SECTION 1: Identification

1.1. Identification
Product form: Mixtures
Product name: Methylene Blue, 1% in Ethanol
Product code: LC16920

1.2. Recommended use and restrictions on use
Use of the substance/mixture: For laboratory and manufacturing use only.
Recommended use: Laboratory chemicals
Restrictions on use: Not for food, drug or household use

1.3. Supplier
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number: CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Flammable liquids
Category 2
Acute toxicity (oral)
Category 4
Carcinogenicity Category
Reproductive toxicity
Specific target organ toxicity (single exposure)
Category 1

H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to organs (central nervous system, optic nerve, liver, kidneys)

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
Hazard pictograms (GHS-US): GHS02, GHS07, GHS08

Signal word (GHS-US): Danger
Hazard statements (GHS-US): H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to organs (central nervous system, optic nerve, liver, kidneys)

Precautionary statements (GHS-US): P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
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 electrical, ventilating, lighting equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe mist, vapors, spray
P264 - Wash exposed skin thoroughly after handling
Methylene Blue, 1% in Ethanol
Safety Data Sheet

accordance with Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves, eye protection
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P308+P313 - IF exposed or concerned: Get medical advice/attention
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), extinguishing powder to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification: None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>(CAS-No.) 64-17-5</td>
<td>89.1</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Carc. 1A, H350</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Repr. 2, H361</td>
</tr>
<tr>
<td>Methanol</td>
<td>(CAS-No.) 67-56-1</td>
<td>4.95</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Dermal), H311</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Inhalation), H331</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 1, H370</td>
</tr>
<tr>
<td>Isopropyl Alcohol (2-Propanol)</td>
<td>(CAS-No.) 67-63-0</td>
<td>4.95</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td>Methylene Blue</td>
<td>(CAS-No.) 61-73-4</td>
<td>1</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 2, H401</td>
</tr>
</tbody>
</table>

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: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position 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: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/effects: Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/effects after inhalation: Dizziness. Headache.

Symptoms/effects after skin contact: May stain the skin. Visual disturbances.

Symptoms/effects after eye contact: May cause slight irritation.


4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


01/09/2018 EN (English US) 2/10
Methylene Blue, 1% in Ethanol
Safety Data Sheet

Unsuitable extinguishing media: Do not use a heavy water stream.

5. Specific hazards arising from the chemical

5.2. Fire hazard: Highly flammable liquid and vapor.
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. General measures: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection. Avoid breathing mist, spray.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapors, spray.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/… equipment.
Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Heat sources, Ignition sources, incompatible materials. Keep in fireproof place. Keep container tightly closed.
Incompatible materials: Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methylene Blue (61-73-4)
Not applicable

Ethanol (64-17-5)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>ACGIH STEL (ppm)</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>1900 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value)
Methylene Blue, 1% in Ethanol
Safety Data Sheet

<table>
<thead>
<tr>
<th>Ethanol (64-17-5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methanol (67-56-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (ppm)</td>
</tr>
<tr>
<td>ACGIH</td>
<td>ACGIH STEL (ppm)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>Remark (NIOSH)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isopropyl Alcohol (2-Propanol) (67-63-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (ppm)</td>
</tr>
<tr>
<td>ACGIH</td>
<td>ACGIH STEL (ppm)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (ppm)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (STEL) (ppm)</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses.

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Chemical resistant apron
Respiratory protection:
Respiratory protection not required in normal conditions

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Color: dark blue
Odor: Alcohol odour
Odor threshold: 100 ppm
pH: No data available
Melting point: -115 °C
Freezing point: No data available
Boiling point: 78 °C
Flash point: 13 °C
Relative evaporation rate (butyl acetate=1): 2.4
Relative evaporation rate (ether=1): 8.3
Flammability (solid, gas): Highly flammable liquid and vapor.
Vapor pressure: 59 hPa
Vapor pressure at 50 °C: 300 hPa
Relative vapor density at 20 °C: 1.6
Relative density: 0.79
Log Pow: No data available
Auto-ignition temperature: 363 °C
Decomposition temperature: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: 0.0012 Pa.s (20°C)
Explosion limits: 3.3 - 19 vol %
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
No additional information available

10.2. Chemical stability
Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide. May release flammable gases.
# SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

