



# Material Safety Data Sheet

## VWR<sup>®</sup> Harris Hematoxylin

### 1. Product and Preparation Information

|   |  |   |
|---|--|---|
| <b>Product Identifier</b><br>VWR <sup>®</sup> Hematoxylin, Harris   | <b>Product Use</b><br>Biological stain   | <b>Date Prepared</b><br>July, 2009  |
| <b>Synonym / Chemical Name</b><br>Denatured ethyl alcohol, primary aliphatic alcohol, hematoxiline, hydroxybrazlin, natural black 1 |  | <b>VWR Product #</b> 95057-858  |
| <b>Manufacturer/ Preparer</b><br>Leica Biosystems Richmond, Inc.<br>5205 Route 12<br>Richmond, IL 60071                             | <b>Distributor</b><br>VWR International<br>1310 Goshen Parkway<br>West Chester, PA 19380<br>800.932.5000 | <b>Emergency Contact</b><br>Chemtrec USA and Canada 800.424.9300<br>Chemtrec International 703.527.3887<br>Canutec 613.996.6666 |

### 2. Preventive Measures

#### Personal Protection



#### NFPA



#### US DOT

Not Regulated

#### Canadian WHMIS

B3



D2A



#### Personal Protection

|                    |   |
|--------------------|---|
| <b>Eyes</b>        | Safety glasses  |
| <b>Body</b>        | Laboratory coat   |
| <b>Respiratory</b> | NIOSH/MSHA approved respirator when ventilation is inadequate |
| <b>Hands</b>       | Latex or nitrile gloves                                       |

#### Emergency Overview

**WARNING!** Combustible liquid and vapor. May be harmful if absorbed through skin or if swallowed. Contains material that may cause nervous system, respiratory tract, skin and eye damage. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Do not ingest. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. For In Vitro Diagnostic Use. For Laboratory Use.

#### Engineering Controls

General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are proximal to the workstation or tissue processor.

#### Handling and Storage

Dissipate static electricity during transfer by grounding and bonding containers and equipment. Keep containers closed and out of reach of children. Do not use near open flames or sparks. Store at room temperature. Store in flammable liquid safety cabinet when possible.

#### Small Spill and Leak

Dilute with water and mop, or absorb with an inert dry material and place in an appropriate waste disposal container.

#### Large Spill and Leak

Keep away from heat and ignition sources. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Avoid skin and eye contact. Prevent entry into sewers, basements or confined areas: dike if needed. Eliminate all ignition sources. Be careful that airborne concentrations do not exceed published exposure and lower explosive limits.

#### Waste Disposal

Follow all federal, state, local and provincial regulations.

### 3. Hazardous Ingredients

| Hazardous Ingredient      | % wt. | CAS Number | LD50   | LC50   | TDG PIN       |
|---------------------------|-------|------------|--|--|---------------|
| Hematoxylin powder        | <1    | 517-28-2   | NA   | NA   | Not Regulated |
| Sodium iodate             | <1    | 7681-55-2  | 505 mg/kg oral mouse                           |  |               |
| Ammonium aluminum sulfate | 0-30  | 7784-26-1  | NA   | NA   |               |
| Ethanol                   | <4    | 64-17-5    | 7,060 mg/kg oral rat<br>3,450 mg/kg oral mouse | 20,000 ppm/10 hr. inhalation rat<br>39 gm/m <sup>3</sup> /4hr inhalation mouse       |               |
| Isopropanol               | <0.5  | 67-63-0    | 5,045 mg/kg oral rat<br>3,600 mg/kg oral mouse | 72,600 mg/m <sup>3</sup> inhalation rat<br>53,000 mg/m <sup>3</sup> inhalation mouse |               |
| Methanol                  | <0.5  | 67-56-1    | 5,600 mg/kg oral rat<br>7,300 mg/kg oral mouse | 64,000 ppm/4 hr. inhalation rat<br>81,000 mg/m <sup>3</sup> /14hr rabbit             |               |

### 4. First Aid Measures

|                     |   |
|---------------------|---|
| <b>Eye Contact</b>  | Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.  |
| <b>Skin Contact</b> | Remove contaminated clothing immediately. Wash the affected areas with soap or mild detergent and large amounts of water for at least 15 minutes.                     |
| <b>Inhalation</b>   | Move individual to fresh air immediately. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Get medical attention. |
| <b>Ingestion</b>    | Never give anything by mouth to an unconscious person. Induce vomiting. Give no more than 2 glasses of water. Get medical attention immediately.                      |

### 5. Physical Data

|  |   |  |  |  |
|--|---|--|--|--|
| <b>Physical State</b><br>Liquid              | <b>Odor and Appearance</b><br>Dark purple, alcohol odor | <b>Odor Threshold (ppm)</b><br>180 ppm Ethanol | <b>Solubility</b><br>Easily soluble in water | <b>Auto-ignition Temp</b><br>685° F (363° C) |
| <b>Vapor Pressure</b><br>40mmHg @ 20C (MeOH) | <b>Vapor Density</b><br>1.6 Ethanol (air-1)             | <b>Evaporation Rate</b><br>N/A                 | <b>Boiling Point</b><br>173° F (78° C)       | <b>Flash Point CC</b><br>144° F (62° C)      |
| <b>pH</b><br>N/A                             | <b>Specific Gravity</b><br><1.5 Water=1                 | <b>Coeff. Water/oil Dist.</b><br>N/A           | <b>Freezing Point</b><br>-70° F (-16° C)     | <b>Flammable Limits</b><br>3.3% LEL 19% UEL  |

