1 Identification

· Product identifier
  · Trade name: Methylene Blue Solution
    \[1 \text{ ml} = 0.01 \text{ ME (AF Grade)}\]
  · Article number: 200-04

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    OFI Testing Equipment Inc.
    11302 Steeplecrest Dr.
    Houston, TX 77065
    (877) 837-8683
  · Information department: techservices@ofite.com
  · Emergency telephone number:
    INFOTRAC USA - CANADA: 1-800-535-5053
    INTERNATIONAL: 1-352-323-3500

2 Hazard(s) identification

· Classification of the substance or mixture
  The product is not classified according to the Globally Harmonized System (GHS).

· Label elements
  · GHS label elements: Not Applicable
  · Hazard pictograms: Not Applicable
  · Signal word: Not Applicable
  · Hazard statements: Not Applicable
  · Precautionary statements
    If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
    IF ON SKIN: Wash with plenty of water.
    Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    \[\begin{array}{ccc}
    \text{Health} & 2 \\
    \text{Fire} & 1 \\
    \text{Reactivity} & 0
    \end{array}\]
  · HMIS-ratings (scale 0 - 4)
    \[\begin{array}{ccc}
    \text{HEALTH} & 2 \\
    \text{FIRE} & 1 \\
    \text{REACTIVITY} & 0
    \end{array}\]

· Other hazards
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
  · Description: Mixture of the substances listed below with nonhazardous additions.
Trade name: Methylene Blue Solution
1 ml = 0.01 ME (AF Grade)

- Dangerous components:
  - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 35.809%

- Table of Nonhazardous Ingredients
  - CAS: 7220-79-3 Methylene Blue 0.318%
  - CAS: 7732-18-5 Water 63.873%

4 First-aid measures

- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
  - PAC-1:
    - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 30 mg/m³
  - PAC-2:
    - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 1,300 mg/m³
  - PAC-3:
    - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 7,900 mg/m³
7 Handling and storage

- **Handling:**
- **Precautions for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** No special requirements.
  - **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

<table>
<thead>
<tr>
<th>CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TWA</strong> Short-term value: 10 mg/m³</td>
</tr>
<tr>
<td><strong>WEEL</strong> Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - The usual precautionary measures for handling chemicals should be followed.
  - **Breathing equipment:** Not required.
  - **Protection of hands:**

  **Protective gloves**

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  - The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Goggles recommended during refilling.
- **Body protection:** Protective work clothing
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:** Liquid
    - **Color:** Dark blue
    - **Odor:** Odorless
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** 101 °C (214 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

- **Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with**
  - **Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.

- **Solvent content:**
  - **Organic solvents:** 0.0 %
  - **Water:** 63.9 %
  - **VOC content:** 0.0 g/l / 0.00 lb/gl

- **Other information**
  - No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
  - No further relevant information available.

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
Trade name: Methylene Blue Solution  
1 ml = 0.01 ME (AF Grade)

- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

## 11 Toxicological information

### Information on toxicological effects

### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Irritation of skin LD50</td>
</tr>
<tr>
<td>Irritation of eyes LD50</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation (Human)</td>
</tr>
<tr>
<td>Eye damage/eye irritation (rabbit)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product is not subject to classification according to internally approved calculation methods for preparations:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### Carcinogenic categories

- IARC (International Agency for Research on Cancer)
  None of the ingredients is listed.
- NTP (National Toxicology Program)
  None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

## 12 Ecological information

### Toxicity

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: Not further relevant information available.
  - Additional ecological information:
  - General notes: Not known to be hazardous to water.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
Trade name: Methylene Blue Solution  
1 ml = 0.01 ME (AF Grade)

- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods:
  - Recommendation: Smaller quantities can be disposed of with household waste.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number:
  - DOT, ADN, IMDG, IATA: Not regulated

- UN proper shipping name:
  - DOT, ADN, IATA: Not regulated
  - IMDG: Not regulated

- Transport hazard class(es):
  - DOT, ADN, IMDG, IATA: Not regulated

- Packing group:
  - DOT, IMDG, IATA: Not regulated

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user: Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

- UN "Model Regulation": Not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture:
  - Sara:
    - Section 355 (extremely hazardous substances):
      None of the ingredients is listed.
    - Section 313 (Specific toxic chemical listings):
      None of the ingredients is listed.

- TSCA (Toxic Substances Control Act):
  CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)

- Proposition 65
  - Chemicals known to cause cancer:
    None of the ingredients is listed.
Trade name: Methylene Blue Solution
1 ml = 0.01 ME (AF Grade)

- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:
  None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:
  None of the ingredients is listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

- GHS label elements: Not Applicable
- Hazard pictograms: Not Applicable
- Signal word: Not Applicable
- Hazard statements: Not Applicable
- Precautionary statements
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  IF ON SKIN: Wash with plenty of water.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environment protection department.
- Contact:
- Date of preparation / last revision
  Creation date for SDS 07-15-2014  LS
  Revision 0.1, 07-03-2017: Reviewed SDS. STN 07/03/2017 / -
- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative

(Contd. on page 8)
Trade name: Methylene Blue Solution
1 ml = 0.01 ME (AF Grade)

NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit