

temizoda  
marketi



# INDICATORS

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# Who We Are?

## Our Aim

### Who We Are?

Temizoda Marketi started its business life in 1995 with İNŞEL Yapı ve Teknik Donatım Sistemleri Ltd. Sti. Specializing in cleanroom consultancy, design, implementation, documentation, and training, İNŞEL aims to meet the needs of personnel working in cleanrooms, sterile areas and critically controlled areas when it aims to provide turnkey services in the projects it implements.

İNŞEL, which has started to supply consumables in Cleanrooms, sterile areas and critically controlled areas through its representatives since 2004, has separated this department from its body in time in order not to cause confusion for our valued customers and to provide better service led to creation of Temizoda Marketi Laboratuvar Ürünleri A.Ş.

Today, as Temizoda Marketi, we are always with you, our valued customers, from product selection to training with our professional and experienced staff, while following the technology closely to provide you with the best service in the most accurate way.

### Our Aim

As Temizoda Marketi, we know our valued customers from the very beginning, from the installation of your hygienic area and Cleanrooms, and we know your needs. We are aware of how important it is to use the right material in the right place, and we are always at your side to supply you with the best quality and right products with the most appropriate solutions. We supply the highest technology products for you, and we are with you wherever you need, from training to after-sales user Support.

We know that choosing the right product is never the cheapest or the most expensive, and at this point, we help you with the most optimum benefit options...

# Why Temizoda Marketi?

*We know you; we know your needs and we are here to help you in the best way*

As Temizoda Marketi, we try to get to know you first and learn about your business, processes, and needs and offer you the most suitable solutions.

As Temizoda Marketi, we are always happy and proud to assist you with our trained and experienced staff.

We are working to give you the best and highest quality service with our experienced staff dedicated to each department.



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We are working to give you the best and highest quality service with our experienced staff dedicated to each department.

Choosing the right product is one of the most important issues in cleanrooms and critically controlled areas.

As Temizoda Marketi, we choose the most accurate and best quality products for your business in line with your demands and goals and recommend them by making them economical.

The materials used in critically controlled areas are as special and important as the areas you work in.

We know that the most suitable product for you is not always the most expensive or the cheapest, but it should be the best quality. In order to offer you the optimum solution, as Temizoda Marketi, we offer you the products you need by diversifying them with alternatives from different brands.

As Temizoda Marketi, we know the importance of the documentation of all materials you use in critically controlled areas, and we provide all documents, certificates, analysis reports, and all necessary documentation for you, that are necessary, during the installation phase, application and validation.

Temizoda Marketi does not only approach you as a product supplier. At the same time, it stands behind the products it sells and does not hesitate to take all necessary actions to eliminate it when you have any problems.

It does not sell products without the full support of the companies it represents. When there is a problem about the products, Temizoda Marketi approaches the issue as if using it himself and ensures that it is resolved as soon as possible. Thus, you will get maximum efficiency from the product you have bought.

As Temizoda Marketi, we would like to help you with all the products you need with our wide product range. Even if the product you need does not appear in our catalog, we try to find the product you are looking for with our partners abroad. Thus, we provide you with one-stop service as sole responsibility.

Temizoda Marketi does not only supply you with products, but also provides training, which is one of the greatest necessities of our time. No matter how accurate the product is in critically controlled areas, incorrect or unconscious use can cause unwanted problems. Upon request, it provides the necessary training for the products you have purchased, either by itself or by the manufacturer.

# Our Representatives

We are working with well-established companies that have proven their quality all over the world in auxiliary products used in clean rooms, sterile areas, laboratories and other critically controlled areas, to provide you with the best and right product.



GERMANY

- Cleanroom Consumables (Wipes, Gloves, Swabs, Mats,...)



IAB Reinraum-Produkte GmbH  
[www.iab-reinraumprodukte.de](http://www.iab-reinraumprodukte.de)



Protect2Clean  
[www.protect2clean.com](http://www.protect2clean.com)



AI Glove Systems  
[www.alglovesystems.de](http://www.alglovesystems.de)



Pfennig Reinigungstechnik GmbH  
[www.pfennig-reinigungstechnik.com](http://www.pfennig-reinigungstechnik.com)



ABEBA Spezialschuh-Ausstatter GmbH  
[www.abeba.com](http://www.abeba.com)



Bimos – Interstuhl Büromöbel GmbH  
[www.bimos.com](http://www.bimos.com)



UK

- Cleanroom Wipes with highest quality possible
- Cleanroom consumables, disinfectants and Alcohols
- Clean & Sterile Ppe For Life Science
- Cleanroom Disinfectants



Berkshire Corporation  
[www.berkshire.com](http://www.berkshire.com)



MicronClean Ltd  
[www.micronclean.com](http://www.micronclean.com)



Isofield  
[www.isofield.com](http://www.isofield.com)



Redditch Medical  
[www.redditchmedical.com](http://www.redditchmedical.com)



ITALY

- Cleanroom Goggles
- Cleanroom Filters



Univet  
[www.univetsafety.com](http://www.univetsafety.com)



Ipmlfilters  
[www.ipmlfilters.com](http://www.ipmlfilters.com)



CANADA

- Cleanroom Sticky Mats, Papers, Shoes and Glove Liners



Purus International Inc.  
[www.purusint.com](http://www.purusint.com)



MALAYSIA

- Cleanest Cleanroom Gloves



Riverstone Resources  
[www.riverstone.com.my](http://www.riverstone.com.my)



BELGIUM

- Cleanroom Garments



Alsico High Tech  
[www.alsicohightech.com](http://www.alsicohightech.com)



POLAND

- Cleanroom Mats



Noopli  
[www.noopli.com](http://www.noopli.com)



ABD

- Cleanroom Indicators



True Indicating Products  
[www.trueindicating.com](http://www.trueindicating.com)

- Cleanroom Tapes, Labels



Cleanroomtape  
[www.cleanroomtape.com](http://www.cleanroomtape.com)

# Our Representatives

bimos

UNIVET  
OPTICAL TECHNOLOGIES

ISOfield  
Protecting Life Sciences

alsico  
hightech

micronclean  
QUALITY TODAY. INNOVATION TOMORROW.

PURUS

Berkshire  
ENGINEERED GLASS

PROTECT  
2CLEAN

IAB  
Reinraum-Produkte GmbH

AL Glove  
Systems

PFENNIG  
REINIGUNGSTECHNIK

ABEBA®

noopli

TRUE INDICATING  
PRODUCTS

Redditch  
Medical  
Innovative thinking

UltraTape®  
Adhesive Tape & Labels for Critical Environments

IIPM

## ➤ Cleanroom Garments

- Coveralls (Reusable/Disposable & Sterile/Non-Sterile)
- Coats (Reusable/Disposable & Sterile/Non-Sterile)
- Bonnets (Reusable/Disposable & Sterile/Non-Sterile)
- Hats (Reusable)
- Hoods (Reusable/Disposable & Sterile/Non-Sterile)
- Overshoes (Reusable/Disposable & Sterile/Non-Sterile)
- Over Boots (Reusable/Disposable & Sterile/Non-Sterile)
- Socks (Reusable/Disposable & Sterile/Non-Sterile)
- Masks (Reusable/Disposable & Sterile/Non-Sterile)
- Shoes

## ➤ Cleanroom Gloves

- Sterile Gloves (Latex & Nitrile)
- Non-Sterile Gloves (Latex, Nitrile, Polyethylene, Vinyl)
- Finger Gloves (Latex & Nitrile)
- Knitted Gloves

## ➤ Cleanroom Wipes

- Sterile Wipes
- Dry Wipes
- Pre-Saturated Wipes
- Sponge Wipes

## ➤ Swabs

## ➤ Cleanroom Mats / Floorings

- Sticky Mats
- Permanent Mats

## ➤ Cleanroom Stationary

- Notebooks (Rule, Grid, A4, A5)
- Papers (A3, A4, A5)
- Pens (Sterile & Non-Sterile, IPA Resist.)
- DCR Pads
- Tapes
- Rolls

## ➤ Cleanroom Cleaning Equipment

- Mops (Single use / Re-Usable)
- Mop Systems
- Mop Heads
- Vacuum Cleaners
- Isolators

## ➤ Cleanroom Disinfection Systems

- Disinfection Systems (Wet - Dry)
- Disinfectants
- Disinfection Service
- Alcohols

## ➤ Cleanroom Goggles

## ➤ Cleanroom Filters

- HVAC Filters
- Hepa Filters
- Water System Filters (RO System)
- 100% Endotoxin Removal Filters
- Cross Flow Filters

## ➤ Cleanroom Furniture

- Work Benches
- Racks
- Chairs
- Transport Trolleys

## ➤ Cleanroom Cabinets

- LF Units
- Bio-Safety Cabinets

## ➤ Air Shower

## ➤ Isolators

## ➤ Biological Indicators



CODES CDBN-1

## Chemical Process Indicators (CPIs) ISO 11140-1 TYPE 1

### Product Description

True Indicating Dry Heat and  
Depyrogenation Chemical Process  
Indicator labels are manufactured with:

- Water-based Indicating Ink which contains no lead or other toxic heavy metals
- Latex-free pressure sensitive adhesive

The Indicators are designed to provide confirmation of exposure to a dry heat or depyrogenation process through color transition from Blue to Dark. The Indicators may be used to monitor dry heat processes at  $\geq 160^{\circ}\text{C}$  and Depyrogenation processes up to  $250^{\circ}\text{C}$ . The color transition which occurs after dry heat exposure is designed to occur in compliance with ISO 11140-1 and display an irreversible color transition which is distinct allowing for processed from unprocessed items to be easily distinguished.

True Indicating offers a standard configuration which may be used in either dry heat or Depyrogenation processes; see table below. In addition to the standard configuration, True Indicating will manufacture custom Indicators and labels to meet your needs.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY        | INDICATOR DIMENSION | UNEXPOSED                                                                           | EXPOSED                                                                               | EXPOSED - DEPYROGENATION                                                              |
|------------------|-----------------|---------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CEVG-1           | 5,000 Dots/Roll | 12 mm (1/2")        |  |  |  |



CODES CDBN-14

## Multicritical Process Variable Indicator ISO 11140-1 TYPE 4

### Product Description

Type 4 Indicators are designed to react to two or more of the critical process variables. For dry heat, the critical process variables are time and temperature.

True Indicating's Product Code CDBN-14, indicates exposure to a dry heat process at the stated value (SV) of  $160^{\circ}\text{C}$  for 40 minutes.

The Indicator will transition from Blue to Dark; the transition color may vary depending on the load configuration, length and conditions of exposure. A color transition from Blue to Dark provides indication of exposure to a dry heat process where two or more of the critical process variables were met for sterilization.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the Indicator to packages during exposure or for record keeping purposes after exposure.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION          | UNEXPOSED                                                                             | EXPOSED                                                                               |
|------------------|----------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CDBN-14          | 250 Strip/Pack | 19 mm x 64 mm (0.75" x 2.5") |  |  |



CODES

SA-06DH

## Biological Indicators

ISO 11140-1 TYPE 5

## Product Description

True Indicating Dry Heat Biological Indicators (BIs) are:

- Compliant with ISO 11138-1 and 11138-4
- Pure high quality *Bacillus atrophaeus*, Cell Line 9372 Spores
- Consistent quality for Population, Purity and Resistance

The Indicators are designed to provide assurance of effective sterilization after exposure to a dry heat process. The Indicators may be used to monitor processes from 160°C - 180°C for equipment and process validation or routine monitoring. The Indicators are labeled for laboratory or industrial use only.

True Indicating offers standard configurations of BIs and Inoculated Carriers; see tables below. In addition to standard configurations, True Indicating will manufacture custom Indicators to meet your needs.

## SPORE STRIPS

| REF-PRODUCT CODE | POPULATION             | DIMENSIONS   | PACKAGING         |
|------------------|------------------------|--------------|-------------------|
| ST-06DH          | 10 <sup>6</sup> /strip | 6 mm x 30 mm | Glassine Envelope |



CODES

AAD-06

## Dry Heat Ampule

## Product Description

True Indicating Dry Heat Biological Indicators (BIs) are:

- Compliance with ISO 11138-1 and 11138-4
- Reduced Incubation Time of 72 Hours when used in Conjunction with True Indicating's Modified Growth Medium
- Distinct color transition of media from Green to Yellow when positive for Growth

The Ampules consist of a hermetically sealed glass ampule which contains a carrier inoculated with *Bacillus atrophaeus* Cell Line 9372 Spores with a known population and resistance level. The Ampules are designed to be used in conjunction with modified media that transitions from the initial color to yellow in the presence of bacterial growth. The Ampules offer a reduced incubation period of 48 hours and provide assurance of effective sterilization after exposure to a dry heat process. The Ampules are ideal for monitoring liquid sterilization cycles but may also be utilized in dry loads up to 250°C for equipment and process validations and routine monitoring.

The Ampules are labeled for laboratory or industrial use only.

## SPORE STRIPS

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS      | PACKAGING                                   |
|------------------|-----------------|-----------------|---------------------------------------------|
| AAD-06           | 10 <sup>6</sup> | 58 mm x 10.6 mm | 50 Ampules/Box + 50 Tubes of Modified Media |



**CODES** UA-06, UA-07 and UA-08

## Spore Suspensions

### Product Description

True Indicating Spore Suspensions are:

- Compliant with ISO 11138-1 and 11138-2
- Packaged in pharmaceutical vials with caps and septum which allow access via a pipette or syringe

Spore Suspensions are designed for use in direct inoculation or other studies where assurance of effective sterilization after exposure to a dry heat process is required. Custom population levels and other diluents including Ethanol available upon request.

### SPORE SUSPENSIONS

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UA-06            | 10 <sup>6</sup> /0.1 mL | 10 mL  | 24 Months  |
| UA-07            | 10 <sup>7</sup> /0.1 mL |        |            |
| UA-08            | 10 <sup>8</sup> /0.1 mL |        |            |



**CODES** GGM-50R / GGM-100

## Modified Growth Medium

Prepared growth medium consists of an exclusively formulated Tryptic Soybean Broth (TSB) modified with a pH indicator. The pH indicator transitions from green to yellow in the presence of *Bacillus atrophaeus* bacterial growth allowing for a reduced incubation period when used in conjunction with True Indicating BIs and Inoculated Carriers.

Modified growth medium offers a reduced incubation period of 48 hours for BIs and Inoculated Carriers of *Bacillus atrophaeus* when exposed to Ethylene Oxide (EO), dry heat or Vaporized Hydrogen Peroxide (VH2O2) processes.

### SPORE SUSPENSIONS

| REF-PRODUCT CODE | TUBE DIMENSIONS   | VOLUME          | PACKAGING                        | SHELF LIFE |
|------------------|-------------------|-----------------|----------------------------------|------------|
| GGM-50R          | 16.7 mm x 62.8 mm | 4.5 mL ± 0.5 mL | 50 Tubes + Reusable Holding Rack | 12 Months  |
| GGM-100          |                   |                 | 100 Tubes                        |            |



**CODES** MA-06 / MAB-06



**CODES** DA-06 / DA3-06



**CODES** TA-06 / TAB-06

## Inoculated Carriers

ISO 11140-1 TYPE 4

## Product Description

True Indicating EO Biological Indicators are:

- Compliant with ISO 11138-1
- Pure high quality *Bacillus atrophaeus*, Cell Line 9372 Spores
- Consistent quality for Population, Purity and Resistance

The Indicators are designed to provide assurance of effective sterilization after exposure to a dry heat process.

The Indicators may be used to monitor processes from 160°C – 180°C for equipment and process validation or routine monitoring.

The Indicators are labeled for laboratory or industrial use only.

### MINI-SPORE STRIPS

| REF-PRODUCT CODE | VOLUME                 | DIMENSIONS   | PACKAGING         |
|------------------|------------------------|--------------|-------------------|
| MA-06            | 10 <sup>6</sup> /strip | 2 mm x 10 mm | Glassine Envelope |
| MAB-06           |                        |              | Bulk              |

### SPORE DISCS

| REF-PRODUCT CODE | VOLUME                | DIMENSIONS | PACKAGING |
|------------------|-----------------------|------------|-----------|
| DA-06            | 10 <sup>6</sup> /disc | 6 mm       | Bulk      |
| DA3-06           |                       | 3 mm       |           |

### SPORE THREADS

| REF-PRODUCT CODE | VOLUME                  | DIMENSIONS | PACKAGING |
|------------------|-------------------------|------------|-----------|
| TA-06            | 10 <sup>6</sup> /thread | 30 mm      | Bulk      |
| TAB-06           |                         |            |           |



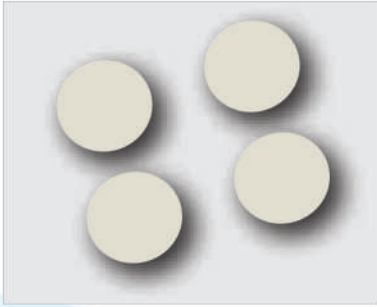
Biological Indicators (BIs)  
SPORE STRIPS 24 Month Shelf Life

| SPORE STRIPS - 24 Month Shelf Life   100/pack       |                  |                  |                 |                       |                          |           |
|-----------------------------------------------------|------------------|------------------|-----------------|-----------------------|--------------------------|-----------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING             | PROCESS                  |           |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 6 x 30 mm strip  | ST-04            | 10 <sup>4</sup> | Glassine<br>Envelopes | Steam                    |           |
|                                                     |                  | ST-05            | 10 <sup>5</sup> |                       |                          |           |
|                                                     |                  | ST-06            | 10 <sup>6</sup> |                       |                          |           |
|                                                     |                  | STF-06           | 10 <sup>6</sup> |                       |                          |           |
| Bacillus subtilis<br>Cell Line 35021                |                  | SB5-06           | 10 <sup>6</sup> |                       | Low Temperature<br>Steam |           |
| Bacillus atrophaeus<br>Cell Line 9372               |                  | SA-04            | 10 <sup>4</sup> |                       | EO                       |           |
|                                                     |                  | SA-05            | 10 <sup>5</sup> |                       |                          |           |
|                                                     |                  | SA-06            | 10 <sup>6</sup> |                       |                          |           |
|                                                     |                  | SA-06DH          | 10 <sup>6</sup> |                       |                          |           |
| Bacillus pumilus<br>Cell Line 27142                 |                  | SBP-06           | 10 <sup>6</sup> |                       | Dry Heat                 |           |
|                                                     |                  | SBP-07           | 10 <sup>7</sup> |                       |                          | Radiation |
|                                                     |                  | SBP-08           | 10 <sup>8</sup> |                       |                          |           |



Biological Indicators (BIs)  
MINI SPORE STRIPS 24 Month Shelf Life

| MINI SPORE STRIPS - 24 Month Shelf Life   100/pack  |                  |                  |                 |                       |             |
|-----------------------------------------------------|------------------|------------------|-----------------|-----------------------|-------------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING             | PROCESS     |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 2 x 10 mm strip  | MT-06            | 10 <sup>6</sup> | Glassine<br>Envelopes | Steam       |
|                                                     |                  | MTB-06           |                 | Bulk                  |             |
| Bacillus atrophaeus<br>Cell Line 9372               |                  | MA-06            |                 | Glassine<br>Envelopes | EO/Dry Heat |
|                                                     |                  | MAB-06           |                 | Bulk                  |             |



## Biological Indicators (BIs)

SPORE DISCS - 24 Month Shelf Life (Paper) | 12 Month Shelf Life

| SPORE DISCS - 24 Month Shelf Life (Paper)   12 Month Shelf Life (Steel) |                            |                  |                                                 |                                                 |                                |
|-------------------------------------------------------------------------|----------------------------|------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------|
|                                                                         | DIMENSIONS/ TYPE           | REF-PRODUCT CODE | POPULATION                                      | PACKAGING                                       | PROCESS                        |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953                     | 6 mm - Paper               | DT-05            | 10 <sup>5</sup>                                 | Bulk                                            | Steam                          |
|                                                                         |                            | DT-06            | 10 <sup>6</sup>                                 |                                                 |                                |
|                                                                         | 3 mm - Paper               | DT3-06           |                                                 |                                                 |                                |
|                                                                         | 6 mm - Steel               | SDTM-06          |                                                 | Tyvek/Mylar                                     | VH <sub>2</sub> O <sub>2</sub> |
|                                                                         | 100/pack                   |                  | Tyvek                                           |                                                 |                                |
|                                                                         | 6 mm - Steel               | TRI-7953         |                                                 | 10 <sup>4</sup> 10 <sup>5</sup> 10 <sup>6</sup> |                                |
|                                                                         | 50 of each population/pack |                  |                                                 | Tyvek                                           |                                |
|                                                                         | 6 mm - Steel               | SDTT-06          | 10 <sup>6</sup>                                 |                                                 |                                |
| SDTM-06                                                                 |                            | Tyvek/Mylar      |                                                 |                                                 |                                |
| Geobacillus<br>stearothermophilus<br>Cell Line 12980                    | 6 mm - Steel               | SDGT-04          | 10 <sup>4</sup>                                 | Tyvek                                           | VH <sub>2</sub> O <sub>2</sub> |
|                                                                         |                            | SDGT-06          | 10 <sup>6</sup>                                 |                                                 |                                |
|                                                                         | 100/pack                   |                  |                                                 |                                                 |                                |
|                                                                         | 6 mm - Steel               | TRI-12980        | 10 <sup>4</sup> 10 <sup>5</sup> 10 <sup>6</sup> |                                                 |                                |
|                                                                         | 50 of each population/pack |                  |                                                 |                                                 |                                |
| Bacillus atrophaeus<br>Cell Line 9372                                   | 6 mm - Paper               | DA-06            | 10 <sup>6</sup>                                 | Bulk                                            | EO/Dry Heat                    |
|                                                                         | 3 mm - Paper               | DA3-06           |                                                 |                                                 |                                |
|                                                                         | 6 mm - Steel               | TRI-12980        |                                                 | Tyvek/Mylar                                     | VH <sub>2</sub> O <sub>2</sub> |
|                                                                         |                            | SDAT-06          |                                                 |                                                 |                                |



