1. PRODUCT AND COMPANY IDENTIFICATION

EVERON SMT REPLENISHER I

Revision date: 03/12/2007

Supplier
Rohm and Haas Electronic Materials LLC
455 Forest Street
Marlborough, MA 01752 United States of America

For non-emergency information contact: 508-481-7950

Emergency telephone number
Chemtrec 800-424-9300
Rohm and Haas Emergency 215-592-3000

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt; 75.0 %</td>
</tr>
<tr>
<td>Nickel Compound</td>
<td></td>
<td>&lt; 20.0 %</td>
</tr>
<tr>
<td>Inorganic and organic acids</td>
<td></td>
<td>&lt; 5.0 %</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance
Form liquid
Colour green
Odour No Data

Hazard Summary

WARNING!

Acidic liquid and vapor.
Incidental contact may cause redness or other transient effects
Contains a material which may cause cancer.
May cause allergic respiratory reaction and/or skin reaction.

Potential Health Effects

Primary Routes of Entry: Inhalation, ingestion, eye and skin contact.

Eyes: May cause pain, transient irritation and superficial corneal effects.

Skin: Material may cause irritation.
Prolonged or repeated contact may cause itching and soreness and possible sensitization.

Ingestion: Swallowing may have the following effects:
irritation of mouth, throat and digestive tract

**Inhalation:** Inhalation may have the following effects:
irritation of nose, throat and respiratory tract

**Target Organs:**
Eye
Respiratory System
Skin

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Nickel Compound</th>
<th>IARC</th>
<th>NIOSH</th>
<th>NTP CARC</th>
<th>US CA CRT</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel Compound</td>
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<td>Nickel Compound</td>
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<td></td>
</tr>
</tbody>
</table>

**4. FIRST AID MEASURES**

**Inhalation:** Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

**Skin contact:** Wash skin with water. Continue washing for at least 15 minutes. Obtain medical attention if blistering occurs or redness persists.

**Eye contact:** Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Ingestion:** Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Immediate medical attention is required. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.

**Notes to physician**
Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Flash point** Nonflammable

**Lower explosion limit** not applicable

**Upper explosion limit** not applicable

**Suitable extinguishing media:** Not readily combustible. Select extinguishing agent appropriate to other materials involved.

**Specific hazards during fire fighting:** No specific measures necessary.

**Special protective equipment for fire-fighters:** Wear full protective clothing and self-contained breathing apparatus.

**Further information:** This product may give rise to hazardous vapors in a fire.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**
Wear suitable protective clothing.

**Environmental precautions**
Prevent the material from entering drains or water courses. Do not discharge directly to a water source.
Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Methods for cleaning up
Cover with absorbent or contain. Collect and dispose.

7. HANDLING AND STORAGE

Handling
Use only in well-ventilated areas. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed.

Further information on storage conditions: No special precautions necessary.

Storage
Storage conditions: Store in original container. Storage area should be: cool dry well ventilated out of direct sunlight away from incompatible materials

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)
Exposure limits are listed below, if they exist.

<table>
<thead>
<tr>
<th>Component</th>
<th>Regulation</th>
<th>Type of listing</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel Compound</td>
<td>OSHA_TRANS</td>
<td>PEL</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA_TRANS</td>
<td>PEL</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Z1A</td>
<td>TWA</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA Inhalable fraction.</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA Inhalable fraction.</td>
<td>0.2 mg/m³</td>
</tr>
</tbody>
</table>

Eye protection: Chemical goggles or safety glasses

Hand protection: Neoprene gloves. Other chemical resistant gloves may be recommended by your safety professional.

Skin and body protection: Normal work wear.

Respiratory protection: No personal respiratory protective equipment normally required. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Engineering measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

<table>
<thead>
<tr>
<th>Form</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>green</td>
</tr>
<tr>
<td>Odour</td>
<td>No Data</td>
</tr>
<tr>
<td>pH</td>
<td>1.8</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Nonflammable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>not applicable</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>similar to water</td>
</tr>
</tbody>
</table>
### Relative Vapour Density
Heavier than air.

### Water Solubility
Miscible

### Relative Density
1.08

### Evaporation Rate
Slower than ether

### VOC's
13.5 g/l

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**NOTE:** The physical data presented above are typical values and should not be construed as a specification.

## 10. STABILITY AND REACTIVITY

### Hazardous Reactions
Stable under normal conditions.

### Conditions to Avoid
- High temperatures
- Exposure to sunlight
- Contact with incompatible materials

### Materials to Avoid
- Strong oxidizing agents
- Reducing agents

### Hazardous Decomposition Products
- Phosphine
- Oxides of sulfur
- Oxides of phosphorus
- Oxides of carbon
- Nitrogen oxides (NOx)
- Nickel oxide fumes
- Ammonia

### Polymerization
Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

## 13. DISPOSAL CONSIDERATIONS

### Environmental Precautions
Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

### Disposal
Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous. Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

## 14. TRANSPORT INFORMATION

### DOT
Not regulated for transport

### IMO/IMDG
Not regulated (Not dangerous for transport)

*Transportation classifications may vary by container volume and may be influenced by regional or country variations.*
15. REGULATORY INFORMATION

SARA TITLE III: Section 311/312 Categorizations (40CFR370):
Immediate health hazard
Delayed (chronic) Health Hazard

SARA TITLE III: Section 313 Information (40CFR372)
This product contains a chemical which is listed in Section 313 at or above de minimis concentrations.
SARA Title III Components: Nickel Compounds

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D):
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
This product does not contain any substances subject to Section 12(b) export notification.

US. Toxic Substances Control Act (TSCA) All components of this product are in compliance with the
inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

California (Proposition 65)
This product contains a component or components known to the state of California to cause cancer and/or
reproductive harm.
Components: Nickel Compounds

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Hazard Rating</th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
BAc: Butyl acetate
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit (STEL):
TLV: Threshold Limit Value
TWA: Time Weighted Average (TWA):

| Bar | Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at
the date of its publication. The information given is designed only as a guidance for safe handling, use, processing,
storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The
information relates only to the specific material designated and may not be valid for such material used in combination
with any other materials or in any process, unless specified in the text.

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