1 Identification

- Product identifier
  - Trade name: Versenate Hardness Titrating Solution AF Grade 1 ml = 40 mg/L Ca & Mg
  - Article number: 205-07
- 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    Health = 1
    FIRE 1     Fire = 1
   REACTIVITY 0 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%
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>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6381-92-6</td>
<td>Ethylenedinitrilotriacetic 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 Ethylenedinitrilotriacetic 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 Ethylenedinitrilotriacetic acid, disodium salt 330 mg/m3

- PAC-3:
  - CAS: 57-55-6 1,2 Propanediol (Propylene Glycol) 7,900 mg/m3
Safety Data Sheet
acc. to OSHA HCS

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

CAS: 6381-92-6 Ethylenedinitrilotetraacetic acid, disodium salt 2,000 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:
  CAS: 57-55-6 1,2 Propanediol (Propylene Glycol)

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>Short-term value: 10 mg/m³ 1,2 Propanediol (Propylene Glycol)</td>
</tr>
<tr>
<td></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 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

(Contd. on page 4)
### 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.
Trade name: Versenate Hardness Titrating
Solution AF Grade 1 ml = 40 mg/L Ca & Mg

- 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:

<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>Skin Corrosion/Irritation Eye damage/eye irritation</td>
</tr>
<tr>
<td>20000 mg/kg (rat)</td>
</tr>
<tr>
<td>20800 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(Human)</td>
</tr>
<tr>
<td>(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.
Trade name: Versenate Hardness Titrating Solution AF Grade 1 ml = 40 mg/L Ca & Mg

13 Disposal considerations

- Other adverse effects No further relevant information available.

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
  - ELINCS: European Inventory of Existing Commercial Chemical Substances
  - EINECS: European List of Notified Chemical Substances

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

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

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