## Section 1: Identification

**Product Name:** Chlor-XTRA™  
**Product Use:** An enhanced 6% sodium hypochlorite solution designed for irrigation, debridement, and cleansing of root canals during and after instrumentation.  
**Manufacturer:** Inter-Med, Inc. / Vista Dental Products  
**Address:** 2200 South St. Suite A, Racine, WI 53404  
**Phone:** (877) 418-4782  
**Fax:** (262) 636-9760  
**24 HR. Emergency Telephone Number CHEMTREC (North America):** 800-424-9300  
**24 HR. Emergency Telephone Number CHEMTREC (International):** +1 (703) 527-3887

### Section 2: Hazard(s) Identification

2.1. **GHS Classification:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Environmental</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion – Category 1B – H314</td>
<td>Very toxic to aquatic life – Category 1 – H400</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Serious eye damage – Category 1 – H318</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. **GHS Label:**  
OSHA HCS 2012

DANGER
### Hazard Statements

<table>
<thead>
<tr>
<th>Hazard Statements</th>
<th>Precautionary Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H314: Skin corrosion</td>
<td>P273: Avoid release to the environment.</td>
</tr>
<tr>
<td>H318: Serious eye damage</td>
<td>P280: Wear protective gloves / eye protection / face protection / protective clothing.</td>
</tr>
<tr>
<td>H400: Very toxic to aquatic life</td>
<td>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td></td>
<td>P310: Immediately call a POISON CENTER or doctor/physician.</td>
</tr>
</tbody>
</table>

Refer to Section 15.2 for full text of EU Classifications and R/S Phrases.

### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>CAS #</th>
<th>EINECS</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>231-668-3</td>
<td>6.0%</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>215-185-5</td>
<td>&lt;0.5%</td>
</tr>
<tr>
<td>Surfactant Blend</td>
<td>N/A</td>
<td>unlisted</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

### Section 4: First-Aid Measures

#### 4.1. Description of first aid measures

**Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Harmful if swallowed. If over-exposed to solution, there will be constant irritation of the eye, nose, throat, and skin. Causes eye and skin burns.

4.3. Indication of immediate medical attention and special treatment needed

Immediately call a Poison Control Center or doctor/physician.

---

**Section 5: Fire-Fighting Measures**

5.1. Suitable Extinguishing Media:

Use extinguishing media most appropriate for the surrounding fire.

5.2. Fire Fighting Procedures:

General: Evacuate all personnel; use full protective equipment for fire-fighting. Use a NIOSH approved, self-contained breathing apparatus when the product is involved in fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is noncombustible. Oxidizer. Greatly increases the burning rate of combustible materials.

5.3. Unusual Fire and Explosion Hazards:

Nonflammable solution. Product does not ignite when exposed to open flame. Contact with metals may evolve flammable hydrogen gas.

5.4. Combustion Products:

Releases chlorine when heated above 35°C.

---

**Section 6: Accidental Release Measures**

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Wear proper personal protective equipment as indicated in Section 8. Wear respiratory protection and avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Follow instructions listed in Section 6.3 to follow clean up procedures.
6.2. Environmental Precautions

Follow all government regulations for waste disposal. Prevent release to the environment if possible. Do not flush waste or product into sewer or drains that may lead to waterways. Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided.

6.3. Methods and Materials for Containment and Cleaning Up

Small Spills: Wipe up small amounts with chemical resistant or with an absorbent damp rag which is washed with large amounts of water after each use. After cleaning, flush away traces with water.

Large Spills: Soak up with inert absorbent material that is non-combustible and dispose of hazardous waste. Do not flush with water and keep the hazardous waste in a suitable, closed container for later disposal.

Section 7: Handling and Storage

7.1. Handling
For intraoral use only by trained and experienced dental professionals. Follow good hygiene practices. Do not smoke, eat or drink while using. Use suitable protective equipment when handling. Wash thoroughly after handling and avoid any chemical contact with eyes, skin, and clothing. Keep container tightly closed to avoid inhalation or accidental ingestion. Use with adequate ventilation when necessary.

7.2. Storage
Store in a tightly closed container. The recommended storage temperature is 4°C (39°F) and store away from incompatible substances (e.g. acids). Keep containers upright when not in use. Shelf life is 30 months from date of manufacture, provided that it is stored properly.

Section 8: Exposure Controls/Personal Protection

8.1. Exposure Limits / Engineering Controls

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>ACGIH – TLV*</th>
<th>NIOSH – REL*</th>
<th>OSHA – Final PELs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>0.5 ppm**</td>
<td>0.5 ppm**</td>
<td>1 ppm**</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>
* TLV – Threshold Limit Value (should not be exceeded at any time) / REL – Recommended Exposure Limit (should not be exceeded at any time) / PEL – Permissible Exposure Limit (averaged over an 8-hour workshift)

** No exposure limits are established for Sodium Hypochlorite, as Chlorine (Cl₂) are listed instead

**Engineering Controls:** General or local exhaust ventilation should be sufficient to control airborne levels. Emergency shower and eyewash should be nearby while handling the product.

8.2. **Personal Protective Equipment (PPE) Information**

**Eye Protection:** Use proper protection – wear tightly fitted chemical goggles (minimum face shield 8-inch minimum), full-face shield, or a full-face respirator at all time when product is handled. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Contact lenses should not be worn; they may contribute to severe eye injury.

