

SECTION 1: Identification

1.1. Identification

Trade name : SPECTRA Hematoxylin
Product code : 3801581, 3801591; 3801586; 3801596

1.2. Recommended use and restrictions on use

Recommended use : H&E Staining System optimized for use with the SPECTRA Staining Instrument
Restrictions on use : Other uses

1.3. Supplier

Leica Biosystems Richmond, Inc
5205 Route 12
Richmond, IL 60071 - USA
T 844-534-2262
LBSNA-LBS-QA@leicabiosystems.com - leicabiosystems.com

1.4. Emergency telephone number

| Organization/Company | Emergency number |
|--|------------------|
| ChemTrec | 800-424-9300 |
| International Calls (call collect) | +1 703-527-3887 |
| Australia 24 Hr Poisons Information Centre | 13 11 26 |

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral) Category 4 Harmful if swallowed
Specific target organ toxicity (repeated exposure) Category 2 May cause damage to organs

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : Harmful if swallowed
May cause damage to organs
Precautionary statements (GHS-US) : Do not breathe mist/vapours/spray.
Wash thoroughly after handling
Do not eat, drink or smoke when using this product
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Get medical advice/attention if you feel unwell
Rinse mouth
Dispose of contents/container in accordance with all local/regional/national/international regulations

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|------------------|---------------------|------|---|
| Ethylene Glycol | (CAS No) 107-21-1 | < 40 | Acute Tox. 4 (Oral), H302 |
| Aluminum Sulfate | (CAS No) 10043-01-3 | < 5 | Skin Corr. 1A, H314 Eye Dam. 1, H318 |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Ethylene Glycol (107-21-1) | | |
|----------------------------|------------------------------------|--|
| ACGIH | ACGIH TWA (ppm) | 25 ppm |
| ACGIH | ACGIH STEL (mg/m ³) | 10 mg/m ³ |
| ACGIH | ACGIH STEL (ppm) | 50 ppm |
| ACGIH | ACGIH Ceiling (mg/m ³) | 100 mg/m ³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value) |
| ACGIH | Remark (ACGIH) | Kidney dam; URT & eye irr |

| Aluminum Sulfate (10043-01-3) | | |
|-------------------------------|--|--|
| Not applicable | | |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Color | : red |
| Odor | : odorless |
| Odor threshold | : No data available |
| pH | : 2 - 3 |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : > ≥ 212 °F |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Specific gravity / density | : 1.06 |
| Solubility | : No data available |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

| SPECTRA Hematoxylin | |
|----------------------------|--------------------------------------|
| ATE US (oral) | 1250 mg/kg body weight |
| Ethylene Glycol (107-21-1) | |
| LD50 oral rat | > 5000 mg/kg (Rat; Literature study) |
| ATE US (oral) | 500 mg/kg body weight |

Skin corrosion/irritation : Not classified

pH: 2 - 3

Serious eye damage/irritation : Not classified

pH: 2 - 3

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : May cause damage to organs .

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| Ethylene Glycol (107-21-1) | |
|-------------------------------|---|
| EC50 Daphnia 1 | > 10000 mg/l (EC50; 24 h) |
| LC50 fish 2 | 40761 mg/l (LC50; 96 h; Salmo gairdneri) |
| Aluminum Sulfate (10043-01-3) | |
| LC50 fish 1 | 214.6 - 228.5 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value) |
| EC50 Daphnia 1 | 242 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value) |
| Threshold limit algae 1 | 3011 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 5 days; Algae; Static system; Fresh water; Experimental value) |
| Threshold limit algae 2 | 602.17 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 5 days; Algae; Static system; Fresh water; Experimental value) |

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12.2. Persistence and degradability

| Ethylene Glycol (107-21-1) | |
|---------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD) | 0.47 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.24 g O ₂ /g substance |
| ThOD | 1.29 g O ₂ /g substance |
| BOD (% of ThOD) | 0.36 |

| Aluminum Sulfate (10043-01-3) | |
|-------------------------------|--|
| Persistence and degradability | Biodegradability: not applicable. Hydrolysis in water. |

12.3. Bioaccumulative potential

| Ethylene Glycol (107-21-1) | |
|-------------------------------|--|
| BCF fish 1 | 10 (BCF; 72 h) |
| BCF other aquatic organisms 1 | 0.21 - 0.6 (BCF) |
| BCF other aquatic organisms 2 | 190 (BCF; 24 h) |
| Log Pow | -1.34 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| Aluminum Sulfate (10043-01-3) | |
|-------------------------------|--|
| BCF fish 1 | 76 - 190 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 60 days; Salmo salar; Flow-through system; Fresh water; Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| Ethylene Glycol (107-21-1) | |
|----------------------------|-------------------|
| Surface tension | 0.048 N/m (20 °C) |

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

Ethylene Glycol (107-21-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

Aluminum Sulfate (10043-01-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

15.2. International regulations

CANADA

Ethylene Glycol (107-21-1)

Listed on the Canadian DSL (Domestic Substances List)

Aluminum Sulfate (10043-01-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

Ethylene Glycol (107-21-1)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) |
|---|---|---|---|----------------------------------|
| No | Yes | No | No | |

Ethylene Glycol (107-21-1)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Aluminum Sulfate (10043-01-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Full text of H-phrases:

| | |
|------|---|
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |

SDS US Leica

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