## Biological Indicators (BIs)

SPORE THREADS - 24 Month Shelf Life

| SPORE THREADS - 24 Month Shelf Life   100/pack      |                  |                  |                 |           |             |
|-----------------------------------------------------|------------------|------------------|-----------------|-----------|-------------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING | PROCESS     |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 30 mm - Cotton   | TTB-06           | 10 <sup>6</sup> | Bulk      | Steam       |
|                                                     |                  | TT-06            |                 | Glassine  |             |
| Bacillus atrophaeus<br>Cell Line 9372               |                  | TAB-06           |                 | Bulk      | EO/Dry Heat |
|                                                     |                  | TA-06            |                 | Glassine  |             |



Biological Indicators (BIs)  
SPORE WIRES - 12 Month Shelf Life

| SPORE WIRES - 12 Month Shelf Life   100/pack        |                  |                  |                 |           |                                |
|-----------------------------------------------------|------------------|------------------|-----------------|-----------|--------------------------------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING | PROCESS                        |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 38 mm - Steel    | WTB-06           | 10 <sup>6</sup> | Bulk      | Steam                          |
|                                                     |                  | WT-06            |                 | Glassine  |                                |
|                                                     |                  | WTH-06           |                 | Bulk      | VH <sub>2</sub> O <sub>2</sub> |
| Bacillus atrophaeus<br>Cell Line 9372               |                  | WAB-06           |                 | Bulk      | EO/Dry Heat                    |
|                                                     |                  | WA-06            |                 | Glassine  |                                |



Biological Indicators (BIs)  
SPORE AMPULES - 24 Month Shelf Life

| SPORE AMPULES - 24 Month Shelf Life                 |                  |                              |                 |                              |         |
|-----------------------------------------------------|------------------|------------------------------|-----------------|------------------------------|---------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE             | POPULATION      | PACKAGING                    | PROCESS |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 1 mL             | AT-04                        | 10 <sup>4</sup> | 50 Ampules                   | Steam   |
|                                                     |                  | AT-05                        | 10 <sup>5</sup> |                              |         |
|                                                     |                  | AT-06                        | 10 <sup>6</sup> |                              |         |
|                                                     | 4 mL             | ATL-05                       | 10 <sup>5</sup> |                              |         |
|                                                     |                  | ATL-06                       | 10 <sup>6</sup> |                              |         |
|                                                     | 1 mL             | AT-0510                      | 10 <sup>5</sup> | 50 + 10<br>Negative Controls |         |
|                                                     |                  | AT-0610                      | 10 <sup>6</sup> |                              |         |
|                                                     | 0,7 mL           | ATM-06                       | 10 <sup>6</sup> | 50 + 5<br>Negative Controls  |         |
| AB5-06                                              |                  | 50 + 10<br>Negative Controls |                 | Low Temperature<br>Steam     |         |
| Bacillus atrophaeus<br>Cell Line 9372               |                  |                              |                 |                              |         |
| Negative Controls                                   | 1 mL             | AT10-NC                      | ----            | 10 Negative Controls         |         |



**Biological Indicators (BIs)**  
**DRY HEAT AMPULES - 24 Month Shelf Life**

## DRY HEAT AMPULES - 24 Month Shelf Life

|                                       | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING                          | PROCESS                     |
|---------------------------------------|------------------|------------------|-----------------|------------------------------------|-----------------------------|
| Bacillus atrophaeus<br>Cell Line 9372 | 47 mm x 10.6 mm  | AAD-06           | 10 <sup>6</sup> | 50 Ampules +<br>50 Tubes of Medium | Dry Heat/<br>Depyrogenation |



**Biological Indicators (BIs)**  
**TUBED GROWTH MEDIUM - 12 Month Shelf Life**

## TUBED GROWTH MEDIUM - 12 Month Shelf Life

|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | PACKAGING     | PROCESS                                                 |
|-----------------------------------------------------|------------------|------------------|---------------|---------------------------------------------------------|
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 4.5 mL/Tube      | PGM-100          | 100 Tubes/Box | Steam, VH <sub>2</sub> O <sub>2</sub> /<br>Plasma       |
| Bacillus atrophaeus<br>Cell Line 9372               |                  | GGM-100          |               | EO, Dry Heat,<br>VH <sub>2</sub> O <sub>2</sub> /Plasma |



Self-Contained  
Biological Indicator

| ORDER INFORMATION                                   |                  |                  |                 |           |                                         |
|-----------------------------------------------------|------------------|------------------|-----------------|-----------|-----------------------------------------|
|                                                     | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING | PROCESS                                 |
| Geobacillus<br>stearothermophilus<br>Cell Line 7953 | 8.3 x 46 mm      | MSCST-05         | 10 <sup>5</sup> | 100/Box   | Steam                                   |
|                                                     |                  | MSCST-06         | 10 <sup>6</sup> |           | VH <sub>2</sub> O <sub>2</sub> / Plasma |
|                                                     |                  | MSCPT-06         |                 |           |                                         |
|                                                     | 9.5 x 48 mm      | SCST-05          | 10 <sup>6</sup> | 50/Box    | Steam                                   |
|                                                     |                  | SCST-06          |                 |           |                                         |
| Bacillus atrophaeus<br>Cell Line 9372               | 8.3 x 46 mm      | MSCEA-06         | 10 <sup>5</sup> | 100/Box   | EO                                      |
|                                                     | 9.5 x 48 mm      | SCEA-06          |                 | 50/Box    |                                         |



**Spore Suspensions**  
**24 Month Shelf Life**

## ORDER INFORMATION

|                                                  | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION      | PACKAGING | PROCESS                  |
|--------------------------------------------------|------------------|------------------|-----------------|-----------|--------------------------|
| Geobacillus stearothermophilus<br>Cell Line 7953 | 10 mL            | UT-04            | 10 <sup>4</sup> | Vial      | Steam                    |
|                                                  |                  | UT-05            | 10 <sup>5</sup> |           |                          |
|                                                  |                  | UT-06            | 10 <sup>6</sup> |           |                          |
|                                                  |                  | UT-07            | 10 <sup>7</sup> |           |                          |
|                                                  |                  | UT-08            | 10 <sup>8</sup> |           |                          |
| Bacillus subtilis<br>Cell Line 35021             |                  | UB5-06           | 10 <sup>6</sup> |           | Low Temperature<br>Steam |
|                                                  |                  | UB5-07           | 10 <sup>7</sup> |           |                          |
|                                                  |                  | UB5-08           | 10 <sup>8</sup> |           |                          |
| Bacillus atrophaeus<br>Cell Line 9372            |                  | UA-06            | 10 <sup>6</sup> |           | EO/Dry Heat              |
|                                                  |                  | UA-07            | 10 <sup>7</sup> |           |                          |
|                                                  |                  | UA-08            | 10 <sup>8</sup> |           |                          |
| Bacillus pumilus<br>Cell Line 27142              |                  | UBP-06           | 10 <sup>6</sup> |           | Radiation                |
|                                                  |                  | UBP-07           | 10 <sup>7</sup> |           |                          |
|                                                  |                  | UBP-08           | 10 <sup>8</sup> |           |                          |

## QUALITY CONTROL – Growth Promotion Suspensions

|                                                  | DIMENSIONS/ TYPE | REF-PRODUCT CODE | POPULATION          | PROCESS |
|--------------------------------------------------|------------------|------------------|---------------------|---------|
| Geobacillus stearothermophilus<br>Cell Line 7953 | 10 mL            | UT-01            | <100<br>CFU's/0.1mL | Vial    |
| Bacillus atrophaeus<br>Cell Line 9372            |                  | UA-01            |                     |         |
|                                                  |                  | UB6-01           |                     |         |
| Bacillus subtilis<br>Cell Line 6633              |                  | UB6-06           | 10 <sup>6</sup>     |         |
|                                                  |                  | UB6-07           | 10 <sup>7</sup>     |         |
|                                                  |                  | UB6-08           | 10 <sup>8</sup>     |         |

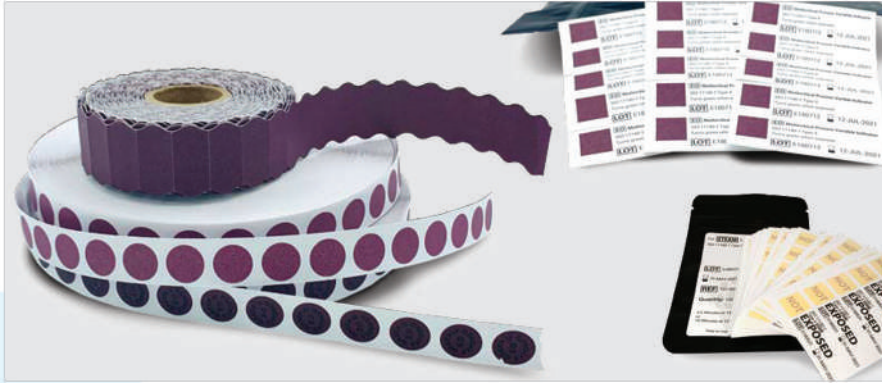


Chemical Indicators  
PLAIN DOTS - TYPE 1

| PLAIN DOTS - TYPE 1 |                  |                    |                         |            |
|---------------------|------------------|--------------------|-------------------------|------------|
|                     | REF-PRODUCT CODE | COLOR TRANSITION   | CONFIGURATION           | SHELF LIFE |
| Steam               | CSBP-1           | Blue to Pink       | 12.7 mm<br>5,000 / Roll | 3 Years    |
|                     | CSPN-1           | Pink to Dark       |                         |            |
| Dry Heat            | CDBN-1           | Blue to Dark Green |                         |            |
| Depyrogenation      |                  | Blue to Dark Gray  |                         |            |
| EO                  | CEVG-1           | Violet to Green    |                         |            |
| Radiation           | CRYR-1           | Yellow to Red      |                         |            |

| METO LABELS - TYPE 1 |                  |                  |                       |            |
|----------------------|------------------|------------------|-----------------------|------------|
|                      | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION         | SHELF LIFE |
| EO                   | CEVG-2           | Violet to Green  | 25 mm<br>1,500 / Roll | 3 Years    |
| Radiation            | CRYR-2           | Yellow to Red    | 25 mm<br>1,000 / Roll |            |
|                      | CRYR-4           |                  |                       |            |

| IMPRINTED - TYPE 1                     |                  |                  |                              |            |
|----------------------------------------|------------------|------------------|------------------------------|------------|
|                                        | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION                | SHELF LIFE |
| Steam                                  | CEVG-3           | Violet to Green  | 12.7 mm Dot<br>5,000 / Roll  | 3 Years    |
| VH <sub>2</sub> O <sub>2</sub> /Plasma | CPYB-1           | Yellow to Blue   |                              |            |
| Radiation                              | CRYR-3           | Yellow to Red    | 14 mm Square<br>5,000 / Roll |            |
|                                        | CRYR-5           |                  |                              |            |



Chemical Indicators  
CI STRIPST

## CI STRIPS - TYPE 1

|                                        | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION                          | SHELF LIFE |
|----------------------------------------|------------------|------------------|----------------------------------------|------------|
| VH <sub>2</sub> O <sub>2</sub> /Plasma | CPVG-11          | Brown to Green   | 19 x 64 mm<br>250 Strips-Labels / Pack | 3 Years    |

## CI STRIPS - TYPE 4

|                     | REF-PRODUCT CODE | COLOR TRANSITION   | CONFIGURATION                          | SHELF LIFE |
|---------------------|------------------|--------------------|----------------------------------------|------------|
| Steam               | CSYN-14          | Yellow to Dark     | 19 x 64 mm<br>250 Strips-Labels / Pack | 3 Years    |
| Dry Heat            | CDBN-14          | Blue to Dark Green |                                        |            |
| Ethylene Oxide (EO) | CEVG-14          | Violet to Green    |                                        |            |



Integrators, Emulators and Bowie Dick  
INTEGRATOR STRIPS  
EMULATOR STRIPS

## INTEGRATOR STRIPS - TYPE 5

|       | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION                          | SHELF LIFE |
|-------|------------------|------------------|----------------------------------------|------------|
| Steam | CSPN-15          | Pink to Dark     | 19 x 64 mm<br>250 Strips-Labels / Pack | 3 Years    |

## EMULATOR STRIPS - TYPE 6

|       | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION                          | SHELF LIFE |
|-------|------------------|------------------|----------------------------------------|------------|
| Steam | CSBN-16          | Blue to Dark     | 19 x 64 mm<br>250 Strips-Labels / Pack | 3 Years    |



**Chemical Indicators**  
**BOWIE DICK TEST PACKS**  
**AUTOCLAVE TAPE**

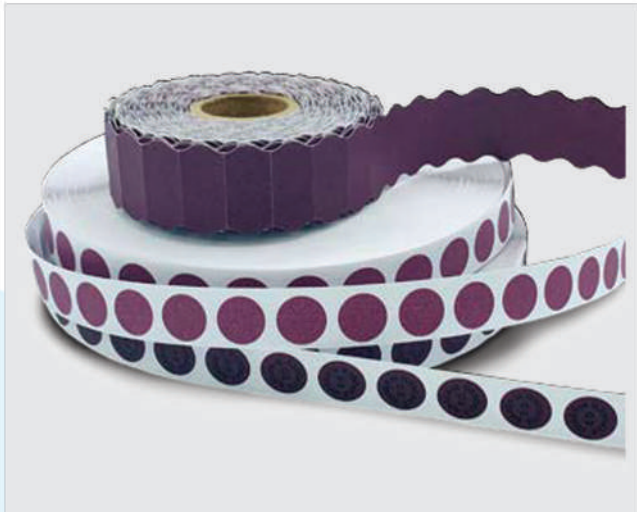
| BOWIE DICK TEST PACKS |                  |                  |                           |            |
|-----------------------|------------------|------------------|---------------------------|------------|
|                       | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION             | SHELF LIFE |
| Steam                 | BD-1X            | Blue to Pink     | 12x12x1.6 cm<br>20 / Case | 5 Years    |

| AUTOCLAVE TAPE                                                   |                  |                  |                                 |            |
|------------------------------------------------------------------|------------------|------------------|---------------------------------|------------|
|                                                                  | REF-PRODUCT CODE | COLOR TRANSITION | CONFIGURATION                   | SHELF LIFE |
| Steam                                                            | CSWN-1T          | Light to Dark    | 18mm x 50 m<br>12 Rolls / Case  | 2 Years    |
| Ethylene Oxide (EO) or<br>VH <sub>2</sub> O <sub>2</sub> /Plasma | CEVG-1T          | Violet to Green  | 19 mm x 55 m<br>12 Rolls / Case | 3 Years    |
| VH <sub>2</sub> O <sub>2</sub> /Plasma                           | CPRY-1T          | Red to Yellow    |                                 |            |



**Chemical Indicators**  
**DRY BLOCK INCUBATORS**

| ORDER INFORMATION |                      |
|-------------------|----------------------|
| REF-PRODUCT CODE  | PLUG TYPE            |
| INC-AM            | American, 110V       |
| INC-EU            | European 220V        |
| INC-UK            | United Kingdom, 220V |



CODES CEVG-1 / CEVG-2 /CEVG-3

## Chemical Process Indicators (CPIs)

ISO 11140-1 TYPE 1

### Product Description

True Indicating EO Chemical

Process Indicator labels are manufactured with:

- Water-based Indicating Ink which contains no lead or other toxic heavy metals
- Latex-free pressure sensitive adhesive

The Indicators are designed to provide confirmation of exposure to an EO process through color transition from Purple to Green. The Indicators may be used to monitor EO exposures using 100% EO or gas mixtures. The color transition is designed to occur in compliance with ISO 11140-1 and display an irreversible change which is distinct allowing for processed from unprocessed items to be easily distinguished.

True Indicating offers three (3) standard configurations; see table below. In addition to standard configurations, True Indicating will manufacture custom Indicators and Labels to meet your needs.

### ORDER INFORMATION

| REF-PRODUCT CODE                                                                           | QUANTITY                                             | INDICATOR DIMENSION                 | UNEXPOSED                                                                             | EXPOSED                                                                               |
|--------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CEVG-1    | 5,000 Dots/Roll                                      | 12.7 mm (1/2")                      |    |    |
| CEVG-2  | 1,500 / Roll                                         | Meto Label<br>25 x 12 mm (1 x 0.5") |  |  |
| CEVG-3  | 5,000 Dots/Roll Each Imprinted with Green is Exposed | 12.7 mm (1/2")                      |  |  |



CODES CEVG-14

## Multicritical Process Variable Indicator

ISO 11140-1 TYPE 4

Type 4 Indicators are designed to react to two or more of the critical process variables. For EO, the critical process variable are time or length of exposure, temperature, relative humidity (RH) and EO concentration. True Indicating's Product Code CEVG-14, indicates exposure to an EO process at the stated value (SV) of 600mg/L at 54°C and 60% RH for 20 minutes.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the strip to packages during exposure and /or for record keeping purposes after exposure.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION              | UNEXPOSED                                                                             | EXPOSED                                                                               |
|------------------|----------------|----------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CEVG-14          | 250 Strip/Pack | 19 mm x 70 mm<br>(0.75" x 2.75") |  |  |



## Integrating Indicator ISO 11140-1 TYPE 5

### Product Description

Type 5 Indicators are designed to react to all critical process variables including time, temperature, RH and EO Concentration. True Indicating's Product Code CEVG-15 indicates exposure to an EO Process at the SV of 600 mg/L at 54°C and 60% RH for 40 minutes.

The backing of the strips is removable which exposes latex-free adhesive for easy application of the strip to packages during exposure or for record keeping purposes after exposure.

CODES CEVG-15

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION              | UNEXPOSED | EXPOSED |
|------------------|----------------|----------------------------------|-----------|---------|
| CEVG-15          | 250 Strip/Pack | 19 mm x 70 mm<br>(0.75" x 2.75") |           |         |



## Indicator Tape

### Product Description

The Tape is used for closing packages, instrument wraps, and other items requiring EO sterilization. The EO tape can be utilized for identifying processed and non-processed items. The tape can adhere to paper, plastic, glass, metal, and non-woven materials.

CODES EO-TAPE

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY    | INDICATOR DIMENSION                 | UNEXPOSED | EXPOSED |
|------------------|-------------|-------------------------------------|-----------|---------|
| EO-TAPE          | 12 Rolls/Cs | 19 mm x 50 mm<br>(0.75" x 55 yards) |           |         |



**CODES** SA-04 / SA-05 / SA-06



**CODES** MA-06 / MAB-06



**CODES** DA-06 / DA3-06



**CODES** TA-06 / TAB-06



**CODES** WA-06 / WAB-06

## Biological Indicator and Inoculated Carriers

### Product Description

True Indicating EO Biological Indicators are:

- Compliant with ISO 11138-1 and 11138-2
- Pure high quality *Bacillus atrophaeus* spores, Cell Line 9372 in Water For Injection (WFI) only
- Consistent in quality Indicator to Indicator for Population, Purity and Resistance

The Indicators are designed to provide assurance of effective sterilization after exposure to an EO process. The Indicators may be used to monitor processes with 100% or EO gas mixtures for equipment and process validation or routine monitoring. The Indicators are labeled for laboratory/industrial use only.

True Indicating offers standard configurations of Biological Indicator and Inoculated Carriers; see table below. In addition to standard configurations, True Indicating will manufacture custom Indicators to meet your needs.

### SPORE STRIPS

| REF-PRODUCT CODE | POPULATION             | DIMENSIONS   | PACKAGING         |
|------------------|------------------------|--------------|-------------------|
| SA-04            | 10 <sup>4</sup> /strip | 6 mm x 30 mm | Glassine Envelope |
| SA-05            | 10 <sup>5</sup> /strip |              |                   |
| SA-06            | 10 <sup>6</sup> /strip |              |                   |

### MINI-SPORE STRIPS

| REF-PRODUCT CODE | POPULATION             | DIMENSIONS   | PACKAGING         |
|------------------|------------------------|--------------|-------------------|
| MA-06            | 10 <sup>6</sup> /strip | 2 mm x 10 mm | Glassine Envelope |
| MAB-06           |                        |              | Bulk              |

### SPORE DISCS

| REF-PRODUCT CODE | POPULATION            | DIMENSIONS | PACKAGING |
|------------------|-----------------------|------------|-----------|
| DA-06            | 10 <sup>6</sup> /disc | 6 mm       | Bulk      |
| DA3-06           |                       | 3 mm       |           |

### SPORE THREADS

| REF-PRODUCT CODE | POPULATION              | DIMENSIONS | PACKAGING         |
|------------------|-------------------------|------------|-------------------|
| TA-06            | 10 <sup>6</sup> /thread | 30 mm      | Glassine Envelope |
| TAB-06           |                         |            | Bulk              |

### SPORE WIRES

| REF-PRODUCT CODE | POPULATION            | DIMENSIONS  | PACKAGING         |
|------------------|-----------------------|-------------|-------------------|
| WA-06            | 10 <sup>6</sup> /wire | 38 x 1.5 mm | Glassine Envelope |
| WAB-06           |                       |             | Bulk              |



**CODES** MSCEA-06 / SCEA-06

## Self-Contained Biological Indicator

### Product Description

True Indicating EO SCBIs offer:

- Compliance with ISO 11138-1 and 11138-2
- Reduced Incubation Time of 48 Hours
- Distinct color transition of media from Green to Yellow when Positive for Growth

The Indicators are designed to provide assurance of effective sterilization after exposure to an EO process. The Indicators may be used to monitor processes with 100% or EO gas mixtures for equipment and process validation or routine monitoring. The self-sealing design of the Rigid SCBIs, SCEA-06, offer a better option for extended incubation up to 7 days without concern of evaporation or color reversion of positive units. The Indicators are labeled for laboratory/industrial use only.

### SCBIs

| REF-PRODUCT CODE | POPULATION            | DIMENSIONS     | PACKAGING |
|------------------|-----------------------|----------------|-----------|
| MSCEA-06         | 10 <sup>6</sup> /SCBI | 8.3 mm x 46 mm | 100/Box   |
| SCEA-06          |                       | 9.5 mm x 48 mm | 50/Box    |



**CODES** UA-06 / UA-07 / UA-08

## Spore Suspensions

### Product Description

True Indicating Spore Suspensions are:

- Compliant with ISO 11138-1, 11138-2 and USP
- Packaged in pharmaceutical vials with caps and septum allow access via a pipette or syringe
- Pure suspensions of Bacillus atrophaeus, Cell Line 9372 suspended in Water For Injection (WFI)

The Spore Suspensions are designed for use in direct inoculation or other studies where assurance of effective sterilization after exposure to an EO process is required.

Custom population levels and other diluents including Ethanol available upon request.

### SPORE SUSPENSIONS

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UA-06            | 10 <sup>6</sup> /0.1 mL | 10 mL  | 36 Months  |
| UA-07            | 10 <sup>7</sup> /0.1 mL |        |            |
| UA-08            | 10 <sup>8</sup> /0.1 mL |        |            |



## Dry Block Incubators

- Ambient to 70°C temperature range ( $\pm 0.5^{\circ}\text{C}$ )
- Removable, clear polycarbonate lid allows for full viewing of all units at a glance
- Ten (10) wells each 13 mm accommodate Spore Ampules, Traditional Mini and Rigid SCBIs

## ORDER INFORMATION

| REF-PRODUCT CODE | PLUG TYPE            |
|------------------|----------------------|
| INC-AM           | American, 110V       |
| INC-EU           | European 220V        |
| INC-UK           | United Kingdom, 220V |



CODES

CRYR-1 / CRYR-2 / CRYR-3 / CRYR-4 / CRYR-5

## Chemical Process Indicators (CPIs)

ISO 11140-1 TYPE 1 (Gamma or E-beam)

### Product Description

True Indicating Radiation Chemical Process Indicator labels are manufactured with:

- Indicating Ink which contains no lead or other toxic heavy metals
- A high quality film which prevents Indicators from being torn or damaged during transport and exposure
- Latex-free pressure sensitive adhesive
- An overlaminant which provides protection from UV light aiding to minimize color transition while in storage prior to exposure

The Indicators are designed to provide confirmation of exposure to a radiation process through color transition from Yellow to Red. The Indicators may be used to monitor radiation dose levels of 10 kGy and greater. The higher the dose level the darker the Red transition color will become.

True Indicating offers five (5) standard configurations; see table below. In addition to standard configurations, True Indicating will manufacture custom Indicators and Labels to meet your needs.

### ORDER INFORMATION

| REF-PRODUCT CODE                                                                           | QUANTITY                                    | INDICATOR DIMENSION                 | UNEXPOSED                                                                             | 1 kGY                                                                                 | 10 kGY                                                                                | 25 kGY                                                                                |
|--------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CRYR-1  | 5,000 Dots/Roll                             | 12.7 mm (1/2")                      |  |  |  |  |
| CRYR-2  | 1,000 / Roll                                | Meto Label<br>25 x 12 mm (1 x 0.5") |   |  |  |  |
| CRYR-3  | 5,000 Dots/ Roll Each Imprinted with Red is | 12.7 mm (1/2")                      |  |  |  |  |
| CRYR-4  | 1,000 / Roll                                | 12.7 mm (1/2")                      |   |  |  |  |
| CRYR-5  | 5,000 Dots/Roll                             | 14 x 14 mm                          |  |  |  |  |



## Biological Indicators (BIs)

ISO 11138-1 and USP Compliant (Gamma or E-beam)

### Product Description

True Indicating EO Chemical

Indicating Radiation Biological Indicator are manufactured with:

- Pure high quality *Bacillus pumilus* spores, Cell Line 27142, within 5 passages of an original stock culture suspended only in Water For Injection (WFI)

- Spore strips are 6 x 30 mm packaged in glassine envelopes
- Spore Suspensions are packaged in pharmaceutical grade glass vials with screw cap and septum to allow for access with a pipette or syringe

The Indicators are designed to provide assurance of effective sterilization after exposure to a radiation process. The Indicators may be used to monitor radiation dose levels of 10 kGy and greater.

True Indicating offers standard configurations of Spore Strips and Spore Suspensions; see table below. In addition to standard configurations, True Indicating will manufacture custom Indicators to meet your needs.

**CODES** SPORE STRIPS: SBP-06 / SBP-07 / SBP-08

**CODES** SPORE SUSPENSIONS: UBP-06 / UBP-07 / UBP-08

### SPORE STRIPS

| REF-PRODUCT CODE | POPULATION             | D VALUE                                 | GLASSINE DIMENSION | SHELF LIFE |
|------------------|------------------------|-----------------------------------------|--------------------|------------|
| SBP-06           | 10 <sup>6</sup> /strip | 0.1 to 0.2 Mrad<br>Or<br>1.0 to 2.0 kGy | 30 x 38 mm         | 24 Months  |
| SBP-07           | 10 <sup>7</sup> /strip |                                         |                    |            |
| SBP-08           | 10 <sup>8</sup> /strip |                                         |                    |            |

### SPORE SUSPENSION

| REF-PRODUCT CODE | POPULATION             | D VALUE                                 | VOLUME | SHELF LIFE |
|------------------|------------------------|-----------------------------------------|--------|------------|
| UBP-06           | 10 <sup>6</sup> /0.1ml | 0.1 to 0.2 Mrad<br>Or<br>1.0 to 2.0 kGy | 10 mL  | 24 Months  |
| UBP-07           | 10 <sup>7</sup> /0.1ml |                                         |        |            |
| UBP-08           | 10 <sup>8</sup> /0.1ml |                                         |        |            |



**CODES** CSBP-1 / CSPN-1

## Chemical Process Indicators (CPIs) ISO 11140-1 TYPE 1

### Product Description

True Indicating Steam Chemical

Process Indicator labels are manufactured with:

- Water-based Indicating Ink which contains no lead or other toxic heavy metals
- Latex-free pressure sensitive adhesive

The Indicators are designed to provide confirmation of exposure to a steam process through color transition from Blue to Pink for the CSBP-1 or Pink to Dark for the CSPN-1. The Indicators may be used to monitor steam processes at 121°C to 137°C. The color transition is designed to occur in compliance with ISO 11140-1 and display an irreversible color transition which is distinct allowing for processed from unprocessed items to be easily distinguished.

True Indicating offers two (2) standard configurations; see table below. In addition to the standard configurations, True Indicating will manufacture custom Indicators and labels to meet your needs.

### ORDER INFORMATION

| REF-PRODUCT CODE                                                                           | QUANTITY        | INDICATOR DIMENSION | UNEXPOSED                                                                             | EXPOSED                                                                               |
|--------------------------------------------------------------------------------------------|-----------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CSBP-1    | 5,000 Dots/Roll | 12.7 mm (1/2")      |    |    |
| CSPN-1  | 5,000 Dots/Roll | 12.7 mm (1/2")      |  |  |



**CODES** CSYN-14

## Multicritical Process Variable Indicator ISO 11140-1 Type 4

Type 4 Indicators are designed to react to two or more of the critical process variables. For EO, the critical process variable are time or length of exposure, temperature, relative humidity (RH) and EO concentration. True Indicating's Product Code CEVG-14, indicates exposure to an EO process at the stated value (SV) of 600mg/L at 54°C and 60% RH for 20 minutes.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the strip to packages during exposure and /or for record keeping purposes after exposure.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION             | UNEXPOSED                                                                           | INEFFECTIVE CONDITIONS                                                                | EXPOSED                                                                               |
|------------------|----------------|---------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| CSYN-14          | 250 Strip/Pack | 19 mm x 64 mm<br>(0.75" x 2.5") |  |  |  |



CODES CSPN-15

## Integrating Indicator ISO 11140-1 Type 5

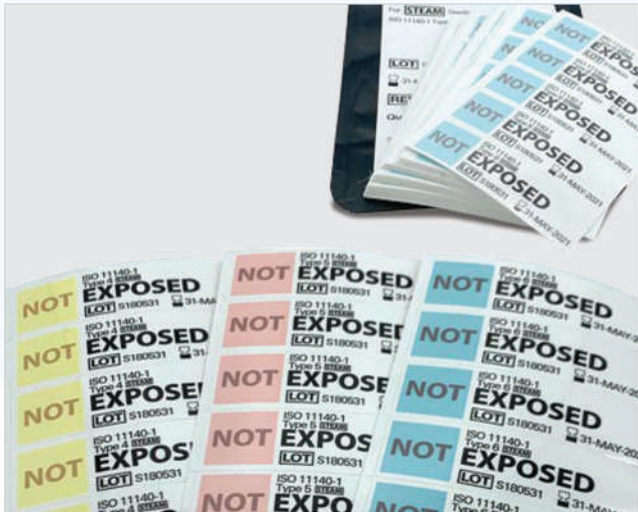
Type 5 Indicators are designed to react to all critical process variables including time, temperature and moisture. True Indicating's Product Code CSYN-15 indicates exposure to a steam process at the Stated Value (SV) of 121°C for 16.5 minutes or 135°C for 1.2 minutes.

The Indicator will transition from Pink to Dark; the transition color may vary depending on the load configuration, length and conditions of exposure. A color transition from Pink to Dark and the word "NOT" being completely concealed provides indication of effective steam sterilization conditions.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the Indicator to packages during exposure or for record keeping purposes after exposure.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION             | UNEXPOSED | INEFFECTIVE CONDITIONS | EXPOSED |
|------------------|----------------|---------------------------------|-----------|------------------------|---------|
| CSPN-15          | 250 Strip/Pack | 19 mm x 64 mm<br>(0.75" x 2.5") | NOT       |                        |         |



CODES CSBN-16

## Emulating Indicators ISO 11140-1 Type 6

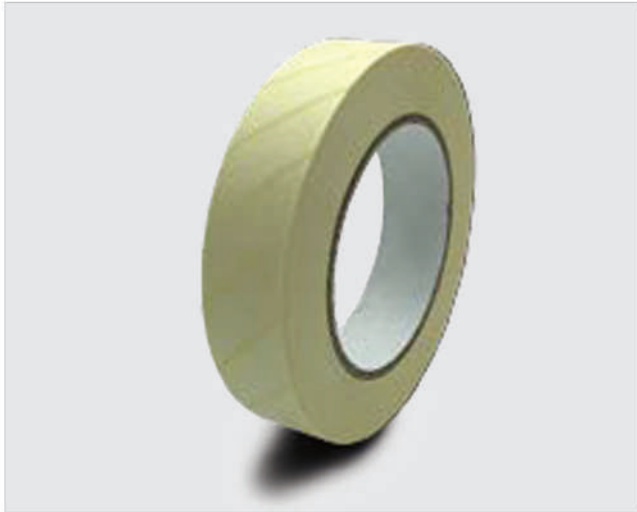
Type 6 Indicators are designed to react to all critical process variables including time, temperature and moisture. True Indicating's Product Code CSBN-16 indicates exposure to a steam process at the Stated Value (SV) of 121°C for 10 minutes or 134°C for 3.5 minutes.

The Indicator will transition from Blue to Dark; the transition color may vary depending on the load configuration, length and conditions of exposure. A color transition from Blue to Dark and the word "NOT" being completely concealed provides indication of effective steam sterilization conditions.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the Indicator to packages during exposure or for record keeping purposes after exposure.

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY       | INDICATOR DIMENSION             | UNEXPOSED | INEFFECTIVE CONDITIONS | EXPOSED |
|------------------|----------------|---------------------------------|-----------|------------------------|---------|
| CSBN-16          | 250 Strip/Pack | 19 mm x 64 mm<br>(0.75" x 2.5") | NOT       |                        |         |



## Autoclave Indicator Tape

### Product Description

The tape is used for closing packages, instrument wraps and other items requiring steam sterilization. The autoclave tape can be utilized for identifying processed from unprocessed items. The can adhere to paper, plastic, glass, metal and non-woven materials.

CODES CSWN-IT

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY    | INDICATOR DIMENSION                | UNEXPOSED | EXPOSED |
|------------------|-------------|------------------------------------|-----------|---------|
| CSWN-IT          | 12 Rolls/Cs | 19 mm x 55 m<br>(0.75" x 60 yards) |           |         |



## BOWIE DICK TEST PACKS AND TEST SHEETS

ISO 11140-4 Type 2 (BD-1x) and 11140-3 Type 2 (A4TS)

### Product Description

Bowie and Dick Test Packs and Test Sheets detect the presence of residual air in prevacuum steam sterilizers-autoclaves operating at 121° – 134°C. The internal Indicator sheet will demonstrate a uniform color change from Blue to Pink for Product Code BD-1X or Blue to Dark for Product Code A4TS when proper conditions for sub-atmospheric pulsing have been met. A Test Sheet yielding inconsistent color transition is indicative of one or more of the following being insufficient: exposure temperature, exposure time, vacuum depth, number of vacuum pulses, steam penetration, or air removal.

A Bowie Dick test should be performed at least once daily on the bottom shelf, over the drain closest to the door in an otherwise empty chamber. Product Code BD-1X is designed to be placed directly into the sterilizer-autoclave as the Test Sheet is contained within the Test Pack. Product Code A4TS is designed to be placed into a towel pack in accordance with ISO 11140-3.

Per ISO 11140-3 and 11140-4, exposures shall be performed at 121°C for 15 minutes or 134°C for 3.5 minutes. Please consult with Customer Service regarding evaluation at times or temperatures outside those recommended.

CODES BD-1X / A4TS

### ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY            | INDICATOR DIMENSION     | UNEXPOSED | EXPOSED |
|------------------|---------------------|-------------------------|-----------|---------|
| BD-1X            | 20 Test Packs/ Box  | 123 mm x 123 mm x 16 mm |           |         |
| A4TS             | 50 Test Sheets/ Box | 210 mm x 297 mm         |           |         |



**CODES** ST-04 / ST-05 / ST-06



**CODES** MT-06 / MTB-06



**CODES** DT-06 / DT3-06



**CODES** TT-06 / TTB-06



**CODES** WT-06 / WTB-06

## Biological Indicators and Inoculated Carriers

### Product Description

True Indicating Steam Biological Indicators (BIs) and Inoculated Carriers are:

- Compliant with ISO 11138-1 and 11138-3
- Pure high quality *Geobacillus stearothermophilus*, Cell Line 7953 Spores or *Bacillus subtilis* Cell Line 35021(5230) Spores for Low-Temperature Processes
- Consistent quality for Population, Purity and Resistance

The Indicators are designed to provide assurance of effective sterilization after exposure to a steam process. The Indicators may be used to monitor processes from 110°C - 137°C for equipment and process validation or routine monitoring. Use of *Bacillus subtilis* Spore Strips is recommended for low temperature steam sterilization processes at 110°- 118°C. The Indicators are labeled for laboratory or industrial use only.

### SPORE STRIPS - *Bacillus subtilis*

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS   | PACKAGING         |
|------------------|-----------------|--------------|-------------------|
| SB5-06           | 10 <sup>6</sup> | 6 mm x 30 mm | Glassine Envelope |

### SPORE STRIPS - *Geobacillus stearothermophilus*

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS   | PACKAGING         |
|------------------|-----------------|--------------|-------------------|
| ST-04            | 10 <sup>4</sup> | 6 mm x 30 mm | Glassine Envelope |
| ST-05            | 10 <sup>5</sup> |              |                   |
| ST-06            | 10 <sup>6</sup> |              |                   |

### MINI-SPORE STRIPS

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS   | PACKAGING         |
|------------------|-----------------|--------------|-------------------|
| MT-06            | 10 <sup>6</sup> | 2 mm x 10 mm | Glassine Envelope |
| MTB-06           |                 |              | Bulk              |

### SPORE DISCS

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS | PACKAGING |
|------------------|-----------------|------------|-----------|
| DT-06            | 10 <sup>6</sup> | 6 mm       | Bulk      |
| DT3-06           |                 | 3 mm       |           |

### SPORE THREADS

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS | PACKAGING         |
|------------------|-----------------|------------|-------------------|
| TT-06            | 10 <sup>6</sup> | 30 mm      | Glassine Envelope |
| TTB-06           |                 |            | Bulk              |

### SPORE WIRES

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS | PACKAGING         |
|------------------|-----------------|------------|-------------------|
| WT-06            | 10 <sup>6</sup> | 38 mm      | Glassine Envelope |
| WTB-06           |                 |            | Bulk              |



### Self-Contained Biological Indicator

#### Product Description

True Indicating Steam SCBIs offer:

- Compliance with ISO 11138-1 and 11138-3
- Reduced Incubation Time of 24 Hours
- Distinct color transition of media from Purple to Yellow when positive for Growth

The SCBIs are designed to provide assurance of effective sterilization after exposure to a steam process. The SCBIs may be used to monitor processes up to 140°C for equipment and process validations and routine monitoring. The self-sealing rigid SCBIs, SCST-05 and SCST-06, offer a better option for extended incubation up to 7 days with less concern of evaporation or color reversal of positive units.

The SCBIs are labeled for laboratory or industrial use only.

**CODES** MSCST-05 / MSCST-06 / SCST-05 / SCST-06

| SCBIs            |                 |                |           |
|------------------|-----------------|----------------|-----------|
| REF-PRODUCT CODE | POPULATION      | DIMENSIONS     | PACKAGING |
| MSCST-05         | 10 <sup>5</sup> | 8.3 mm x 46 mm | 100/Box   |
| MSCST-06         | 10 <sup>6</sup> |                |           |
| SCST-05          | 10 <sup>5</sup> | 9.5 mm x 48 mm | 50/Box    |
| SCST-06          | 10 <sup>6</sup> |                |           |



## Spore Ampules

### Product Description

Spore Ampules are SCBIs consisting of a hermetically sealed glass ampule which contains modified Tryptic Soy Broth (TSB) with a pH indicator and *Geobacillus stearothermophilus* Cell Line 7953 or *Bacillus subtilis* Cell Line 35021 (5230) Spores with a known population and resistance level. The modified TSB will transition from the initial color to yellow and or demonstrate turbidity in the presence of bacterial growth. The Spore Ampules *Geobacillus stearothermophilus* offer a reduced incubation period of 48 hours and 72 hours for *Bacillus subtilis*.

Spore Ampules are ideal for monitoring liquid steam sterilization cycles but may also utilized in dry loads. *Geobacillus stearothermophilus* Spore Ampules may be utilized to monitor steam processes at 121°C to 137°C, whereas *Bacillus subtilis* Spore Ampules are recommended for monitoring low-temperature steam processes in the range of 110°C to 118°C.

Spore Ampules are labeled for laboratory or industrial use only.

#### CODES

AT-04 / AT-05 / AT-06 / AT-0610 / ATM-06 / AB5-06

### Geobacillus stearothermophilus CELL LINE 7953

| REF-PRODUCT CODE | POPULATION          | AMPULE VOLUME | DIMENSIONS                              | PACKAGING                              |
|------------------|---------------------|---------------|-----------------------------------------|----------------------------------------|
| AT-04            | 10 <sup>4</sup>     | 1 mL          | 47 mm x 10.6 mm                         | 50/Box                                 |
| AT-05            | 10 <sup>5</sup>     |               |                                         |                                        |
| AT-06            | 10 <sup>6</sup>     |               |                                         |                                        |
| AT-0610          |                     |               | 50/Box + 10<br>Negative Control Ampules |                                        |
| ATM-06           |                     | 0.7 mL        | 40 mm x 6.5 mm                          | 50/Box + 5<br>Negative Control Ampules |
| AT-NC-10         | NA-Negative Control | 1 mL          | 47mm x 10.6mm                           | 10/Box                                 |

### Bacillus subtilis CELL LINE 35021

| REF-PRODUCT CODE | POPULATION      | AMPULE VOLUME | DIMENSIONS     | PACKAGING                        |
|------------------|-----------------|---------------|----------------|----------------------------------|
| AB5-06           | 10 <sup>6</sup> | 1 mL          | 40 mm x 6.5 mm | 100/Box + 10<br>Negative Control |



## Spore Suspensions

### Product Description

True Indicating Spore Suspensions are:

- Compliant with ISO 11138-1 and 11138-3 (where applicable)
- Packaged in pharmaceutical vials with caps and septum which allow access via a pipette or syringe

Spore Suspensions are pure suspensions of spores and Water For Injection (WFI) designed for use in direct inoculation or other studies where assurance of effective sterilization after exposure to a steam process is required.

Custom population levels and other diluents including Ethanol available upon request.

### CODES

UT-04 / UT-05 / UT-06 / UT-07 / UT-08 / UB5-06 / UB5-07 / UB5-08 / UB6-06 / UB6-07 / UB6-08

### Geobacillus stearothermophilus CELL LINE 7953

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UT-04            | 10 <sup>4</sup> /0.1 mL | 10 mL  | 24 Months  |
| UT-05            | 10 <sup>5</sup> /0.1 mL |        |            |
| UT-06            | 10 <sup>6</sup> /0.1 mL |        |            |
| UT-07            | 10 <sup>7</sup> /0.1 mL |        |            |
| UT-08            | 10 <sup>8</sup> /0.1 mL |        |            |

### Bacillus subtilis CELL LINE 35021 (5230)

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UB5-06           | 10 <sup>6</sup> /0.1 mL | 10 mL  | 24 Months  |
| UB5-07           | 10 <sup>7</sup> /0.1 mL |        |            |
| UB5-08           | 10 <sup>8</sup> /0.1 mL |        |            |

### Bacillus subtilis CELL LINE 6633

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UB6-06           | 10 <sup>6</sup> /0.1 mL | 10 mL  | 24 Months  |
| UB6-07           | 10 <sup>7</sup> /0.1 mL |        |            |
| UB6-08           | 10 <sup>8</sup> /0.1 mL |        |            |



## Modified Growth Medium

### Product Description

Prepared growth medium consists of an exclusively formulated Tryptic Soybean Broth (TSB) modified with a pH indicator. The pH indicator transitions from Purple to Yellow in the presence of *Geobacillus stearothermophilus* bacterial growth allowing for a reduced incubation period when used in conjunction with True Indicating BIs and Inoculated Carriers.

Modified growth medium offers a reduced incubation period of 24 hours for BIs and Inoculated Carriers of *Geobacillus stearothermophilus* when exposed to Steam or Vaporized Hydrogen Peroxide ( $\text{VH}_2\text{O}_2$ ) processes.

CODES PGM-50R / PGM-100

### Bacillus subtilis CELL LINE 35021

| REF-PRODUCT CODE | TUBE DIMENSIONS   | VOLUME              | PACKAGING                        | SHELF LIFE |
|------------------|-------------------|---------------------|----------------------------------|------------|
| PGM-50R          | 16.7 mm x 62.8 mm | 4.5 mL $\pm$ 0.5 mL | 50 Tubes + Reusable Holding Rack | 12 Months  |
| PGM-100          |                   |                     | 100 Tubes                        |            |



## Dry Block Incubators

- Ambient to 70°C temperature range ( $\pm 0.5^\circ\text{C}$ )
- Removable, clear polycarbonate lid allows for full viewing of all units at a glance
- Ten (10) wells each 13 mm accommodate Spore Ampules, Traditional Mini and Rigid SCBIs

### ORDER INFORMATION

| REF-PRODUCT CODE | PLUG TYPE            |
|------------------|----------------------|
| INC-AM           | American, 110V       |
| INC-EU           | European 220V        |
| INC-UK           | United Kingdom, 220V |



CODES CPYB-1 / CPVG-11

### Chemical Process Indicators (CPIs)

ISO 11140-1 Type 1

#### Product Description

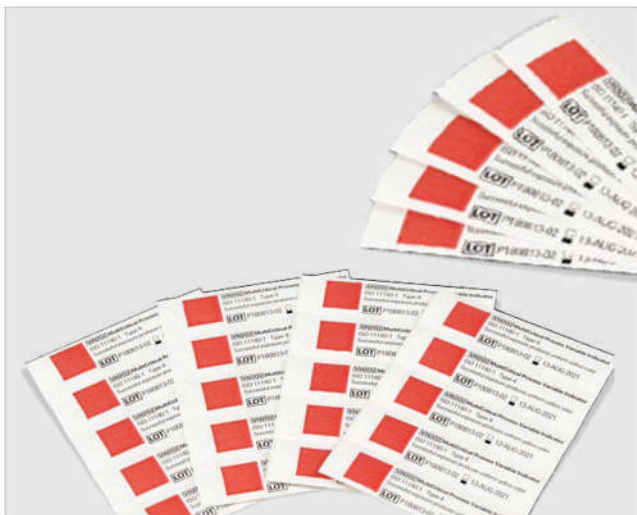
True Indicating VH2O2/Plasma Chemical Process Indicator labels are manufactured with:

- Water-based Indicating Ink which contains no lead or other toxic heavy metals
- Latex-free pressure sensitive adhesive

The Indicators are designed to provide confirmation of exposure to a VH2O2/Plasma process through color transition; Product Code CPYB-1 transitions from Yellow to Blue and Product Code CPVG-11 from Brown to Green. The Indicators may be used to monitor VH2O2/Plasma sterilization processes at  $\geq 50^{\circ}\text{C}$  and 2.3 mg/L of VH2O2/Plasma. The color transition which occurs after VH2O2/Plasma exposure is designed to occur in compliance with ISO 11140-1 and display an irreversible color transition which is distinct allowing for processed from unprocessed items to be easily distinguished.

True Indicating offers standard configurations which may be used in VH2O2/Plasma processes; see table below. In addition to the standard configuration, True Indicating will manufacture custom Indicators and labels to meet your needs.

| ORDER INFORMATION |                 |                              |           |         |
|-------------------|-----------------|------------------------------|-----------|---------|
| REF-PRODUCT CODE  | QUANTITY        | INDICATOR DIMENSION          | UNEXPOSED | EXPOSED |
| CPYB-1            | 5,000 Dots/Roll | 12.7 mm (1/2")               |           |         |
| CPVG-11           | 250 Strips/pack | 19 mm x 64 mm (0.75" x 2.5") |           |         |



CODES CPRO-14

### Multicritical Process Variable Indicator

ISO 11140-1 TYPE 4

#### Product Description

Type 4 Indicators are designed to react to two or more of the critical process variables. For VH2O2/Plasma, the critical process variables are time, temperature and hydrogen peroxide concentration. True Indicating's Product Code CPRO-14, indicates exposure to a VH2O2/Plasma process at the stated value (SV) of 2.3 mg/L,  $50^{\circ}\text{C}$  for 6 minutes with complete color change at 30 minutes  $\pm$  5 minutes.

The Indicator will transition from Red to Yellow; the transition color may vary depending on the load configuration, length and conditions of exposure. A color transition from Red to Yellow provides indication of exposure to a VH2O2/Plasma process where two or more of the critical process variables were met for sterilization.

The backing of the strip is removable which exposes latex-free adhesive for easy application of the Indicator to packages during exposure or for record keeping purposes after exposure.

| ORDER INFORMATION |                |                              |           |         |
|-------------------|----------------|------------------------------|-----------|---------|
| REF-PRODUCT CODE  | QUANTITY       | INDICATOR DIMENSION          | UNEXPOSED | EXPOSED |
| CPRO-14           | 250 Strip/Pack | 19 mm x 64 mm (0.75" x 2.5") |           |         |



## Indicator Tape

### Product Description

True Indicating VH2O2/Plasma Chemical Process

Indicator Tape is manufactured with:

- Water-based Indicating Ink which contains no lead or other toxic heavy metals
- Latex-free pressure sensitive adhesive

The Indicator Tape is used for closing packages, instrument wraps and other items requiring VH2O2/Plasma sterilization. The Indicator tape can be utilized for identifying processed from unprocessed items. The tape can adhere to plastic, glass, metal and non-woven materials.

CODES

CPRY-1T

## ORDER INFORMATION

| REF-PRODUCT CODE | QUANTITY    | INDICATOR DIMENSION                | UNEXPOSED | EXPOSED |
|------------------|-------------|------------------------------------|-----------|---------|
| CPRY-1T          | 12 Rolls/Cs | 19 mm x 55 m<br>(0.75" x 60 yards) |           |         |



## Self-Contained Biological Indicator

### Product Description

True Indicating Steam VH<sub>2</sub>O<sub>2</sub>/Plasma offer:

- Compliance with ISO 11138-1
- Reduced Incubation Time of 24 Hours

The SCBIs are designed to provide assurance of effective sterilization after exposure to a VH2O2/Plasma process. The SCBIs are labeled for laboratory or industrial use only.

CODES

MSCPT-06

## SCBIs

| REF-PRODUCT CODE | POPULATION      | DIMENSIONS     | PACKAGING |
|------------------|-----------------|----------------|-----------|
| MSCPT-06         | 10 <sup>6</sup> | 8.3 mm x 46 mm | 100/Box   |



## CODES

WTH-06 / SDTM-06 / SDTT-06 / TRI-7953 / SDGM-06  
SDGT-04 / SDGT-06 / TRI-12980 / SDAM-06 / SDAT-06

## Biological Indicator and Inoculated Carriers

## Product Description

True Indicating VH202/Plasma Biological Indicators (BIs) and Inoculated Carriers are:

- Compliant with ISO 11138-1
- Pure high quality Geobacillus stearothermophilus, Cell Line 7953 or 12980 and Bacillus atrophaeus Cell Line 9372 Spores
- Consistent quality for Population, Purity and Resistance

The Indicators are designed to provide assurance of effective sterilization after exposure to a VH202/Plasma process. The Indicators may be used to monitor sterilization processes for equipment and process validation or routine monitoring and when removed from the primary packaging used to monitor disinfection processes. The Indicators are labeled for laboratory or industrial use only.

True Indicating offers standard configurations of BIs and Inoculated Carriers; see tables below. In addition to standard configurations, True Indicating will manufacture custom Indicators to meet your needs.

## Geobacillus stearothermophilus CELL LINE 7953 | 12 Month Shelf Life

| REF-PRODUCT CODE | POPULATION                                        | VOLUME           | SHELF LIFE        |
|------------------|---------------------------------------------------|------------------|-------------------|
| WTH-06           | 10 <sup>6</sup>                                   | 38 mm Steel Wire | Bulk              |
| SDTM-06          |                                                   | 6 mm Steel Disc  | Tyvek/Mylar Pouch |
| SDTT-06          |                                                   |                  | Tyvek Pouch       |
| TRI-7953         | 10 <sup>4</sup> /10 <sup>5</sup> /10 <sup>6</sup> |                  |                   |

## Geobacillus stearothermophilus CELL LINE 12980 | 12 Month Shelf Life

| REF-PRODUCT CODE | POPULATION                                        | VOLUME          | SHELF LIFE        |
|------------------|---------------------------------------------------|-----------------|-------------------|
| SDGM-06          | 10 <sup>6</sup>                                   | 6 mm Steel Disc | Tyvek/Mylar Pouch |
| SDGT-04          | 10 <sup>4</sup>                                   |                 | Tyvek Pouch       |
| SDGT-06          | 10 <sup>6</sup>                                   |                 |                   |
| TRI-12980        | 10 <sup>4</sup> /10 <sup>5</sup> /10 <sup>6</sup> |                 |                   |

## Bacillus atrophaeus CELL LINE 9372 | 12 Month Shelf Life

| REF-PRODUCT CODE | POPULATION      | VOLUME          | SHELF LIFE        |
|------------------|-----------------|-----------------|-------------------|
| SDAM-06          | 10 <sup>6</sup> | 6 mm Steel Disc | Tyvek/Mylar Pouch |
| SDAT-06          |                 |                 | Tyvek Pouch       |



## Spore Suspensions

### Product Description

True Indicating Spore Suspensions are:

- Compliant with ISO 11138-1
- Packaged in pharmaceutical vials with caps and septum which allow access via a pipette or syringe

Spore Suspensions are designed for use in direct inoculation or other studies where assurance of effective sterilization after exposure to a VH<sub>2</sub>O<sub>2</sub>/Plasma process is required.

Custom population levels and other diluents including Ethanol available upon request.

CODES UTH-06 / UTH-07 / UTH-08 / UG-06 / UG-07 / UG-08

### Geobacillus stearothermophilus CELL LINE 7953

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UTH-06           | 10 <sup>6</sup> /0.1 mL | 10 mL  | 24 Months  |
| UTH-07           | 10 <sup>7</sup> /0.1 mL |        |            |
| UTH-08           | 10 <sup>8</sup> /0.1 mL |        |            |

### Geobacillus stearothermophilus CELL LINE 12980

| REF-PRODUCT CODE | POPULATION              | VOLUME | SHELF LIFE |
|------------------|-------------------------|--------|------------|
| UG-06            | 10 <sup>6</sup> /0.1 mL | 10 mL  | 24 Months  |
| UG-07            | 10 <sup>7</sup> /0.1 mL |        |            |
| UG-08            | 10 <sup>8</sup> /0.1 mL |        |            |



## Modified Growth Medium

### Product Description

TPrepared growth medium consists of an exclusively formulated Tryptic Soybean Broth (TSB) modified with a pH indicator. The pH indicator transitions to yellow in the presence of bacterial growth allowing for a reduced incubation period when used in conjunction with True Indicating BIs and Inoculated Carriers.