**Skin Protection:** S36/37: Wear suitable protective clothing and gloves. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Clothing Protection:** Wear gloves and protective clothing (lab coat, apron, boots, and bodysuits) to prevent skin exposure. Protective equipment can be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator suitable for chlorine could be worn if PEL, REL, or TLV is exceeded. This respirator can also be used if inadequate ventilation is observed. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
### Section 9: Physical and Chemical Properties

#### 9.1. Appearance / Color

- **Physical State:** Liquid
- **Appearance:** Clear, yellow solution
- **Odor:** Chlorine
- **Odor Threshold:** Not applicable

#### 9.2. Important health, safety and environmental information

- **Flashpoint:** Not applicable
- **Autoignition Temperature:** Not applicable
- **Boiling Point:** Approximately 100°C / 212°F
- **Melting Point:** Not determined
- **Freezing Point:** Not determined
- **Vapor Pressure, mm Hg:** 17.5 at 20°C
- **Relative Density:** Not determined
- **Vapor Density (Air=1):** 2.57
- **Solubility in Water:** Soluble
- **Decomposition Temperature:** Not determined
- **Pour Point:** Not applicable
- **Lower Flammability Limit:** Not applicable
- **Upper Flammability Limit:** Not applicable
- **Specific Gravity:** ~1.1 at 70°F
- **Evaporation Rate (Water=1):** Not applicable
- **Viscosity:** Not determined
- **Octanol/Water Partition Coefficient:** Not determined
- **pH:** 12-13
- **Molecular Weight:** Mixture

### Section 10: Stability and Reactivity

**Chemical Stability:** Light sensitive. Sodium hypochlorite solutions decompose slowly at room temperatures and can release low concentrations of corrosive chlorine gas. Decomposition is influenced by temperature, concentration, pH, ionic strength, exposure to light, and the presence of metals.

**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition Products:** Hydrogen chloride gas and sodium oxides can be formed under fire conditions.


### Section 11: Toxicological Information

#### 11.1. Signs and Symptoms of Overexposure

**Eye Contact:** Causes eye irritation and burns.

**Skin Contact:** May be harmful if absorbed through skin. Causes skin burns and irritation.

**Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion:** May be harmful if swallowed.

**Extra Information:** Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Possible side effects include having spasms, inflammation, edema of the larynx, edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, and nausea.

#### 11.2. Additional Toxicity Information

**Target Organ(s):** Respiratory system, eyes, and skin.

**RTECS#:**
- CAS# 7681-52-9: NH3486300

**LD50/LC50:**
- CAS# 7681-52-9:
  - Draize test, rabbit, eye: 10 mg Moderate;
  - Draize test, rabbit, eye: 1.31 mg Mild;
  - Oral, mouse: LD50 = 5800 mg/kg;

**Carcinogenicity:**
- CAS# 7681-52-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
**Epidemiology:** No information available.
**Teratogenicity:** No information available.
**Reproductive Effects:** No information available.
**Mutagenicity:** Mutation in microorganisms: Salmonella Bacteria = 1mg/plate DNA Repair: E. coli= 20 µg/disc DNA Damage: E. coli = 420 µmol/L Cytogenetic analysis: Human Lymphocyte = 100 ppm/24H
**Neurotoxicity:** No information available.

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**Section 12: Ecological Information**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

---

**Section 13: Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

- **RCRA P-Series:** None listed.
- **RCRA U-Series:** None listed.

To minimize exposure, refer to section 8 (exposure controls/personal protection).

---

**Section 14: Transport Information**

14.1. **U.S. Department of Transportation (DOT)** (N/A = Not applicable)
- **Proper Shipping Name:** Corrosive, Liquid, Basic, Inorganic, N.O.S. (Sodium Hypochlorite Mixture)
- **Identification (UN) Number:** 3266
- **Hazard Class:** 8
- **Packing Group:** III
- **Marine Pollutant:** Not Determined
- **Poison Hazard:** No
14.2. Other Transportation Information

By SEA (IMDG):
Proper Shipping Name: Corrosive, Liquid, Basic, Inorganic, N.O.S. (Sodium Hypochlorite Mixture)
Identification (UN) Number: 3266
Hazard Class: 8
Packing Group: III  EMS-No: F-A, S-B
Marine Pollutant: Not Determined

By GROUND – Canada (TDG):
Proper Shipping Name: Corrosive, Liquid, Basic, Inorganic, N.O.S. (Sodium Hypochlorite Mixture)
Identification (UN) Number: 3266
Hazard Class: 8
Packing Group: III

By AIR (IATA):
Proper Shipping Name: Corrosive, Liquid, Basic, Inorganic, N.O.S. (Sodium Hypochlorite Mixture)
Identification (UN) Number: 3266
Hazard Class: 8
Packing Group: III

Section 15: Regulatory Information

15.1. U.S. Federal Regulations

OSHA Hazards

Corrosive.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard
Massachusetts Right To Know Components

Sodium hypochlorite CAS-No. 7681-52-9
Sodium Hydroxide CAS-No. 1310-73-2

Pennsylvania Right To Know Components

Sodium hypochlorite CAS-No. 7681-52-9
Sodium Hydroxide CAS-No. 1310-73-2

New Jersey Right To Know Components

Water CAS-No. 7732-18-5
Sodium hypochlorite CAS-No. 7681-52-9
Sodium Hydroxide CAS-No. 1310-73-2

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2. European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbol(s) and Classification: “Xi” – Irritant, “C” – Corrosive, “N” – Dangerous for the environment.

EU Risk (R) and Safety (S) Phrases:

R22: Harmful if swallowed.
R31: Contact with acids liberates toxic gas.
R34: Causes burns.
R36/37/38: Irritating to eyes, respiratory system, and skin.
R41: Risk of serious damage to eyes.
R50: Very toxic to aquatic organisms.
S36/37: Wear suitable protective clothing and gloves.

**WHMIS (Canada):** Class E: Corrosive Liquid

---

**Section 16: Other Information**

**National Fire Protection Association (NFPA) Ratings (estimated):** This information is intended solely for the use of individuals trained in the NFPA system.

- **Health:** 2
- **Flammability:** 0
- **Reactivity:** 1

**Disclaimer:** The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Inter-Med Inc. / Vista Dental Products be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Inter-Med Inc. / Vista Dental Products has been advised of the possibility of such damages.

**Prepared:** 9/21/2012    **Revised:** 7/21/2015
Safety Data Sheet

Section 1: Identification

Product Name: CHX-Plus™
Product Use: Enhanced 2% chlorhexidine gluconate solution that kills biofilm bacteria in root canals
Manufacturer: Inter-Med, Inc. / Vista Dental Products
Address: 2200 South St. Suite A, Racine, WI 53404

Phone: (877) 418-4782    Fax: (262) 636-9760
24 HR. Emergency Telephone Number CHEMTREC (North America) : 800-424-9300
24 HR. Emergency Telephone Number CHEMTREC (International) : +1 (703) 527-3887

Section 2: Hazard(s) Identification

2.1. GHS Classification:

<table>
<thead>
<tr>
<th>Health</th>
<th>Environmental</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity, Oral – Category 5 – H303</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin Irritation – Category 3 – H316</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious Eye Damage – Category 2B – H320</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. GHS Label:

OSHA HCS 2012

WARNING
Hazard Statements

<table>
<thead>
<tr>
<th></th>
<th>Precautionary Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H303: May be harmful if swallowed</td>
<td>P264: Wash hands thoroughly after handling</td>
</tr>
<tr>
<td>H316: Causes mild skin irritation</td>
<td>P280: Wear protective gloves / eye protection</td>
</tr>
<tr>
<td>H320: Causes eye irritation</td>
<td>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td></td>
<td>P302+P352: IF ON SKIN: Wash with plenty of soap and water.</td>
</tr>
</tbody>
</table>

Refer to Section 15.2 for full text of EU Classifications and R/S Phrases.

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>CAS #</th>
<th>EINECS</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorhexidine Gluconate</td>
<td>18472-51-0</td>
<td>unlisted</td>
<td>2%</td>
</tr>
<tr>
<td>Surfactant Blend</td>
<td>N/A</td>
<td>unlisted</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Section 4: First-Aid Measures

4.1. Description of first aid measures

Eye Contact: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid, if irritation persists.

Skin Contact: Wash with soap in water.

Inhalation: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dust or fumes, remove to fresh air and obtain medical attention if cough or any other symptoms develop.

Ingestion: Give large volumes of water. Do not induce vomiting. Obtain medical attention or consult a physician if ingested in large amounts.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: Mild irritation/redness in eyes or on skin after contact. Very hazardous in case of ingestion. Non-
corrosive for skin. Non-sensitizer for skin. Non-permeator by skin.

4.3. Indication of immediate medical attention and special treatment needed

Consult a physician or contact Poison Control Center if chemical solution is ingested in large amounts. Physicians are required to treat victim symptomatically.

---

**Section 5: Fire-Fighting Measures**

5.1. Suitable Extinguishing Media:

Use dry chemical, foam, or carbon dioxide to extinguish fire.

5.2. Fire Fighting Procedures:

Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure, self-contained breathing apparatus with full-face mask and full protective clothing.

5.3. Unusual Fire and Explosion Hazards:

Thermal decomposition may produce toxic fumes of ammonia, hydrogen chloride, and oxides of carbon and nitrogen.

5.4. Combustion Products:

Ammonia and nitrogen oxides under fire conditions.

---

**Section 6: Accidental Release Measures**

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Wear proper personal protective equipment as indicated in Section 8. Follow instructions listed in Section 6.3 to follow cleanup procedures.

6.2. Environmental Precautions

Follow all government regulations for waste disposal. Prevent release to the environment if possible. Do not flush waste into sewer or waterways.
6.3. Methods and Materials for Containment and Cleaning Up

**Small Spills:** Wipe up small amounts with chemical resistant or damp rag which is washed with large amounts of water after each use. After cleaning, flush away traces with water.

**Large Spills:** Absorb with inert, damp non-combustible material, then flush area with water.

### Section 7: Handling and Storage

**7.1. Handling**
For intraoral use only by trained and experienced dental professionals. Follow good hygiene practices. Do not smoke, eat or drink while using. Use suitable protective equipment when handling. Wash thoroughly after handling and avoid any chemical contact with eyes, skin, and clothing. Keep container tightly closed to avoid inhalation or accidental ingestion. Use with adequate ventilation when necessary.

**7.2. Storage**
Store in a tightly closed container. Store container at room temperature in a cool, dry, well-ventilated area away from incompatible substances. Keep containers upright when not in use. Shelf life is thirty months from date of manufacture, provided that it is stored properly. Store at room temperature between 15º-30ºC (59º-86ºF).

### Section 8: Exposure Controls/Personal Protection

**8.1. Exposure Limits / Engineering Controls**

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA – Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorhexidine Gluconate</td>
<td>unlisted</td>
<td>unlisted</td>
<td>unlisted</td>
</tr>
<tr>
<td>Surfactant Blend</td>
<td>unlisted</td>
<td>unlisted</td>
<td>unlisted</td>
</tr>
</tbody>
</table>

**Engineering Controls:** General ventilation recommended.

**8.2. Personal Protective Equipment (PPE) Information**

**Eye Protection:** Use proper protection – wear safety glasses, as a minimum.

**Skin Protection:** Wash thoroughly after handling.

**Clothing Protection:** Wear gloves. No extra needed under normal conditions of use.

**Respiratory Protection:** S38: In case of insufficient ventilation wear suitable respiratory equipment.
Section 9: Physical and Chemical Properties

9.1. Appearance / Color

Physical State: Liquid
Appearance: Blue liquid
Odor: Odorless or no characteristic odor
Odor Threshold: Not applicable

9.2. Important health, safety and environmental information

Flashpoint: Not applicable
Autoignition Temperature: Not applicable
Boiling Point: 100°C / 212°F
Melting Point: Not determined
Freezing Point: Not determined
Vapor Pressure, mm Hg: 17.535
Relative Density: Not determined
Vapor Density (Air=1): 0.62
Solubility in Water: Soluble
Decomposition Temperature: Not determined
Pour Point: Not applicable
Lower Flammability Limit: Not applicable
Upper Flammability Limit: Not applicable
Specific Gravity: 1.01
Evaporation Rate (Water=1): Not applicable
Viscosity: Not determined
Octanol/Water Partition Coefficient: Not determined
pH: 5.40
Molecular Weight: Mixture

Section 10: Stability and Reactivity

Chemical Stability: Stable.

Hazardous Polymerization: No.


Incompatible Materials: Strong oxidizing agents, strong alkalies and strong mineral acids.
Conditions to Avoid: None known.

Section 11: Toxicological Information

11.1. Signs and Symptoms of Overexposure

Eye Contact: May cause mild eye irritation and could aggravate pre-existing eye disease.

Skin Contact: May cause slight to moderate irritation.

Inhalation: No significant signs or symptoms indicative of any adverse health hazard.

Ingestion: Slightly toxic. Ingestion of large amounts may cause pain, nausea, stomach cramps, and vomiting.

11.2. Additional Toxicity Information

Target Organ(s): None known.

Chronic Effects: No information found.

Acute Toxicity: Slightly toxic.

Section 12: Ecological Information

No information available.

Section 13: Disposal Considerations


To minimize exposure, refer to section 8 (exposure controls/personal protection).
### Section 14: Transport Information

<table>
<thead>
<tr>
<th>14.1. U.S. Department of Transportation (DOT) (N/A = Not applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name:</td>
</tr>
<tr>
<td>Identification Number:</td>
</tr>
<tr>
<td>Hazard Class:</td>
</tr>
<tr>
<td>Packing Group:</td>
</tr>
<tr>
<td>U.S. DPT Labeling Requirements:</td>
</tr>
<tr>
<td>IATA Class:</td>
</tr>
<tr>
<td>IATA Packing Group:</td>
</tr>
</tbody>
</table>

Not a DOT controlled material (USA). Not regulated.

### 14.2. Other Transportation Information

- **By SEA (IMDG):** Not regulated
- **By GROUND – Canada (TDG):** Not regulated
- **By AIR (IATA):** Not regulated

### Section 15: Regulatory Information

15.1. **U.S. Federal Regulations**

**U.S. – O.S.H.A. Status:** This material is not hazardous under the criteria of the U.S. Federal Hazard Communication Standard.
15.2. European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbol(s) and Classification: “Xi” - Irritant

EU Risk (R) and Safety (S) Phrases:

R36/38: Irritating to eyes, and skin.
S38: In case of insufficient ventilation wear suitable respiratory equipment.

Section 16: Other Information

National Fire Protection Association (NFPA) Ratings (estimated): This information is intended solely for the use of individuals trained in the NFPA system.

Health: 1
Flammability: 0
Reactivity: 0

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Inter-Med Inc. / Vista Dental Products be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Inter-Med Inc. / Vista Dental Products has been advised of the possibility of such damages.

Safety Data Sheet

Section 1: Identification

Product Name: EDTA (17% Solution)
Product Use: Root canal chelating conditioner and cleanser
Manufacturer: Inter-Med, Inc. / Vista Dental Products
Address: 2200 South St. Suite A, Racine, WI 53404

Phone: (877) 418-4782   Fax: (262) 636-9760
24 HR. Emergency Telephone Number CHEMTREC (North America) : 800-424-9300
24 HR. Emergency Telephone Number CHEMTREC (International) : +1 (703) 527-3887

Section 2: Hazard(s) Identification

2.1. GHS Classification:

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<tr>
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<th>Environmental</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
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<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Serious Eye Damage – Category 2B – H320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Toxicity, Oral – Category 5 – H303</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. GHS Label:

OSHA HCS 2012

WARNING
### Hazard Statements

- H316: Causes mild skin irritation
- H320: Causes eye irritation
- H303: May be harmful if swallowed

### Precautionary Statements

- P264: Wash hands thoroughly after handling
- P280: Wear protective gloves / eye protection
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.

Refer to Section 15.2 for full text of EU Classifications and R/S Phrases.

### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>CAS #</th>
<th>EINECS</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>77%</td>
</tr>
<tr>
<td>EDTA (Disodium ethylenediaminetetraacetate dehydrate)</td>
<td>6381-92-6</td>
<td>unlisted</td>
<td>17%</td>
</tr>
<tr>
<td>Proprietary Ingredients</td>
<td>N/A</td>
<td>unlisted</td>
<td>6%</td>
</tr>
</tbody>
</table>

### Section 4: First-Aid Measures

#### 4.1. Description of first aid measures

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid, if irritation persists.

**Skin Contact:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Inhalation:** No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to high level of dusts or fumes, remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms develop.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Do not induce vomiting unless medical advice is given from a professional. Get medical aid if symptoms worsen.
4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Mild irritation/redness in eyes or on skin after contact.

4.3. Indication of immediate medical attention and special treatment needed

Consult a physician or contact Poison Control Center if chemical solution is ingested in large amounts. Physicians are required to treat victim symptomatically.

---

**Section 5: Fire-Fighting Measures**

5.1. Suitable Extinguishing Media:

Use dry chemical, foam, or carbon dioxide to extinguish fire.

5.2. Fire Fighting Procedures:

Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure, self-contained breathing apparatus with full-face mask and full protective clothing.

5.3. Unusual Fire and Explosion Hazards:

None.

5.4. Combustion Products:

Ammonia and nitrogen oxides under fire conditions.

---

**Section 6: Accidental Release Measures**

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Wear proper personal protective equipment as indicated in Section 8. Follow instructions listed in Section 6.3 to follow clean up procedures.

6.2. Environmental Precautions

Follow all government regulations for waste disposal. Prevent release to the environment if possible. Do not flush waste...
into sewer or waterways.

6.3. Methods and Materials for Containment and Cleaning Up

Small Spills: Wear gloves and safety glasses and pick up spill with absorbent material, such as paper towels or disposable cloths. Dispose absorbent material in suitable container and wash the exposed area with soap and water.

Large Spills: Wear proper protective equipment and absorb spill with inert, non-combustible material (e.g. vermiculite, sand, or earth). Dispose non-combustible material in suitable container and flush area with water.

Section 7: Handling and Storage

7.1. Handling
For intraoral use only by trained and experienced dental professionals. Follow good hygiene practices. Do not smoke, eat or drink while using. Use suitable protective equipment when handling. Wash thoroughly after handling and avoid any chemical contact with eyes, skin, and clothing. Keep container tightly closed to avoid inhalation or accidental ingestion. Use with adequate ventilation.

7.2. Storage
Store in a tightly closed container. Store container at room temperature in a cool, dry, well-ventilated area away from incompatible substances. Keep containers upright when not in use. Shelf life is thirty months from date of manufacture, provided that it is stored properly.

Section 8: Exposure Controls/Personal Protection

8.1. Exposure Limits / Engineering Controls

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA – Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>EDTA (Disodium ethylenediaminetetraacetate dehydrate)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.
8.2. Personal Protective Equipment (PPE) Information

**Eye Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin Protection:** Wear appropriate protective gloves and lab coat to prevent skin exposure. Use good personal hygiene and wash hands after use.

**Clothing Protection:** Wear appropriate protective clothing to prevent skin exposure.

**Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

---

**Section 9: Physical and Chemical Properties**

### 9.1. Appearance / Color

**Physical State:** Liquid  
**Appearance:** Clear, colorless liquid  
**Odor:** Odorless or no characteristic odor  
**Odor Threshold:** Not applicable

### 9.2. Important health, safety and environmental information

**Flashpoint:** Not applicable  
**Autoignition Temperature:** Not applicable  
**Boiling Point:** 100°C / 212°F  
**Melting Point:** Not determined  
**Freezing Point:** Not determined  
**Vapor Pressure:** Not determined  
**Relative Density:** Not determined  
**Vapor Density (Air=1):** Not determined  
**Solubility in Water:** Soluble  
**Decomposition Temperature:** Not determined  
**Pour Point:** Not applicable  
**Lower Flammability Limit:** Not applicable  
**Upper Flammability Limit:** Not applicable  
**Specific Gravity:** ~ 1.1  
**Evaporation Rate (Water=1):** Not applicable  
**Viscosity:** Not determined  
**Octanol/Water Partition Coefficient:** Not determined  
**pH:** 8.5
Molecular Weight: Mixture

Section 10: Stability and Reactivity

Chemical Stability: Stable.

Hazardous Polymerization: Has not been reported.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, ammonia and/or derivatives.

Incompatible Materials: Strong oxidizing agents.

Conditions to Avoid: Incompatible materials.

Section 11: Toxicological Information

11.1. Signs and Symptoms of Overexposure: Eye and skin irritation on contact.

Eye Contact: May cause eye irritation.

Skin Contact: May cause slight irritation.

Inhalation: May cause respiratory tract irritation.

Ingestion: May cause respiratory and digestive tract irritation.

11.2. Additional Toxicity Information

Target Organ(s): None known.

Chronic Effects: No information found.

Acute Toxicity: Not toxic.

Acute Toxicity Values
RTECS#:
CAS# 7732-18-5: ZC0110000
CAS# 6381-92-6: AH4410000
CAS# 139-33-3: AH4375000
**LD<sub>50</sub>/LC<sub>50</sub>:**
- CAS# 7732-18-5: Oral, rat: LD<sub>50</sub> = >90 mL/kg;
- CAS# 6381-92-6: <BR>
- CAS# 139-33-3: Oral, mouse: LD<sub>50</sub> = 2050 mg/kg;
  Oral, rabbit: LD<sub>50</sub> = 2300 mg/kg;
  Oral, rat: LD<sub>50</sub> = 2 gm/kg;

**Carcinogenicity:**
- CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
- CAS# 6381-92-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
- CAS# 139-33-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.
**Teratogenicity:** No data available.
**Reproductive Effects:** No data available.
**Neurotoxicity:** No data available.
**Mutagenicity:** No data available.
**Other Studies:** No data available.

**Clinical Experience:** EDTA, 17% solution has been in the global market for more than 15 years. EDTA, 17% solution has been used for root canal treatments for over 20 years. EDTA, 17% solution is industry-accepted and approved for endodontic practice. EDTA is considered to be safe and effective treatment when used by dental professionals.

---

**Section 12: Ecological Information**

Not established.

**Section 13: Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

To minimize exposure, refer to section 8 (exposure controls/personal protection).
Section 14: Transport Information

14.1. U.S. Department of Transportation (DOT) (N/A = Not applicable)

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification Number:</td>
<td>N/A</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>N/A</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>N/A</td>
</tr>
<tr>
<td>U.S. DPT Labeling Requirements:</td>
<td>N/A</td>
</tr>
<tr>
<td>IATA Class:</td>
<td>N/A</td>
</tr>
<tr>
<td>IATA Packing Group:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Non-hazardous material / Not regulated. Not a DOT controlled material (USA).

14.2. Other Transportation Information

By SEA (IMDG): Not regulated

By GROUND – Canada (TDG): Not regulated

By AIR (IATA): Not regulated

Section 15: Regulatory Information

15.1. U.S. Federal Regulations

U.S. – O.S.H.A. Status: This material is not hazardous under the criteria of the U.S. Federal Hazard Communication Standard.

TSCA
CAS# 7732-18-5 is listed on the TSCA inventory.
CAS# 6381-92-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).
CAS# 139-33-3 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 6381-92-6: acute.

Section 313
No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 6381-92-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 139-33-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California: No Significant Risk Level: None of the chemicals in this product are listed.
15.2. European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbol(s) and Classification: “Xi” - Irritant

EU Risk (R) and Safety (S) Phrases:

R36/37/38: Irritating to eyes, respiratory system, and skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S28B: After contact with skin, wash immediately with plenty of water and soap.

WGK (Water Danger/Protection)

CAS# 7732-18-5: No information available.
CAS# 6381-92-6: 2
CAS# 139-33-3: 2

Canada - DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 6381-92-6 is listed on Canada's DSL List.
CAS# 139-33-3 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

Canadian Ingredient Disclosure List
## Section 16: Other Information

**National Fire Protection Association (NFPA) Ratings (estimated):** This information is intended solely for the use of individuals trained in the NFPA system.

- **Health:** 0
- **Flammability:** 0
- **Reactivity:** 0

**Disclaimer:** The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Inter-Med Inc. / Vista Dental Products be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Inter-Med Inc. / Vista Dental Products has been advised of the possibility of such damages.

**Prepared:** 3/13/2008  
**Revised:** 7/21/2015
Safety Data Sheet

Section 1: Identification

**Product Name:** Rinse-n-Dry™
**Product Use:** Penetrates lateral canals and isthmuses for improved drying and cleansing
**Manufacturer:** Inter-Med, Inc. / Vista Dental Products
**Address:** 2200 South St. Suite A, Racine, WI 53404

**Phone:** (877) 418-4782  **Fax:** (262) 636-9760
**24 HR. Emergency Telephone Number CHEMTREC (North America) :** 800-424-9300
**24 HR. Emergency Telephone Number CHEMTREC (International) :** +1 (703) 527-3887

Section 2: Hazard(s) Identification

2.1. **GHS Classification:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Environmental</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irritation – Category 2 – H315</td>
<td>Not Applicable</td>
<td>Highly Flammable Liquid – Category 2 – H225</td>
</tr>
<tr>
<td>Eye Irritation – Category 2B – H320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory tract irritation – Category 3 – H335</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. **GHS Label:**

OSHA HCS 2012

DANGER
**Hazard Statements**

H225: Highly flammable liquid and vapor.
H315+H320: Causes skin and eye irritation.
H335: May cause respiratory irritation.

**Precautionary Statements**

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P233: Keep container tightly closed.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves / eye protection.
P303+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235: Store in a well ventilated place and keep cool.
P501: Dispose of contents/container to an approved waste disposal plant.

Refer to Section 15.2 for full text of EU Classifications and R/S Phrases.

### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>CAS #</th>
<th>EINECS</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>200-578-6</td>
<td>95%</td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>141-78-6</td>
<td>205-500-4</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

### Section 4: First-Aid Measures

#### 4.1. Description of first aid measures

**Eye Contact:** Flush eyes with water for at least 15 minutes and seek medical advice.

**Skin Contact:** Wash skin with soap and water for at least 15 minutes. Take off immediately any contaminated clothing.

**Inhalation:** Remove to fresh air; Give artificial respiration if not breathing; If breathing is difficult.

**Ingestion:** If swallowed, do NOT induce vomiting; seek medical advice immediately and show this container or label. Loosen tight clothing such as a collar, tie, belt or waistband. Rinse mouth with water.
4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Skin or eyes may become irritated and rashes or burning sensation can occur. If inhaled, it may cause irritation of mucous membranes and respiratory tract. If ingested, red skin, rise in body temperature, accelerated heart action, central nervous system depression, dizziness, headache, nausea, disturbances of heart rate, cramps and other symptoms may be developed.

4.3. Indication of immediate medical attention and special treatment needed

Consult a physician or contact Poison Control Center if chemical solution is ingested in large amounts. Physicians are required to treat victim symptomatically.

**Note to Physician:** Symptoms vary with alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.05-0.15%. Approximately 25% of individuals show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Severe poisoning occurs when the blood is ethanol level is 0.3-0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs or the excessive administration of fluids.

### Section 5: Fire-Fighting Measures

5.1. Suitable Extinguishing Media:

Apply alcohol-type or all-purpose foam by manufacturer’s recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

5.2. Fire Fighting Procedures:

Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH-approved positive pressure, self-contained breathing apparatus with full-face mask and full protective clothing. Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapors because re-ignition is possible.

5.3. Unusual Fire and Explosion Hazards:

Vapors may travel to source of ignition and flash back. Vapors may settle in low or confined spaces. May produce a floating fire hazard. Static ignition hazard can result from handling and use. Closed containers exposed to heat may explode. Extremely flammable.
Section 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Wear proper personal protective equipment as indicated in Section 8. Follow instructions listed in Section 6.3 to follow clean up procedures. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations and avoid inhalation. Vapours can accumulate in low areas.

6.2. Environmental Precautions

Follow all government regulations for waste disposal. Prevent further release to the environment if possible. Do not flush waste into sewer or waterways.