### Likely routes of exposure
- Inhalation; Skin and eye contact

### Acute toxicity
- Oral: Harmful if swallowed.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Route</th>
<th>LC50 Inhalation (mg/l) (Rat)</th>
<th>ATD US (oral)</th>
<th>LD50 Oral rat (mg/kg) (Rat)</th>
<th>ATD US (oral)</th>
<th>LD50 dermal rabbit (mg/kg) (Rabbit)</th>
<th>ATD US (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue, 1% in Ethanol</td>
<td></td>
<td></td>
<td>1986.19760983 mg/kg body weight</td>
<td>1180 mg/kg (Rat)</td>
<td>1180 mg/kg body weight</td>
<td>10740 mg/kg (Rat; Experimental value; Rabbit; Literature study)</td>
<td>12870 mg/kg body weight</td>
</tr>
<tr>
<td>Ethanol (64-17-5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isopropyl Alcohol (2-Propanol) (67-63-0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation
- Not classified

### Serious eye damage/irritation
- Not classified

### Respiratory or skin sensitization
- Not classified

### Germ cell mutagenicity
- Not classified

### Carcinogenicity
- May cause cancer.

<table>
<thead>
<tr>
<th>Compound</th>
<th>IARC group</th>
<th>Hazard Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>1 - Carcinogenic to humans</td>
<td></td>
</tr>
<tr>
<td>Isopropyl Alcohol (2-Propanol) (67-63-0)</td>
<td>3 - Not classifiable</td>
<td></td>
</tr>
</tbody>
</table>

### Reproductive toxicity
- Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity – single exposure
- Causes damage to organs (central nervous system, optic nerve, liver, kidneys).

### Specific target organ toxicity – repeated exposure
- Not classified

### Aspiration hazard
- Not classified

### Potential Adverse human health effects and symptoms
- Harmful if swallowed.

### Symptoms/effects after inhalation
- Dizziness. Headache.

### Symptoms/effects after skin contact
- May stain the skin. Visual disturbances.

### Symptoms/effects after eye contact
- May cause slight irritation.

### Symptoms/effects after ingestion
# Methylene Blue, 1% in Ethanol

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 12: Ecological information

### 12.1. Toxicity

**Methylene Blue (61-73-4)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>2.26 mg/l (EC50; 48 h)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>18 mg/l (LC50; 96 h)</td>
</tr>
</tbody>
</table>

**Ethanol (64-17-5)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)</td>
</tr>
</tbody>
</table>

**Methanol (67-56-1)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>10800 mg/l (LC50; 96 h; Salmo gairdneri)</td>
</tr>
</tbody>
</table>

**Isopropyl Alcohol (2-Propanol) (67-63-0)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>13299 mg/l (EC50; Other; 48 h; Daphnia magna)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

**Methylene Blue, 1% in Ethanol**

Persistence and degradability: Not established.

**Methylene Blue (61-73-4)**

Persistence and degradability: Biodegradability in water: no data available. Photodegradation in the air.

**Ethanol (64-17-5)**


Biochemical oxygen demand (BOD): 0.8 - 0.967 g O₂/g substance

Chemical oxygen demand (COD): 1.7 g O₂/g substance

ThOD: 2.1 g O₂/g substance

BOD (% of ThOD): 0.43

**Methanol (67-56-1)**


Biochemical oxygen demand (BOD): 0.6 - 1.12 g O₂/g substance

Chemical oxygen demand (COD): 1.42 g O₂/g substance

ThOD: 1.5 g O₂/g substance

BOD (% of ThOD): 0.8 (Literature study)

**Isopropyl Alcohol (2-Propanol) (67-63-0)**


Biochemical oxygen demand (BOD): 1.19 g O₂/g substance

Chemical oxygen demand (COD): 2.23 g O₂/g substance

ThOD: 2.4 g O₂/g substance

### 12.3. Bioaccumulative potential

**Methylene Blue, 1% in Ethanol**

Bioaccumulative potential: Not established.

