Innovative. Smart. Trusted.
We’re your partner for sterilization products.

Monitoring Products for Vaporized Hydrogen Peroxide

VH2O2
Crosstex Industrial is a division of Crosstex International, a Cantel Medical Company (NYSE:CMN). We are a leading global manufacturer of infection control and sterilization assurance products. We create high quality, innovative products, the majority of which are manufactured in the United States. Our broad range of products include the following key product lines: Biological Indicators, Chemical Indicators, Quality Control Test Suspensions, Sterilization Pouches and Tubes, Custom Indicator Labels, Face Masks and High Level Disinfectants.

Our global market segments include medical device, pharmaceutical, contract sterilizer, laboratory, food and beverage and biotechnology companies which we serve through a worldwide distribution network. With eleven manufacturing/distribution facilities around the world – eight in the United States and three internationally – Crosstex Industrial services the global infection control community in an efficient and timely manner.

Crosstex's infection control and sterilization assurance products are manufactured in FDA regulated facilities certified to ISO 13485:2012. Globally, Crosstex maintains a comprehensive list of accreditations and certifications.

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Trypticase® is a registered trademark owned by Becton, Dickinson and Company.
Biological Indicators

SporView® Self-Contained Biological Indicators

Crosstex SporView® Self-Contained Biological Indicators (SCBIs) for monitoring Vaporized Hydrogen Peroxide (VH₂O₂) sterilization processes provide fast, visible, consistent and reliable results offering peace of mind for assurance of effective sterilization. Use of Crosstex’s distinctively designed SCBI system reduces the possibility of contamination and minimizes the potential for false positives associated with post-exposure transfer. Crosstex SporView® SCBIs consist of a thermoplastic vial and a white cap, a crushable glass ampule with an exclusively formulated Trypticase® Soy Broth (TSB) modified with pH indicator, and a glass fiber disc inoculated with Geobacillus stearothermophilus spores.

- Reduced incubation time of 24 hours
- Visually distinct positive results from purple to yellow
- Chemical Indicator on label provides instant indication of exposure
- Smaller size, 8.4 mm x 45.5 mm, designed to fit in challenging sterilization areas
- Compliant with ISO 11138-1

### SporView® SCBIs

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Population</th>
<th>Incubation Time</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>VH50</td>
<td>10⁶</td>
<td>24 hours</td>
<td>50/box</td>
</tr>
</tbody>
</table>

### Digital Dry Block Incubator

The Crosstex Digital Dry Block Incubator is designed for convenient and reliable incubation of SporView® SCBIs.

- The electronically-heated aluminum block holds up to 10 units
- 13 mm well size
- Temperature and incubation time are displayed digitally
- Adjustable temperature (5°C to 70°C) and incubation time (0 to 99h 59m)
- Reaches set point temperature in 15 minutes or less
- Transparent lid included to ensure consistent temperature and to protect the units
- 12 month limited warranty

### Standard Dry Block Incubators

The Crosstex Standard Dry Block Incubators are available with 11 mm well sizes designed for use with SporView® SCBIs.

- Compact design allows for minimal counter space to be utilized
- Aluminum block holds up to 15 units
- Built-in vial crusher
- 5 year limited warranty

### Standard Dry Block Incubators

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Temperature</th>
<th>Voltage</th>
<th>Plug Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDB-060</td>
<td>55°C to 60°C</td>
<td>110V</td>
<td>North &amp; South America</td>
</tr>
<tr>
<td>NDB-060-E</td>
<td>55°C to 60°C</td>
<td>220V</td>
<td>Europe</td>
</tr>
<tr>
<td>NDB-060-A</td>
<td>55°C to 60°C</td>
<td>220V</td>
<td>Australia &amp; China</td>
</tr>
</tbody>
</table>
Biological Indicators

Inoculated Carriers & Biological Indicators
Crosstex manufactures a comprehensive product line of Inoculated Carriers and Biological Indicators (BIs) for use in monitoring Vaporized Hydrogen Peroxide (VH$_2$O$_2$) sterilization processes. The BIs are designed for monitoring processes whether placed directly into the chamber, positioned in areas of a device which are the most difficult to sterilize or distributed throughout rooms and isolators.

