SECTION 1: Identification : Product identifier and chemical identity

1.1. Product identifier
Trade name : Eosin
Product code : 3801600, 3801601, 3801602, 3801600E, 3801601E, 3801602E

1.2. Other means of identification
No additional information available

1.3. Recommended use of the chemical and restrictions on use
Recommended use : Histological stain
Restrictions on use : Other uses

1.4. Supplier's details
Leica Microsystems Pty Ltd
Suite 2, Level 3, Building A, Talavera Road
Macquarie Park - 2113 Australia

1.5. Emergency phone number

<table>
<thead>
<tr>
<th>Organisation/Company</th>
<th>Emergency number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChemTrec</td>
<td>800-424-9300</td>
</tr>
<tr>
<td>International Calls (call collect)</td>
<td>+1 703-527-3887</td>
</tr>
<tr>
<td>Australia 24 Hr Poisons Information Centre</td>
<td>13 11 26</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical
Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Flammable liquids, Category 1 \( \text{H224} \)

2.2. Label elements
Signal word (GHS-AU) : Danger
Hazard statements (GHS-AU) : H224 - Extremely flammable liquid and vapour
Precautionary statements (GHS-AU) : P210 - Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378 - In case of fire: Use dry chemical, foam, or water spray for extinction.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container in accordance with all local/regional/national/international regulations

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>Compound type</th>
<th>%</th>
<th>Classification according to the model Work Health and Safety Regulations (WHS Regulations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&lt; 70</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>methanol</td>
<td>67-56-1</td>
<td>&lt; 5</td>
<td>Flam. Liq. 2, H225</td>
<td></td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>&lt; 5</td>
<td>Not classified</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor 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: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact: Rinse eyes with water as a precaution.

First-aid measures after ingestion: Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

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: No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe mist/vapours/spray.

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”.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

SECTION 7: Handling and storage, including how the chemical may be safely used

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe mist/vapours/spray. Hygiene measures: Separate working clothes from town clothes. Launder separately. 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

Technical measures: Ground/bond container and receiving equipment.

Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters - exposure standards
Ethanol (64-17-5)

| USA - ACGIH | ACGIH STEL (ppm) | 1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value) |

Isopropanol (67-63-0)

| USA - ACGIH | ACGIH TWA (ppm) | 200 ppm (2-propanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | ACGIH STEL (ppm) | 400 ppm (2-propanol; USA; Short time value; TLV - Adopted Value) |
| USA - ACGIH | Remark (ACGIH) | Eye & URT irr; CNS impair |

methanol (67-56-1)

| USA - ACGIH | ACGIH TWA (ppm) | 200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | ACGIH STEL (ppm) | 250 ppm (Methanol; USA; Short time value; TLV - Adopted Value) |

Exposure limit values for the other components

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : None needed with adequate ventilation. If the occupational exposure limit is exceeded, use an approved organic vapor respirator. Selection of respiratory protection depends on the contaminant type, form, and concentration. Select in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Colour : red
Odour : Alcohol odour
Odour threshold : No data available
pH : 4 - 5
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Boiling point : No data available
Flash point : 64 °F /18 °C
Auto-ignition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative density : No data available
Density : 0.79
Solubility : No data available
Log Pow : No data available
Viscosity : No data available
Explosive properties : No data available
Eosin
Safety Data Sheet
according to the Model Work Health and Safety Regulations

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Minimum ignition energy</td>
<td>No data available</td>
</tr>
<tr>
<td>Fat solubility</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

Reactivity: Highly flammable liquid and vapour.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: No dangerous reactions known under normal conditions of use.
Conditions to avoid: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

Acute toxicity (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified

**Ethanol (64-17-5)**
- LD50 oral rat: 10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
- LD50 dermal rabbit: > 16000 mg/kg (Rabbit; Literature study)

**Isopropanol (67-63-0)**
- LD50 dermal rabbit: 12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
- LC50 inhalation rat (mg/l): 73 mg/l/4h (Rat)

**Methanol (67-56-1)**
- LD50 oral rat: > 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
- LD50 dermal rabbit: 15800 mg/kg (Rabbit; Literature study)
- LC50 inhalation rat (mg/l): 85 mg/l/4h (Rat; Literature study)
- LC50 inhalation rat (ppm): 64000 ppm/4h (Rat; Literature study)

- Skin corrosion/irritation: Not classified
- pH: 4 - 5
- Serious eye damage/irritation: Not classified
- pH: 4 - 5
- Respiratory or skin sensitisation: Not classified
- Germ cell mutagenicity: Not classified
- Carcinogenicity: Not classified
- Reproductive toxicity: Not classified
- STOT-single exposure: Not classified
- STOT-repeated exposure: Not classified
- Aspiration hazard: Not classified

**Eosin**
Density: 0.79

**SECTION 12: Ecological information**

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request.

12.1. **Ecotoxicity**

Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Not classified
12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substances</th>
<th>Persistence and degradability</th>
<th>Biochemical oxygen demand (BOD)</th>
<th>Chemical oxygen demand (COD)</th>
<th>ThOD</th>
<th>BOD (% of ThOD)</th>
<th>Log Pow</th>
<th>Log Koc</th>
<th>BCF fish 1</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.</td>
<td>0.8 - 0.967 g O₂/g substance</td>
<td>1.7 g O₂/g substance</td>
<td>2.1 g O₂/g substance</td>
<td>0.43</td>
<td>See section 12.1 on ecotoxicology</td>
<td>-0.31</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
</tr>
<tr>
<td>Isopropanol (67-63-0)</td>
<td>Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.</td>
<td>1.19 g O₂/g substance</td>
<td>2.23 g O₂/g substance</td>
<td>2.4 g O₂/g substance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td>Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.</td>
<td>0.6 - 1.12 g O₂/g substance</td>
<td>1.42 g O₂/g substance</td>
<td>1.5 g O₂/g substance</td>
<td>0.8 (Literature study)</td>
<td></td>
<td></td>
<td></td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substances</th>
<th>BCF fish 1</th>
<th>Log Pow</th>
<th>Log Koc</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
<tr>
<td>Isopropanol (67-63-0)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Substances</th>
<th>Surface tension</th>
<th>Log Pow</th>
<th>Log Koc</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>0.022 N/m (20 °C)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td></td>
</tr>
<tr>
<td>Isopropanol (67-63-0)</td>
<td>0.021 N/m (25 °C)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td></td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td>0.023 N/m (20 °C)</td>
<td>See section 12.1 on ecotoxicology</td>
<td>See section 12.1 on ecotoxicology</td>
<td></td>
</tr>
</tbody>
</table>

12.5. Other adverse effects

| Ozone | Not classified |
| Other adverse effects | No additional information available |

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector’s sorting instructions.
**Eosin**  
Safety Data Sheet  
according to the Model Work Health and Safety Regulations

### SECTION 14: Transport information

| 14.1. UN number |  |
|-----------------|-----------------|-----------------|-----------------|
| UN-No. (IMDG)   | : 1986          | UN-No. (IATA)   | : 1986          |

| 14.2. Proper Shipping Name - Addition |  |
|--------------------------------------|-----------------|-----------------|-----------------|
| Proper Shipping Name (IMDG)          | : ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. | Proper Shipping Name (IATA) | : Alcohols, flammable, toxic, n.o.s. |

| 14.3. Transport hazard class(es) |  |
|----------------------------------|-----------------|-----------------|-----------------|
| IMDG Transport hazard class(es) (IMDG) | : 3 (6.1) | Danger labels (IMDG) | : 3, 6.1 | ![Hazard Labels](image) |
| IATA Transport hazard class(es) (IATA) | : 3 (6.1) | Hazard labels (IATA) | : 3, 6.1 | ![Hazard Labels](image) |

| 14.4. Packing group |  |
|---------------------|-----------------|-----------------|-----------------|
| Packing group (IMDG) | : II            | Packing group (IATA) | : II         |

| 14.5. Environmental hazards |  |
|-----------------------------|-----------------|-----------------|-----------------|
| Marine pollutant            | : No            |                 |                 |

| 14.6. Special precautions for user |  |
|-----------------------------------|-----------------|-----------------|-----------------|
| Specific storage requirement      | : No data available | Shock sensitivity | : No data available |

| 14.7. Additional information |  |
|-------------------------------|-----------------|-----------------|-----------------|
| Other information             | : No supplementary information available |                 |                 |

**Transport by road and rail**  
Not applicable

**Transport by sea**  

| UN-No. (IMDG) | : 1986            | Special provisions (IMDG) | : 274          |
| Limited quantities (IMDG) | : 1 L            | Excepted quantities (IMDG) | : E2          |
| Packing instructions (IMDG) | : P001          | IBC packing instructions (IMDG) | : IBC02       |
| Tank instructions (IMDG) | : T11            | Tank special provisions (IMDG) | : TP2, TP27 |
| EmS-No. (Fire) | : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS | EmS-No. (Spillage) | : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS |
| Stowage category (IMDG) | : B            | Properties and observations (IMDG) | : Toxic if swallowed, by skin contact or by inhalation. |

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Air transport

UN-No. (IATA) : 1986
PCA Exempted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA Limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 352
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3
ERG code (IATA) : 3HP

14.8. Hazchem or Emergency Action Code
Hazchem code : Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
No additional information available

15.2. International agreements
No additional information available

SECTION 16: Any other relevant information

Revision date : 28/11/2018
Classification:
Flam. Liq. 1 H224

Full text of H-statements:

Flam. Liq. 1 Flammable liquids, Category 1
Flam. Liq. 2 Flammable liquids, Category 2
H224 Extremely flammable liquid and vapour
H225 Highly flammable liquid and vapour

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.