1 Identification

- **Product identifier**
  - **Trade name**: Versenate Hardness Titrating Solution AF Grade 1 ml = 40 mg/L Ca & Mg
  - **Article number**: 205-01
- **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**
    - Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Classification system**
    - **NFPA ratings (scale 0 - 4)**
      Health = 1
      Fire = 1
      Reactivity = 0
    - **HMIS-ratings (scale 0 - 4)**
      HEALTH 1
      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.
  - **Dangerous components**:
    - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 35.809%
    (Contd. on page 2)
Trade name: Versenate Hardness Titrating  
Solution AF Grade 1 ml = 40 mg/L Ca & Mg

Table of Nonhazardous Ingredients
<table>
<thead>
<tr>
<th>CAS:</th>
<th>Ingredient</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6381-92-6</td>
<td>Ethylenedinitrilotetraacetic acid, disodium salt</td>
<td>0.037%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>64.154%</td>
</tr>
</tbody>
</table>

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: Generally the product does not irritate the skin.
  · After eye contact: Rinse opened eye for several minutes under running water.
  · 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
    CAS: 6381-92-6 Ethylenedinitrilotetraacetic acid, disodium salt 30 mg/m3
  · PAC-2:
    CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 1,300 mg/m3
    CAS: 6381-92-6 Ethylenedinitrilotetraacetic acid, disodium salt 330 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**
- **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 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:**
    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 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: Colorless
  - 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 at 20 °C (68 °F): 1.02732 g/cm³ (8.573 lbs/gal)
- 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: 64.2 %
  - 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.
· **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>Endpoint</th>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td>20000 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td>20800 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Irritation of skin</td>
<td></td>
<td>Skin Corrosion/Irritation (Human)</td>
</tr>
<tr>
<td>Irritation of eyes</td>
<td></td>
<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** 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.
Safety Data Sheet
acc. to OSHA HCS

Trade name: Versenate Hardness Titrating Solution AF Grade 1 ml = 40 mg/L Ca & Mg

· 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.

· Transport/Additional information:
  · DOT
    · Remarks: Not Regulated

  · IMDG
    · Remarks: Not Regulated

  · IATA
    · Remarks: Not Regulated

  · 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.
Trade name: Versenate Hardness Titrating
Solution AF Grade 1 ml = 40 mg/L Ca & Mg

- **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.
  - **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**
    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**
  Revision 0.1, 05-01-2015: revised to correct emergency contact and information dept contact. STN
  Creation date for SDS 07-15-2014 LS
  Revision 0.2, 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
Trade name: Versenate Hardness Titrating
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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
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit