1. IDENTIFICATION

**Product Name:** Halyard* Bitrex Solutions for Qualitative Fit Testing  
**Product Number:** 99009-00

| Date Prepared: | 3/25/15 |
| Manufacturer: | Halyard Health Inc.  
5405 Windward Parkway  
Alpharetta, Georgia 30004 |
| Telephone: | MEDICAL EMERGENCY: Call 911 or your local Emergency Room or Poison Control Services  
TRANSPORTATION EMERGENCY: Chemtrec 1-800-424-9300 or 1-703-527-3887 (collect calls accepted)  
INFORMATION: 1-844-HALYARD |

**Product Use:** Respirator fit testing

2. HAZARDS IDENTIFICATION

**GHS Classification:** Not Hazardous

**GHS Labeling:** No GHS labeling required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No./EINECS-No</th>
<th>%</th>
<th>GHS Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5/231-791-2</td>
<td>95%</td>
<td>Not Hazardous</td>
</tr>
<tr>
<td>Denatonium benzoate (Bitrex™)</td>
<td>3734-33-6/223-095-2</td>
<td>&lt;5%</td>
<td>Acute Tox H304</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Inhalation:** Move to fresh air. Seek medical advice if cough, shortness of breath or other respiratory problems occur.

**Skin contact:** Rinse with water. Seek medical advice if redness, swelling, itching or burning occurs.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids. Obtain medical attention if irritation persists.

**Ingestion:** If victim is conscious, rinse mouth with a small amount of water. Never give anything by mouth to a person who is unconscious or drowsy. Call a physician or Poison Control Centre.
Most Important symptoms and effects, both acute and delayed: May cause mild eye irritation.

Indication of any immediate medical attention and special treatment needed: None required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) Extinguishing Media: Use media suitable for surrounding materials.

Specific Hazards Arising from the Chemical: None.

Hazardous Combustion Products: None

Special Protective Equipment and Precautions for Fire-fighters: None required.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate protective clothing and equipment.

Environmental Precautions: Report releases as required by local and federal regulations.

Methods and Materials for Containment and Cleaning Up: Contain and collect with inert absorbent material and place in a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes.

Conditions for Safe Storage, including any Incompatibilities: No special storage conditions required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure limit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hazardous Ingredients</td>
<td>None established</td>
</tr>
<tr>
<td>Denatonium benzoate (Bitrex™)</td>
<td>None established</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: No special ventilation normally required.

Individual Protection Measures, such as Personal Protective Equipment:

Respiratory Protection: No personal respiratory protective equipment normally required.

Protective Gloves: None required for normal use.
Eye Protection: Wears safety glasses or goggles if eye contact is possible.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor</td>
<td>Clear, colorless, odorless liquid. Extreme bitter taste.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>212°F (100°C)</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density (water=1)</td>
<td>1.0</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density (air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Complete</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl acetate=1)</td>
<td>Same as water</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Volatile Organic Carbon Compounds (VOC) (g/L)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>None.</td>
</tr>
<tr>
<td>Flammable Limits in Air % by Volume:</td>
<td>LEL (Lower): Not applicable</td>
</tr>
<tr>
<td></td>
<td>UEL (Upper): Not applicable</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>None.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: Stable at ambient temperature and pressure.

Possibility of Hazardous Reactions: None currently known.

Conditions to Avoid: None currently known.

Incompatible Materials: None currently known.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
11. TOXICOLOGICAL INFORMATION

Symptoms/Effects of Overexposure:

**Inhalation:** Inhalation of aerosol may cause irritation to the upper respiratory tract. Extreme bitter taste.

**Skin contact:** Prolonged skin contact may cause mild irritation in sensitive individuals.

**Eye contact:** May cause mild eye irritation.

**Ingestion:** May cause nausea, vomiting, diarrhea, dizziness, drowsiness and other symptoms of central nervous system depression. The material has a profoundly bitter taste so ingestion of large amounts is very unlikely.

**Chronic toxicity:** None expected.

**Carcinogenicity Data:** None of the components of this product is listed as a carcinogen by IARC, NTP, US OSHA or the EU CLP Annex VI.

**Reproductive Toxicity:** None currently known.

**Numerical Measures of Toxicity:**
- Acute Toxicity Estimate: Oral 12,500 mg/kg
- Denatonium benzoate: LD₅₀ oral rat 584 mg/kg, Dermal rabbit LD₅₀ > 2000 mg/kg

12. ECOLOGICAL INFORMATION

**Ecotoxicity:** No data is currently available.
- Denatonium benzoate: 96 hr LC₅₀ Oncorhynchus mykiss > 1000 mg/L

**Persistence and Degradability:** No data is currently available.

**Bioaccumulative Potential:** No data available

**Mobility in Soil:** No data available

**Other Adverse Effects:** None currently known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all state, local and federal regulations.

14. TRANSPORT INFORMATION

**US DOT Shipping Description:** Not regulated

**IATA Shipping Description (Air):** Not regulated

**IMDG Shipping Description (Vessel):** Not regulated
15. REGULATORY INFORMATION

US Regulations

**EPA Toxic Substances Control Act (TSCA):** All of the components of this product are listed on the TSCA Inventory or exempted from TSCA.

**SARA 302 Listed Chemicals:** None.

**SARA 311/312 Hazard Categories:** Not Hazardous

**SARA 313 This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372):** None.

**California Proposition 65:** This product does not contain chemicals listed per the Safe Drinking Water and Toxic Enforcement Act of 1986.

**International Regulations**

**Canadian CEPA:** All of the components are either listed on or exempted from the Domestic Substances List (DSL).

16. OTHER INFORMATION

**Date Prepared:** 3/25/15

**GHS Classification Hazard Statements seen in Section 3 for Reference:**
- Acute Tox 4 = Acute Toxicity Category 4
- H302 Harmful if swallowed

**HMIS Rating:** Health 0 Fire 0 Physical Hazard 0

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