Freezing/Melting Point:** N/A

**Decomposition Temperature:** N/A

**Solubility:** Soluble.

**Specific Gravity/Density:** N/A

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**Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal temperatures and pressures.

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

**Incompatibilities with Other Materials:** Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

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**Section 11 - Toxicological Information**

**Routes of entry:** Absorbed through skin, eye contact, inhalation or ingestion.

**RTECS#:** KQ6300000

**LD50/LC50:**

**CAS# 517-28-2:** Not Available

**CAS# 7784-26-1**

Not Available
CAS# 7681-55-2
Not Available

CAS#77-92-9
Oral, mouse: LD₅₀ = 5040 mg/kg.
Oral, rat: LD₅₀ = 3000 mg/kg.

CAS#302-17-0
Oral, mouse: LD₅₀ = 1100 mg/kg.
Oral, rat: LD₅₀ = 479 mg/kg.
Dermal, rat: LD₅₀ = 3030 mg/kg;<BR.

Solution Carcinogenicity:
(Not classifiable by human) by IARC. May cause cancer based on animal test data.

Epidemiology: Citric Acid: The substance may be toxic to teeth and hypocalcaemia (calcium deficiency in blood)

Teratogenicity: May cause adverse reproductive effects and birth defects based on animal test data.

Reproductive Effects: Chloral Hydrate: Human: passes through the placenta, excreted in maternal milk.

Neurotoxicity: Chloral Hydrate: May cause damage to the central nervous system and optic nerves.

Mutagenicity: Chloral Hydrate: May affect genetic material. Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

Other Studies: LDL Rabbit- Oral, Dose: 7000 mg/kg

Section 12 - Ecological Information

Ecotoxicity: N/A

Environmental: Possible hazardous short term degradation products are not likely. However long term degradation products may arise.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Appropriate method of disposal of substance or preparation:

Handled as hazardous waste and sent to an RCRA approved incinerator or disposed in an RCRA approved wasted facility.

Section 14 – Transport Information

DOT
Non-Regulated
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.

California Prop 65
WARNING: California. No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
Xn: Harmful.

Risk Phrases:
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
R36/38 Irritating to eyes and skin
R51 Toxic to aquatic organisms
   R46 May cause heritable genetic damage.
   R60 May impair fertility.
   R61 May cause harm to the unborn child

Safety Phrases:
S20/21 When using do not eat, drink or smoke
S2 Keep out of the reach of children
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.
S7 Keep container tightly closed.
S9 Keep container in a well-ventilated place

MSDS Creation Date: 10/21/12
Revision #2. YM 2/24/14. Co-sign RC 11/14/15
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