Modified growth medium offers a reduced incubation period of 24 hours for Geobacillus stearothermophilus or for a minimum of 48 hours with Bacillus atrophaeus when exposed to Steam, Ethylene Oxide (EO), dry heat or Vaporized Hydrogen Peroxide (VH<sub>2</sub>O<sub>2</sub>) processes.

CODES PGM-50R / PGM-100 / GGM-50R / GGM-100

### ORDER INFORMATION

| REF-PRODUCT CODE | POPULATION        | VOLUME          | PACKAGING                         | SHELF LIFE |
|------------------|-------------------|-----------------|-----------------------------------|------------|
| PGM-50R          | 16.7 mm x 62.8 mm | 4.5 mL ± 0.5 mL | 50 Tubes + Re-usable Holding Rack | 12 Months  |
| PGM-100          |                   |                 | 100 Tubes                         |            |

### ORDER INFORMATION

| REF-PRODUCT CODE | POPULATION        | VOLUME          | PACKAGING                         | SHELF LIFE |
|------------------|-------------------|-----------------|-----------------------------------|------------|
| GGM-50R          | 16.7 mm x 62.8 mm | 4.5 mL ± 0.5 mL | 50 Tubes + Re-usable Holding Rack | 12 Months  |
| GGM-100          |                   |                 | 100 Tubes                         |            |

### Cleanroom Classification according to EN ISO 14644-1 - particles per m<sup>3</sup> (maximum limit)

| CLASS | ≥ 0.1 µm | ≥ 0.2 µm | ≥ 0.3 µm | ≥ 0.5 µm | ≥ 1.0 µm | ≥ 5.0 µm |
|-------|----------|----------|----------|----------|----------|----------|
| ISO 1 | 10       |          |          |          |          |          |
| ISO 2 | 100      | 24       | 10       |          |          |          |
| ISO 3 | 1000     | 37       | 102      | 35       |          |          |
| ISO 4 | 10000    | 2370     | 1020     | 352      | 83       |          |
| ISO 5 | 100000   | 23700    | 10200    | 3520     | 832      |          |
| ISO 6 | 1000000  | 237000   | 102000   | 35200    | 8320     | 293      |
| ISO 7 |          |          |          | 352000   | 83200    | 2930     |
| ISO 8 |          |          |          | 3520000  | 832000   | 29300    |
| ISO 9 |          |          |          | 35200000 | 8320000  | 293000   |

### GMP Classification - particles per m<sup>3</sup> (maximum limit)

| CLASS | At Rest  |          | In operation |          |
|-------|----------|----------|--------------|----------|
|       | ≥ 0.5 µm | ≥ 0.5 µm | ≥ 0.5 µm     | ≥ 0.5 µm |
| A     | 3520     | 20       | 3520         | 20       |
| B     | 3520     | 29       | 35200        | 2900     |
| C     | 352000   | 2900     | 3520000      | 29000    |
| D     | 3520000  | 29000    | Not defined  |          |

### ISO - ACC -classes according to EN ISO 14644-8

| ISO-ACC - Class | Concentration     |                   |                   |
|-----------------|-------------------|-------------------|-------------------|
| CLASS           | g/m <sup>3</sup>  | µg/m <sup>3</sup> | ng/m <sup>3</sup> |
| 0               | 10 <sup>0</sup>   | 10 <sup>6</sup>   | 10 <sup>9</sup>   |
| -1              | 10 <sup>-1</sup>  | 10 <sup>5</sup>   | 10 <sup>8</sup>   |
| -2              | 10 <sup>-2</sup>  | 10 <sup>4</sup>   | 10 <sup>7</sup>   |
| -3              | 10 <sup>-3</sup>  | 10 <sup>3</sup>   | 10 <sup>6</sup>   |
| -4              | 10 <sup>-4</sup>  | 10 <sup>2</sup>   | 10 <sup>5</sup>   |
| -5              | 10 <sup>-5</sup>  | 10 <sup>1</sup>   | 10 <sup>4</sup>   |
| -6              | 10 <sup>-6</sup>  | 10 <sup>0</sup>   | 10 <sup>3</sup>   |
| -7              | 10 <sup>-7</sup>  | 10 <sup>-1</sup>  | 10 <sup>2</sup>   |
| -8              | 10 <sup>-8</sup>  | 10 <sup>-2</sup>  | 10 <sup>1</sup>   |
| -9              | 10 <sup>-9</sup>  | 10 <sup>-3</sup>  | 10 <sup>0</sup>   |
| -10             | 10 <sup>-10</sup> | 10 <sup>-4</sup>  | 10 <sup>-1</sup>  |
| -11             | 10 <sup>-11</sup> | 10 <sup>-5</sup>  | 10 <sup>-2</sup>  |
| -12             | 10 <sup>-12</sup> | 10 <sup>-6</sup>  | 10 <sup>-3</sup>  |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Abrasion Resistance</b>                  | Determination of the abrasion resistance of textile fabrics using the Martindale method according to ISO 12947; enables conclusions about the self-contamination by textile particles.                                                                                                                                                                                                                                                                                 |
| <b>Body Box</b>                             | An indispensable test cabin for testing the effectiveness of cleanroom fabrics under real environmental conditions.                                                                                                                                                                                                                                                                                                                                                    |
| <b>Breathability</b>                        | After determining the water vapour permeability of the textile, its breathability is assessed.                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Electrostatic Properties</b>             | in addition to conductivity, the disposition to electric charge and discharging rate are particularly considered here                                                                                                                                                                                                                                                                                                                                                  |
| <b>Endless Filament</b>                     | A fibre of theoretically unlimited length is often described as continuous or endless filament; counted here are synthetics which are not cut at a specific length but also natural silk thread.                                                                                                                                                                                                                                                                       |
| <b>ESD</b>                                  | electrostatic discharge: a voltage breakdown caused by a large potential difference. These breakdowns (possibly visible as sparks) cause a short, high electric current and can lead to the ignition of flammable substances. Under unfavourable circumstances, fire and explosion hazards as well as hazards to persons due to electric shock may occur. Other undesirable consequences of electrostatic discharges are damage to electrical components in equipment. |
| <b>Fabric</b>                               | Textile area-measured material consisting of at least two crossed thread or yarn systems. The threads in the longitudinal direction are called warp threads (warp), the transverse threads are called weft threads (weft). The threads crossing each other regularly (this is called weave type) thus enable a relatively firm structure.                                                                                                                              |
| <b>Guaze</b>                                | Net-like, lightweight textile.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Haptics</b>                              | Feature which is grasped through the tactile sense. The grip of a fabric. An often very subjective judgement, if a piece of clothing/textile feels pleasant or rather is classified as unpleasant.                                                                                                                                                                                                                                                                     |
| <b>Knitted Fabric (knit fabric)</b>         | Textile area-measured product consisting of knitted or crocheted fabrics obtained by means of one or more threads or yarns using at least two needles. Knitted fabrics are generally more elastic than woven fabrics.                                                                                                                                                                                                                                                  |
| <b>Microfibre (microfiber)</b>              | The fineness of such a fibre is less than 1 dtex; i.e. 10,000 m of a microfiber weigh <1 g. Microfibre fabrics are very soft and retain their shape.                                                                                                                                                                                                                                                                                                                   |
| <b>Particle Migration Behaviour</b>         | Particles and fibres released by frictional movements move through the textile due to mechanical forces.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Particle Retention</b>                   | Filtration efficiency against airborne particles.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Plain Weave</b>                          | These fabrics show the same fabric appearance on the upper and lower fabric side; each warp thread alternately crosses a weft thread; see also twill weave.                                                                                                                                                                                                                                                                                                            |
| <b>PPE (Personal Protective Equipment)</b>  | Items such as clothing designed to protect the wearer against risks arising from the working environment.                                                                                                                                                                                                                                                                                                                                                              |
| <b>Special Accessories/ Special Options</b> | Cleanroom garments are devised using the modular design principle. Standard models are defined (a sort of basic scaffolding) which, depending on customer requirements, can be extended with additional options (special accessories). Examples: bags, loops, knitted cuffs, logos etc.                                                                                                                                                                                |
| <b>Textile Equipment</b>                    | Garments can be additionally equipped at the end of the manufacturing chain with defined surface finishes, thus to achieve a certain functionality of the fabric. E. g. durable water-repellent equipment and antimicrobial equipment.                                                                                                                                                                                                                                 |
| <b>Triboelectric Behaviour</b>              | The behaviour of electrical charges on plastic surfaces (here synthetic textile surfaces). Describes how susceptible a textile is to becoming charged by friction and how quickly it discharges again.                                                                                                                                                                                                                                                                 |
| <b>Twill</b>                                | Also called twill weave, besides the plain weave and the satin weave, one of the three basic bonding types for woven fabric. A distinction is made between warp and weft twill, depending on whether the warp or weft threads are woven on the upper side of the goods predominate. A characteristic feature is the oblique burr.                                                                                                                                      |
| <b>Twill Weave</b>                          | On these fabrics, a distinction is made between warps and wefts, depending if the warp or weft threads predominate on the top (face) of the fabric. A typical characteristic is the diagonally running ridge. See also plain weave.                                                                                                                                                                                                                                    |

## Request FORM / Talep Formu

E-MAIL: [info@temizodamarketi.com](mailto:info@temizodamarketi.com)

Please fill in this form and fax it back to us. / Lütfen formu doldurup bize geri yollayınız.  
Our expert customer service team will contact you directly. / Uzman arkadaşlarımız sizinle temasa geçeceklerdir.

| Page/Sayfa | Article / Ürün Adı | Quantity /<br>Miktar | Colour /<br>Renk | Size / Beden |
|------------|--------------------|----------------------|------------------|--------------|
|            |                    |                      |                  |              |
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Notes / Not:

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Please specify your cleanroom classes / Lütfen temizoda sınıfınızı belirtiniz:

- ☐ ISO-3   ☐ ISO-4   ☐ ISO-5   ☐ ISO-6   ☐ ISO-7   ☐ ISO-8   ☐ ISO-9   ☐ NONE  
☐ A   ☐ B   ☐ C   ☐ D

Is your cleanroom / Temizodanız;

- ☐ Purely particle controlled area / Tamamen partikül kontrollü  
☐ Particle and microbiological controlled area /  
 Partikül ve mikrobiyolojik kontrollü alan  
☐ A non-controlled cleanroom / Kontrolsüz temizoda

Address / Company stamp

Phone/Fax:

I am also interested in the following information / Ayrıca lütfen aşağıdaki konularda da bilgi veriniz.

- ☐ 1 TECHNICAL DOKUMENTATION  
☐ 2 CLEANROOM GARMENTS  
☐ 3 UNDERGARMENTS  
☐ 4 CLEANROOM SERVICE  
☐ 5 SHOES  
☐ 6 DISPOSABLE AND PROTECTIVE CLOTHING  
☐ 7 GLOVES AND FINGER COTS  
☐ 8 CLEANROOM PAPER AND ACCESSORIES  
☐ 9 CLEANROOM WIPES

- ☐ CLEANING PRODUCTS  
☐ DISINFECTION PRODUCTS  
☐ TACKY MATS  
☐ FILTERS  
☐ FURNITURE  
☐ DISPENSERS  
☐ MISCELLANEOUS  
☐ DRY FOG TECHNOLOGY

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