**Methylene Blue (61-73-4)**

Log Pow: 5.85 (Estimated value)

Bioaccumulative potential: Not bioaccumulative.
## Methylene Blue, 1% in Ethanol

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanol (64-17-5)</strong></td>
<td></td>
</tr>
<tr>
<td>BCF fish 1</td>
<td>1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-0.31 (Experimental value)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
<tr>
<td><strong>Methanol (67-56-1)</strong></td>
<td></td>
</tr>
<tr>
<td>BCF fish 1</td>
<td>&lt; 10 (BCF; 72 h; Leuciscus idus)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-0.77 (Experimental value; Other)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
<tr>
<td><strong>Isopropyl Alcohol (2-Propanol) (67-63-0)</strong></td>
<td></td>
</tr>
<tr>
<td>Log Pow</td>
<td>0.05 (Weight of evidence approach; Other; 25 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanol (64-17-5)</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension</td>
<td>0.022 N/m (20 °C)</td>
</tr>
<tr>
<td>Log Koc</td>
<td>Koc,PCKOCWIN v1.66; 1; Read-across</td>
</tr>
<tr>
<td><strong>Methanol (67-56-1)</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension</td>
<td>0.023 N/m (20 °C)</td>
</tr>
<tr>
<td>Log Koc</td>
<td>Koc,PCKOCWIN v1.66; 1; Calculated value</td>
</tr>
<tr>
<td><strong>Isopropyl Alcohol (2-Propanol) (67-63-0)</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension</td>
<td>0.021 N/m (25 °C)</td>
</tr>
</tbody>
</table>

### 12.5. Other adverse effects

Effect on the global warming | No known effects from this product. |
GWPmix comment | No known effects from this product. |
Other information | Avoid release to the environment. |

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste disposal recommendations</td>
<td>Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.</td>
</tr>
<tr>
<td>Additional information</td>
<td>Handle empty containers with care because residual vapors are flammable.</td>
</tr>
<tr>
<td>Ecology - waste materials</td>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

**Department of Transportation (DOT)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport document description</td>
<td>UN1170 Ethanol solutions, 3, II</td>
</tr>
<tr>
<td>UN-No.(DOT)</td>
<td>UN1170</td>
</tr>
<tr>
<td>Proper Shipping Name (DOT)</td>
<td>Ethanol solutions</td>
</tr>
<tr>
<td>Transport hazard class(es) (DOT)</td>
<td>3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120</td>
</tr>
<tr>
<td>Packing group (DOT)</td>
<td>II - Medium Danger</td>
</tr>
<tr>
<td>Hazard labels (DOT)</td>
<td>3 - Flammable liquid</td>
</tr>
</tbody>
</table>

**DOT Packaging Non Bulk (49 CFR 173.xxx)** | 202 |
**DOT Packaging Bulk (49 CFR 173.xxx)** | 242 |
DOT Special Provisions (49 CFR 172.102) 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T4 - 2.65 178.274(d)(2) Normal............. 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) 4b;150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) 60 L

DOT Vessel Stowage Location A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Other information No supplementary information available.

SECTION 15: Regulatory information

15.1. US Federal regulations

Methylene Blue, 1% in Ethanol

SARA Section 311/312 Hazard Classes
Immediate (acute) health hazard
Fire hazard
Delayed (chronic) health hazard

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS-No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>4.95%</td>
</tr>
<tr>
<td>Isopropyl Alcohol (2-Propanol)</td>
<td>67-63-0</td>
<td>4.95%</td>
</tr>
</tbody>
</table>

Methanol (67-56-1)

RQ (Reportable quantity, section 304 of EPA’s List of Lists) 5000 lb

SARA Section 311/312 Hazard Classes Immediate (acute) health hazard
Fire hazard

15.2. International regulations

CANADA

Methylene Blue (61-73-4)
Listed on the Canadian DSL (Domestic Substances List)

Methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

15.3. US State regulations

Methylene Blue (61-73-4)
Listed on the Canadian IDL (Ingredient Disclosure List)

Ethanol (64-17-5)
Listed on IARC (International Agency for Research on Cancer)
California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

### Methanol (67-56-1)

<table>
<thead>
<tr>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significant risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### SECTION 16: Other information

Revision date : 01/09/2018

Other information : None.

Full text of H-phares: see section 16:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>H370</td>
<td>Causes damage to organs</td>
</tr>
<tr>
<td>H401</td>
<td>Toxic to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F, as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US LabChem

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.