1 Identification

· Product identifier
· Trade name: Methylene Blue Solution
  1 ml = 0.01 ME (AF Grade)
· Article number: 200-02

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)
    Health = 2
    Fire = 1
    Reactivity = 0
  · HMIS-ratings (scale 0 - 4)
    HEALTH 2
    FIRE 1
    REACTIVITY 0

· 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

- Description of 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>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)</td>
</tr>
<tr>
<td>TWA</td>
</tr>
<tr>
<td>WEEL</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 can not be calculated in advance and has therefore to be checked prior to the application.

  **Penetration time of glove material**

  The exact break through 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: |
| Form: 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
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- 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:
      
      | CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)  |
      |-----------------|-----------------|
      | Oral LD50       | Dermal LD50     |
      | 20000 mg/kg (rat)| 20800 mg/kg (rabbit) |
      | Irritation of skin Skin Corrosion/Irritation |
      |    (Human)      |    (rabbit)     |
      | Irritation of eyes Eye damage/eye irritation |
      
  - 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: No 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.
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
  - Class: 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 MARPOL 73/78 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.
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- 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)
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