6.3. Methods and Materials for Containment and Cleaning Up

Small Spills: Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Ventilate the area of spill or leak. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into sealed container for disposal.

Large Spills: Shut off ignition sources. Use water spray to reduce vapors. No smoking, flames, or flares in spill area! Keep unnecessary people away. Ventilate area. Wear appropriate protective equipment, isolate hazard area and deny entry. Take up spill with vermiculite, dry sand, earth, or similar material, and deposit into sealed containers. For very large spills, call fire department immediately.

Section 7: Handling and Storage

7.1. Handling

For intraoral use only by trained and experienced dental professionals. Follow good hygiene practices. Do not smoke, eat or drink while using. Use suitable protective equipment when handling. Wash thoroughly after handling and avoid any chemical contact with eyes, skin, and clothing. Keep container tightly closed to avoid inhalation or accidental ingestion. Use with adequate ventilation. Product is flammable – keep it away from heat, sparks, and flames. Treat empty containers as hazardous since vapors may collect in containers.
7.2. Storage
Store in a tightly closed container. Store container at room temperature in a cool, dry, well-ventilated area away from incompatible substances (refer to section 10 for this information). Keep containers upright when not in use. Shelf life is eighteen months from date of manufacture, provided that it is stored properly.

Section 8: Exposure Controls/Personal Protection

8.1. Exposure Limits / Engineering Controls

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>ACGIH – TLV*</th>
<th>NIOSH – REL*</th>
<th>OSHA – Final PELs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>1,000 ppm</td>
<td>1,000 ppm</td>
<td>1,000 ppm</td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>400 ppm</td>
<td>400 ppm</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

* TLV – Threshold Limit Value (should not be exceeded at any time) / REL – Recommended Exposure Limit (should not be exceeded at any time) / PEL – Permissible Exposure Limit (averaged over an 8-hour workshift)

Engineering Controls: Use adequate ventilation to keep airborne concentrations low. Emergency shower and eyewash should be nearby while handling the product.

8.2. Personal Protective Equipment (PPE) Information

Eye Protection: Splash proof chemical safety goggles should be worn.

Skin Protection: Wear appropriate protective gloves and lab coat to prevent skin exposure. Use proper glove removal technique (without touching glove’s outer surface) to avoid contact with this product. Dispose of contaminated gloves in accordance with applicable laws and good laboratory practices. Use good personal hygiene and wash hands after use.

Clothing Protection: Wear appropriate protective clothing to prevent skin exposure (e.g. lab coat or apron).

Respiratory Protection: None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or REL or TLV is exceeded.

Section 9: Physical and Chemical Properties

9.1. Appearance / Color

Physical State: Liquid
Appearance: Clear, colorless liquid
Odor: Alcohol odor
Odor Threshold: Not determined

9.2. Important health, safety and environmental information

Flashpoint: 17°C / 63°F – closed cup
Autoignition Temperature: 363°C / 685°F (for 100% ethanol)
Boiling Point: 80.2°C / 176.4°F, at 20°C
Melting Point: Not determined
Freezing Point: < -59°C (< -75°F)
Vapor Pressure: 40 mm Hg, at 20°C
Relative Density: 6.80 lbs/gal, at 15.56°C / 60°F
Vapor Density (Air=1): 1.4
Solubility in Water: Soluble
Decomposition Temperature: Not determined
Pour Point: Not determined
Lower Flammability Limit: 3.3 %(V)
Upper Flammability Limit: 19 % (V)
Specific Gravity: 0.8158 at 15.56°C
Evaporation Rate (Water=1): 2.8
Viscosity: Not determined
Octanol/Water Partition Coefficient: Not determined
pH: No information available
Molecular Weight: Mixture

Section 10: Stability and Reactivity

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide may form.

Incompatible Materials: Strong oxidizing agents, ammonia, peroxides, strong inorganic acids, and alkali metals.

Conditions to Avoid: Incompatible materials, heat, and sources of ignition. Extreme temperatures and direct sunlight.
Section 11: Toxicological Information

11.1. **Signs and Symptoms of Overexposure:** Central nervous system depression, narcosis, damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have been thoroughly investigated.

**Eye Contact:** May cause eye irritation and can cause corneal damage.

**Skin Contact:** May cause moderate skin irritation. Repeated exposure may cause skin dryness or cracking.

**Inhalation:** May cause respiratory tract irritation. Vapors may cause dizziness or suffocation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

11.2. **Additional Toxicity Information**

**Target Organ(s):** Eyes, Liver, Kidneys, Central Nervous System.

**Acute Toxicity Values**

**RTECS:**

CAS# 64-17-5: KQ6300000.

CAS# 67-56-1: PC1400000.

CAS# 67-63-0: NT8050000.

**LD50/LC50:**

**CAS# 64-17-5:**

Inhalation, mouse: LC50 =39 gm/m3/4H

Inhalation, rat: LC50 =20000 ppm/10H

Oral, mouse: LD50 = 3450 mg/kg

Oral, rabbit: LD50 = 6300 mg/kg
Oral, rat: LD50 = 7060 mg/kg.

**CAS# 67-56-1:**

Inhalation, rat: LC50 = 64000 ppm/4H

Oral, mouse: LD50 = 7300 mg/kg

Oral, rabbit: LD50 = 14200 mg/kg

Oral, rat: LD50 = 5628 mg/kg

Skin, rabbit: LD50 = 15800 mg/kg.

**CAS# 67-63-0:**

Oral, mouse: LD50 = 3600 mg/kg

Oral, rabbit: LD50 = 6410 mg/kg

Oral, rat: LD50 = 5045 mg/kg

Skin, rabbit: LD50 = 12800 mg/kg.