### 6. Fire and Explosion

|  |   |   |
|--|---|---|
| <b>Flammability</b><br>Combustible Liquid II (Canada B2)   | <b>Conditions</b><br>Excessive heat, sparks and open flames.  | <b>Fl. Pt - Auto Ignition - Flammable Limits</b><br>See Physical Data above |
| <b>Explosivity</b><br>Not explosive under normal conditions of use. Vapors are heavier than air and may settle in low areas. Not sensitive to impact. Properly ground equipment during transfer (NFPA 77). |   |   |
| <b>Hazardous Combustion Products</b><br>CO, CO2 Some metallic oxides   | <b>Means of Extinction</b><br>Small Fire – Use DRY chemical powder. Large Fire – Use alcohol foam, water spray or fog |   |

### 7. Reactivity

|   |   |  |
|---|---|--|
| <b>Stability</b><br>Product is stable under normal conditions of use. | <b>Hazardous Decomposition Products</b><br>CO from incomplete combustion, CO2 |  |
| <b>Conditions of Reactivity</b><br>NA                                 | <b>Hazardous Polymerization</b><br>No hazardous polymerization.               | <b>Incompatibility</b><br>Oxidizing agents |

## 8. Toxicological Properties

**Routes of Entry** eyes, ingestion      **Target Organs** Liver, kidney, gastrointestinal tract, reproductive and nervous systems

### Effects of Acute Exposure

**Eye** Slightly hazardous in case of eye contact (irritant)  
**Skin** Slightly hazardous (irritant). Skin inflammation is characterized by itching, scaling, reddening or occasionally blistering.  
**Absorption** NA  
**Inhalation** Slightly hazardous in case of inhalation  
**Ingestion** Slightly hazardous in case of ingestion.

### Effects of Chronic Exposure

Repeated exposure by inhalation may cause system poisoning, impaired vision or blindness. Inhalation may worsen conditions such as emphysema or bronchitis. Repeated skin exposure may cause defatting of the skin.

### Carcinogenic Effects

Ethanol and methanol are not classified as a human carcinogen. Isopropanol is classified as Group 3 (not classifiable) by IARC.

### Reproductive Toxicity

Ethyl alcohol when used as a beverage has proven to be toxic to blood, nervous system, reproductive system, liver, gastrointestinal tract, respiratory tract, skin and eyes.

### Teratogenic and Mutagenic Effects

NA

| Exposure Limits           | OSHA PEL TWA          | ACGIH TLV TWA | STEL    | TWAEV (Ont.) | STE V (Ont.) | CEV (Ont.) |
|---------------------------|-----------------------|---------------|---------|--------------|--------------|------------|
| Hematoxylin powder        | NA                    | NA            | NA      | NA           | NA           | NA         |
| Sodium iodate             | NA                    | NA            | NA      | NA           | NA           | NA         |
| Ammonium aluminum sulfate | NA                    | NA            | NA      | NA           | NA           | NA         |
| Ethanol                   | 1,900 ppm             | 1,000 ppm     | NA      | 1,000 ppm    | NA           | NA         |
| Isopropanol               | 980 mg/m <sup>3</sup> | 400 ppm       | 500 ppm | 200 ppm      | 400 ppm      | NA         |
| Methanol                  | 260 ppm               | 200 ppm       | 250 ppm | 200 ppm      | 250 ppm      | NA         |

## 9. Regulatory Information

|   |   |  |   |
|---|---|--|---|
| <b>OSHA Hazardous</b><br>Irritant                   | <b>Cal. Prop. 65</b><br>Not listed              | <b>Canadian WHMIS</b><br>B3, D2A                 | <b>RCRA Regulated</b><br>Not listed               |
| <b>SARA 302/304</b><br>Not Listed                   | <b>SARA 313</b><br>MeOH Listed                  | <b>CERCLA 102A</b><br>MeOH Listed                | <b>RQ</b><br>5000 lbs. MeOH                       |
| <b>CWA 307</b><br>Not Listed                        | <b>CWA 311</b><br>Not Listed                    | <b>CAA 112 Release Prevention</b><br>MeOH Listed | <b>CAA 112 Reg. Flam. Substance</b><br>Not Listed |
| <b>CAA 112 Reg. Toxic Substance</b><br>Not Listed   | <b>TSCA Inventory</b><br>All ingredients listed | <b>EEC Flammability</b><br>NA                    | <b>CEPA DSL</b><br>All Ingredients Listed         |
| <b>Proper US DOT Shipping Name</b><br>Not regulated | <b>TDG Classification</b><br>Not regulated      | <b>IATA Classification</b><br>Not regulated      | <b>Limited Quantity</b><br>NA                     |

The information provided above is based upon unused product. Product characteristics may change after processing, requiring further classification.

This Material Safety Data Sheet has been prepared in accordance with the Canadian Controlled Products Regulations and 29CFR1910.1200. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries make any warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. In no event shall Leica Biosystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.