1 Identification

- Product identifier
  - Trade name: Methylene Blue Solution
    1 ml = 0.01 ME (AF Grade)
  - Article number: 200-06
  - 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) 1300 mg/m³

  - PAC-3:
    - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 7900 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**
  
- **Components with limit values that require monitoring at the workplace:**
  
<table>
<thead>
<tr>
<th>CAS: 57-55-6</th>
<th>1,2 Propanediol (Propylene Glycol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>Short-term value: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>weel</td>
</tr>
<tr>
<td>WEEL</td>
<td>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 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:
    - Odor: Odorless
  - Odor threshold:
    - Odor threshold: Not determined.
  - pH-value:
    - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range:
    - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range:
    - Boiling point/Boiling range: Undetermined.
- Flash point:
  - Flash point: 101 °C (214 °F)
- Flammability (solid, gaseous):
  - Flammability (solid, gaseous): Not applicable.
- Ignition temperature:
  - Decomposition temperature:
    - Decomposition temperature: Not determined.
  - Auto igniting:
    - Auto igniting: Product is not selfigniting.
  - Danger of explosion:
    - Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower:
    - Lower: Not determined.
  - Upper:
    - Upper: Not determined.
- Vapor pressure at 20 °C (68 °F):
  - Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)
- Density:
  - Density: Not determined.
- Relative density:
  - Relative density: Not determined.
- Vapor density:
  - Vapor density: Not determined.
- Evaporation rate:
  - Evaporation rate: Not determined.
- Solubility in / Miscibility with Water:
  - Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):
  - Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic:
    - Dynamic: Not determined.
  - Kinematic:
    - Kinematic: Not determined.
- Solvent content:
  - Organic solvents:
    - Organic solvents: 0.0 %
  - Water:
    - Water: 63.9 %
  - VOC content:
    - VOC content: 0.0 g/l / 0.00 lb/gl
- Other information:
  - 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:
  |
  | CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) |
  | Oral LD50 | Dermal LD50 |
  | Skin Corrosion/Irritation (Human) | Eye damage/eye irritation (rabbit) |
  | 20000 mg/kg (rat) | 20800 mg/kg (rabbit) |

- 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.
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
  - 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 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
    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
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
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