**Carcinogenicity:**

CAS# 64-17-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 67-63-0: IARC: Group 3 (not classifiable as to carcinogenicity)

**Epidemiology:**

Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome". Among the characteristics of this syndrome are intrauterine and postnatal growth deficiency, a distinctive pattern of physical malformation, and behavioral/cognitive impairment such as fine motor dysfunction and mental retardation. Not all affected children have all of the features of the syndrome. Central Nervous System depressant. Alcohol component enhances effect.
Teratogenicity: No information found.

Reproductive: No information found.

Mutagenicity: No information found.

Neurotoxicity: No information found.

**Section 12: Ecological Information**

Not established.

**Section 13: Disposal Considerations**

Vapors may collect in empty containers. Treat empty containers as hazardous. Dispose of spill-clean up and other wastes in accordance with Federal, State, and local regulations.

To minimize exposure, refer to section 8 (exposure controls/personal protection).

**Section 14: Transport Information**

14.1. U.S. Department of Transportation (DOT) (N/A = Not applicable)

**Proper Shipping Name:** Ethanol solutions

**Identification (UN) Number:** 1170

**Hazard Class:** 3

**Packing Group:** II

**Marine Pollutant:** No

**Poison Inhalation Hazard:** No
14.2. Other Transportation Information

By SEA (IMDG):
Proper Shipping Name: Ethanol solutions
Identification (UN) Number: 1170
Hazard Class: 3
Packing Group: II  EMS-No: F-E, S-D
Marine Pollutant: No

By GROUND – Canada (TDG):
Proper Shipping Name: Ethanol solutions
Identification (UN) Number: 1170
Hazard Class: 3
Packing Group: II

By AIR (IATA):
Proper Shipping Name: Ethanol solutions
Identification (UN) Number: 1170
Hazard Class: 3
Packing Group: II

Section 15: Regulatory Information

15.1. U.S. Federal Regulations

Federal EPA

Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in CFR. Components present in this product at a level which could require reporting under this statute are:

<table>
<thead>
<tr>
<th>Chemical Components</th>
<th>CAS #</th>
<th>Upper Bound Conc. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>0.0002</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>0.0015</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
<td>0.0010</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on threshold planning quantities and release reporting based on reportable quantities in 40 CFR 355 (used for SARA 302, 304, 311, and 312). Components present in this product at a level which could require reporting under this statute are: none.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of
release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS’s that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: none

**Toxic Substances Control Act (TSCA) Status:** The ingredients of this product are on the TSCA inventory.

**State Right to Know**

California Proposition 65: This product contains trace levels of acetaldehyde known to the State of California to cause cancer.

Massachusetts: Hazardous substances and extraordinarily hazardous substances must be identified. Components present which could require reporting:

Extraordinarily Hazardous (⇒ 0.0001%): Acetaldehyde (CAS 75-07-0)

upper bound conc. .0010%

Hazardous (⇒1%): Ethanol (CAS 64-17-5) upper bound conc. 92.3%

Pennsylvania: Hazardous substances must be identified.

Hazardous (⇒1%): Ethanol (CAS 64-17-5) upper bound conc. 92.3%

California SCAQMD Rule 443.1 (VOC’s)

A **Volatile Organic Compound (VOC)** is any volatile compound of carbon excluding methane, carbon monoxide, carbonic acid, metallic carbides, or carbonates, ammonium carbonate, 1,1,1 tri-chloroethane, methylene chloride, (FC-23), (CFC-113), (CFC-12), (CFC-11), (CFC-22), (CFC-114) and (CFC-115).

VOC 800g/l; vapor pressure 41.4 mm Hg @20C for undenatured ethanol, 190 proof
15.2. European/International Regulations

European Labeling in Accordance with EC Directives

**Hazard Symbol(s) and Classification:** “Xi” – Irritant, “Xn” – Harmful, “F” – Highly Flammable

<table>
<thead>
<tr>
<th>Hazard Symbol</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Symbol" /></td>
<td>Irritant</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>Harmful</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>Highly Flammable</td>
</tr>
</tbody>
</table>

**EU Risk (R) and Safety (S) Phrases:**

- R11: Highly flammable.
- R36/37/38: Irritating to eyes, respiratory system, and skin.
- R66: Repeated exposure may cause skin dryness or cracking.
- S9: Keep container in a well-ventilated place.
- S15: Keep away from heat.
- S36/37: Wear suitable protective clothing and gloves.
- S60: This material and its container must be disposed of as hazardous waste.

**Canada - DSL/NDSL**

CAS# 64-17-5 is listed on Canada's DSL/NDSL List.
CAS# 67-56-1 is listed on Canada's DSL/NDSL List.
CAS# 67-63-0 is listed on Canada's DSL/NDSL List.

**Canadian Ingredient Disclosure List**

CAS# 64-17-5 is listed on Canada's Ingredient Disclosure List.
CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.
CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

**Canada - WHMIS**

- B2 – Flammable and combustible material – Flammable liquid
- D2B – Poisonous and infectious material – Other effects – Toxic

<table>
<thead>
<tr>
<th>Hazard Symbol</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4" alt="Symbol" /></td>
<td>Flammable Liquid</td>
</tr>
<tr>
<td><img src="image5" alt="Symbol" /></td>
<td>Toxic</td>
</tr>
</tbody>
</table>

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Section 16: Other Information

National Fire Protection Association (NFPA) Ratings (estimated): This information is intended solely for the use of individuals trained in the NFPA system.

Health: 2
Flammability: 3
Reactivity: 0

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Inter-Med Inc. / Vista Dental Products be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Inter-Med Inc. / Vista Dental Products has been advised of the possibility of such damages.