**SECTION 1: Identification**

1. **Identification**
   - Product form: Mixtures
   - Product name: Methylene Blue Reagent, for Surfactants
   - Product code: LC16970

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

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

4. **Emergency telephone number**
   - Emergency number: CHEMTREC: 1-800-424-9300 or +1-703-741-5970

**SECTION 2: Hazard(s) identification**

1. **Classification of the substance or mixture**
   - GHS-US classification: Not classified

2. **GHS Label elements, including precautionary statements**
   - Not classified as a hazardous chemical.
   - Other hazards not contributing to the classification: None under normal conditions.

**SECTION 3: Composition/Information on ingredients**

1. **Substances**
   - Not applicable

2. **Mixtures**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>94.967</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium Phosphate, Monobasic, Anhydrous</td>
<td>(CAS-No.) 7558-80-7</td>
<td>4.35</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sulfuric Acid</td>
<td>(CAS-No.) 7664-93-9</td>
<td>0.68</td>
<td>Skin Corr. 1A, H314  Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Methylene Blue</td>
<td>(CAS-No.) 61-73-4</td>
<td>0.003</td>
<td>Acute Tox. 4 (Oral), H302 Aquatic Acute 2, H401</td>
</tr>
</tbody>
</table>

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

**SECTION 4: First-aid measures**

1. **Description of first aid measures**
   - First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
   - First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest.
   - First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
   - First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
   - First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

5.2. Specific hazards arising from the chemical
No additional information available

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. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Protective equipment : Safety glasses. Gloves.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment : Equip cleanup crew with proper protection.
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
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.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : Keep container closed when not in use.
Incompatible products : None known.
Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

<table>
<thead>
<tr>
<th>Compound</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue (61-73-4)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Sulfuric Acid (7664-93-9)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>0.2 mg/m³ (Thoracic fraction)</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>
Methylene Blue Reagent, for Surfactants
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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Sulfuric Acid (7664-93-9)</th>
<th>IDLH</th>
<th>US IDLH (mg/m³)</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IDLH</td>
<td>15 mg/m³</td>
<td>NIOSH</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL</td>
<td>1 mg/m³</td>
<td></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:

- Safety glasses.

Hand protection:
- Wear protective gloves.

Eye protection:
- Chemical goggles or safety glasses

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: Blue
- Odor: None.
- Odor threshold: No data available
- pH: No data available
- Melting point: No data available
- Freezing point: No data available
- Boiling point: No data available
- Flash point: No data available
- Relative evaporation rate (butyl acetate=1): No data available
- Flammability (solid, gas): Non flammable.
- Vapor pressure: No data available
- Relative vapor density at 20 °C: No data available
- Relative density: No data available
- Specific gravity / density: 1 g/ml
- Solubility: Soluble in water.
- Log Pow: No data available
- Auto-ignition temperature: No data available
- Decomposition temperature: No data available
- Viscosity, kinematic: No data available
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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
No additional information available

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Not established.

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

10.5. Incompatible materials
No data available.

10.6. Hazardous decomposition products
Sulfur compounds. Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Likely routes of exposure | Skin and eye contact |
| Acute toxicity | Not classified |

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

| LD50 oral rat | 1180 mg/kg (Rat) |
| ATE US (oral) | 1180 mg/kg body weight |

**Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)**

| LD50 oral rat | 8290 mg/kg |
| ATE US (oral) | 8290 mg/kg body weight |

**Sulfuric Acid (7664-93-9)**

| LD50 oral rat | 2140 mg/kg body weight (Rat, Experimental value) |
| ATE US (oral) | 2140 mg/kg body weight |

**Water (7732-18-5)**

| LD50 oral rat | ≥ 90000 mg/kg |
| ATE US (oral) | 90000 mg/kg body weight |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

**Sulfuric Acid (7664-93-9)**

Additional information Strong inorganic acid mists containing sulfuric acid are carcinogenic to humans
National Toxicology Program (NTP) Status 2 - Known Human Carcinogens
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
**Methylene Blue Reagent, for Surfactants**

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**Aspiration hazard**: Not classified

**Potential Adverse human health effects and symptoms**: Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Chemical</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue (61-73-4)</td>
<td>18 mg/l (96 h, Mystus vittatus)</td>
<td>2.26 mg/l (48 h, Daphnia magna)</td>
</tr>
<tr>
<td>Sulfuric Acid (7664-93-9)</td>
<td>42 mg/l (96 h, Gambusia affinis)</td>
<td>29 mg/l (24 h, Daphnia magna)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue (61-73-4)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Sulfuric Acid (7664-93-9)</td>
<td>Biodegradability in water: no data available.</td>
</tr>
<tr>
<td>Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)</td>
<td>Bioaccumulative potential: Not bioaccumulative.</td>
</tr>
<tr>
<td>Sulfuric Acid (7664-93-9)</td>
<td>Log Pow = -2.2 (Estimated value)</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Persistence and degradability: Not established.</td>
</tr>
</tbody>
</table>

#### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Blue (61-73-4)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)</td>
<td>Not bioaccumulative.</td>
</tr>
<tr>
<td>Sulfuric Acid (7664-93-9)</td>
<td>Bioaccumulative potential: Not established.</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Bioaccumulative potential: Not established.</td>
</tr>
</tbody>
</table>

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

**Other information**: Avoid release to the environment.
SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

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>Sulfuric Acid</th>
<th>CAS-No. 7664-93-9</th>
<th>0.68%</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ (Reportable quantity, section 304 of EPA’s List of Lists)</td>
<td>1000 lb</td>
<td></td>
</tr>
<tr>
<td>SARA Section 302 Threshold Planning Quantity (TPQ)</td>
<td>1000 lb</td>
<td></td>
</tr>
<tr>
<td>SARA Section 311/312 Hazard Classes</td>
<td>Health hazard - Skin corrosion or irritation Health hazard - Serious eye damage or eye irritation</td>
<td></td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

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

Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations

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

Sodium Phosphate, Monobasic, Anhydrous (7558-80-7)
Not listed on the Canadian IDL (Ingredient Disclosure List)

Sulfuric Acid (7664-93-9)
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations
No additional information available

SECTION 16: Other information

Revision date: 05/15/2018
Other information: None.
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Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H401</td>
<td>Toxic to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

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

Hazard Rating
Health: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability: 0 Minimal Hazard - Materials that will not burn
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: B
B - Safety glasses, Gloves

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