- Convenient shelf packages of 100 units per box
- *Bacillus atrophaeus* and *Geobacillus stearothermophilus* product configurations available
- Products are accompanied by a Certificate of Analysis and are certified with population, purity, and resistance characteristics (D value, survival and kill where applicable)
- ISO 11138-1 Compliant

Steel & Glass Fiber Spore Discs

- Glass Fiber Spore Discs are 9 mm in diameter and are packaged in Tyvek®/Mylar®
- Steel Spore Discs are 6 mm in diameter and are available packaged in easy-to-access Tyvek®/Mylar® or Tyvek®/Tyvek® pouches (Please inquire for bulk & other packaging)

Glass Fiber Spore Discs

*Bacillus atrophaeus* Cell Line 9372
12 month shelf life

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Packaging</th>
<th>Population</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFTN-06</td>
<td>Tyvek®/Mylar®</td>
<td>$10^6$</td>
<td>100/box</td>
</tr>
</tbody>
</table>

*Geobacillus stearothermophilus* Cell Line 7953
24 month shelf life

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Packaging</th>
<th>Population</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFTS-06</td>
<td>Tyvek®/Mylar®</td>
<td>$10^6$</td>
<td>100/box</td>
</tr>
</tbody>
</table>

Spore Coupons & Spore Wires

- Spore Coupons are 34 mm x 7 mm x 0.9 mm and packaged in easy-to-access 57 mm x 70 mm Tyvek®/Mylar® pouches (Please inquire for bulk packaging)
- Spore Wires are 40 mm x 1.5 mm and packaged in bulk
- Coupons and Wires have a rigid structure which allows for easy insertion and removal from a device
- Spore Coupons are supplied with a hole to allow them to hang in the sterilizer or room when removed from packaging

Spore Coupons

*Bacillus atrophaeus* Cell Line 9372
12 month shelf life

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Description</th>
<th>Packaging</th>
<th>Population</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPN-06</td>
<td>Steel Coupon</td>
<td>Tyvek®/Mylar®</td>
<td>$10^6$</td>
<td>100/box</td>
</tr>
</tbody>
</table>

*Geobacillus stearothermophilus* Cell Line 7953
19 month shelf life

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Description</th>
<th>Packaging</th>
<th>Population</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-06</td>
<td>Steel Coupon</td>
<td>Tyvek®/Mylar®</td>
<td>$10^6$</td>
<td>100/box</td>
</tr>
</tbody>
</table>

Spore Wires

*Geobacillus stearothermophilus* Cell Line 7953
19 month shelf life

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Description</th>
<th>Packaging</th>
<th>Population</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWH-06</td>
<td>Braided Steel</td>
<td>Bulk</td>
<td>$10^6$</td>
<td>100/box</td>
</tr>
</tbody>
</table>
Biological Indicators

Spore Suspensions

Crosstex manufactures Spore Suspensions utilized in VH₂O₂ sterilization processes. The Spore Suspensions are pure suspensions of spores with known resistance characteristics and a variety of population levels standardized per 0.1 mL. The Spore Suspensions allow for direct inoculation of products, typically to verify sterility of devices which are most difficult to sterilize. They can also be used for a variety of other microbiological tests including cleaning effectiveness studies, Bioburden percent recovery and Bacteriostasis/Fungistasis (BF) testing.

- Each vial contains 10 mL of suspension. Diluent contains 20% ethanol
- Pharmaceutical grade glass vials with screw cap and septum
- Spore Suspensions require storage under refrigerated conditions (2°C to 8°C)
- Each vial of Spore Suspension is accompanied by a Certificate of Analysis detailing the source, assayed population, resistance characteristics and expiration date
- ISO 11138-1 Compliant

<table>
<thead>
<tr>
<th>Spore Suspensions</th>
<th>Geobacillus stearothermophilus Cell Line 7953</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 month shelf life</td>
<td></td>
</tr>
<tr>
<td>Crosstex Code</td>
<td>Population per 0.1 mL</td>
</tr>
<tr>
<td>VGS-106H</td>
<td>10⁶</td>
</tr>
<tr>
<td>VGS-107H</td>
<td>10⁷</td>
</tr>
<tr>
<td>VGS-108H</td>
<td>10⁸</td>
</tr>
</tbody>
</table>

Chemical Indicators

Chemical Indicator Strips

Crosstex VH₂O₂ Chemical Indicator Strips are certified to meet chemical indicator specifications for pack monitoring when used in VH₂O₂ sterilization processes. Crosstex evaluates the performance of every lot in state of the art equipment to ensure consistent and reliable performance.

- Provide a distinct color change from red to blue upon exposure to VH₂O₂ processes
- Demonstrate exceptional performance in the most widely used VH₂O₂ sterilizers
- Manufactured with synthetic material
- ISO 11140-1 Type 1 Compliant

<table>
<thead>
<tr>
<th>Chemical Indicator Strips</th>
<th>Unexposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator turns BLUE when exposed to VH₂O₂ during the sterilization process.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Indicator Strips</th>
<th>Exposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator turns BLUE when exposed to VH₂O₂ during the sterilization process.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Indicator Strips</th>
<th>Description</th>
<th>Dimensions</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS-250R</td>
<td>VH₂O₂ Chemical Indicator Strip – Type 1</td>
<td>101 mm x 15 mm (4” x 0.75”)</td>
<td>250/box</td>
</tr>
</tbody>
</table>
Chemical Process Indicators

Crosstex Vaporized Hydrogen Peroxide (VH\textsubscript{2}O\textsubscript{2}) Chemical Process Indicators (CPIs) meet performance specifications as outlined in ISO 11140-1 Sterilization of health care products - Chemical indicators - Part 1: General requirements, for Type 1 Process Indicators. CPIs provide a fast and reliable visual check on items that were exposed to VH\textsubscript{2}O\textsubscript{2}.

- Consistent color transition
- No light sensitivity issues
- Permanent pressure-sensitive adhesive
- Room temperature storage (15°C to 30°C)
- Each shipment is accompanied by a Certificate of Analysis to ensure product quality and consistency

### Indicator Tape (Red to Yellow)

Crosstex VH\textsubscript{2}O\textsubscript{2} Tape (red to yellow option) is designed to aid in distinguishing processed from unprocessed loads. The tape consists of a strong custom-made white polyester substrate with a pressure sensitive adhesive which adheres to Tyvek\textsuperscript{®}, plastic, woven, treated woven and non-woven wraps. The adhesive allows for secure seals yet is easy to remove.

- Latex & Lead free
- Tape will change color from red to yellow when exposed to 2.3 mg/L ± 0.4 mg/L of VH\textsubscript{2}O\textsubscript{2} at 50°C for 6 minutes exposure time or longer
- Can be written upon
- Long shelf life of 36 months
- Each shipment includes a Certificate of Analysis for assurance of product quality and performance
- ISO 11140-1 Type 1 Compliant

### Indicator Tape (Red to Blue)

Crosstex VH\textsubscript{2}O\textsubscript{2} Tape (red to blue option) is to be used as an external chemical indicator for packages to be sterilized in VH\textsubscript{2}O\textsubscript{2} sterilization processes. This is a process indicator that indicates the package has been exposed to VH\textsubscript{2}O\textsubscript{2} during the sterilization process.

- Each roll comes in its own dispenser box; just tear off appropriate length, remove liner and secure to wrap
- Tape will change color from red to blue when exposed to 2.3 mg/L ± 0.4 mg/L of VH\textsubscript{2}O\textsubscript{2} at 50°C for 6 minutes exposure time or longer
- 15 month shelf life
- ISO 11140-1 Type 1 Compliant

### Indicator Tapes

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Description</th>
<th>Dimensions</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP-H48</td>
<td>VH\textsubscript{2}O\textsubscript{2} Tape (red to yellow)</td>
<td>19 mm x 55 m (3/4” x 60 yds)</td>
<td>48 rolls/box</td>
</tr>
<tr>
<td>HT-048</td>
<td>VH\textsubscript{2}O\textsubscript{2} Tape (red to blue)</td>
<td>19 mm x 55 m (3/4” x 60 yds)</td>
<td>24 rolls/box</td>
</tr>
</tbody>
</table>
**Tyvek® Sterilization Pouches**

Crosstex Tyvek® Sterilization Pouches include a chemical indicator for verification of exposure and will maintain sterilization of instruments for up to 24 months.

- Single-use pouches for sterilizing reusable instruments
- Self-seal and heat-seal styles, as well as a range of sizes to accommodate most instruments
- Manufactured with Tyvek® material for superior tear strength and puncture resistance
- Pouches and rolls feature a convenient built-in green indicator that will turn yellow when exposed
- Meets ISO 11607 standards for pouch performance

**Tyvek® Self Seal & Heal Seal Sterilization Pouches**

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Description</th>
<th>Size</th>
<th>Process</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSP-180</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>3.5” x 5.25” (9 x 13 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
<tr>
<td>TSP-181</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>3.5” x 9” (9 x 23 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
<tr>
<td>TSP-182</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>4” x 24” (10 x 61 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 4/cs</td>
</tr>
<tr>
<td>TSP-183</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>5.25” x 10” (13 x 25 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
<tr>
<td>TSP-184</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>5” x 15” (13 x 38 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
<tr>
<td>TSP-185</td>
<td>Self-Seal Tyvek® Pouch</td>
<td>7.5” x 13” (19 x 33 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 5/cs</td>
</tr>
<tr>
<td>THP-282</td>
<td>Heat-Seal Tyvek® Pouch</td>
<td>4” x 9” (10 x 23 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
<tr>
<td>THP-283</td>
<td>Heat-Seal Tyvek® Pouch</td>
<td>6” x 12” (15 x 30 cm)</td>
<td>VH₂O₂</td>
<td>200/bx, 10/cs</td>
</tr>
</tbody>
</table>

**Tyvek® Roll Stock Tubing**

Manufactured to the same performance standards as our pouches, Crosstex Tyvek® tubing is designed to be cut to any length prior to packaging and then mechanically sealed or taped closed.

- Manufactured with Tyvek® material
- Comes in roll form for custom sizing
- Ideal for long or odd shaped instruments
- Individually packaged in 100 foot (30 meter) rolls

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Size</th>
<th>Process</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TST-004</td>
<td>4” x 100 ft (10 cm x 30 m)</td>
<td>VH₂O₂</td>
<td>10 rolls/cs</td>
</tr>
<tr>
<td>TST-006</td>
<td>6” x 100 ft (15 cm x 30 m)</td>
<td>VH₂O₂</td>
<td>10 rolls/cs</td>
</tr>
</tbody>
</table>

**Heat Sealers**

Compact and easy to operate, each heat sealer comes with instructions for use. Heat sealers are available in 18” (46 cm) and 24” (61 cm) sizes and are ready to use after a short warm up period.

- 1/2” (1.3 cm) seal in approximately two seconds
- If object exceeding 1/8” (3 mm) thickness is in the sealing area, the heat sealer will not operate, providing protection to employees
- Temperature setting can be changed to properly seal paper/poly and Tyvek® packaging products, as well as dust covers

<table>
<thead>
<tr>
<th>Crosstex Code</th>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS-002</td>
<td>18”</td>
<td>Each</td>
</tr>
<tr>
<td>MHS-003</td>
<td>24”</td>
<td>Each</td>
</tr>
</tbody>
</table>