hygiena

MicroSnap™

RAPID MICROORGANISM DETECTION

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Contents




Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Better Food Safety by Knowing Now

Hygiena's new **MicroSnap** platform replaces traditional microbiology testing methods with a rapid, specific test that provides results in less than eight hours. Same-shift test results allow food and beverage processors to screen raw materials faster, monitor the plant environment in real time, and release finished products sooner.

MicroSnap Instructional Video

	Traditional Methods	MicroSnap™
Rapid Results	-	+
Easy Sample Prep	+	+
Sensitivity	+	+
Specificity	-	+
Quantiitative Results	+	+
Easy to Use	+	+
Cost Effective	+	+

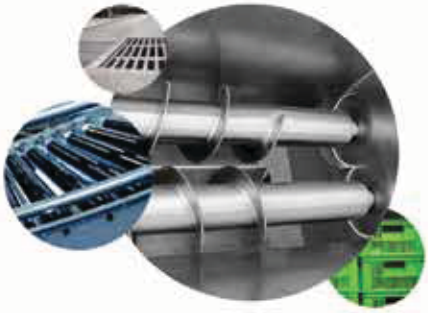
Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Rapid results where you need them most:

Raw Material Tests

Screen for microbiological contamination before materials go into processing.

- Feed just in time production with confidence and reduce risk
- Prevent contaminated raw materials from contaminating production lines and causing product spoilage
- Avoid costly decontamination protocols and rework
- Prevent equipment down time and lost earning potential
- Evaluate quality and safety of suppliers and supply chain
- Get materials into production sooner to return investment faster



Plant Environmental Monitoring

Test environmental surfaces and equipment to obtain real-time updates on plant organism levels.

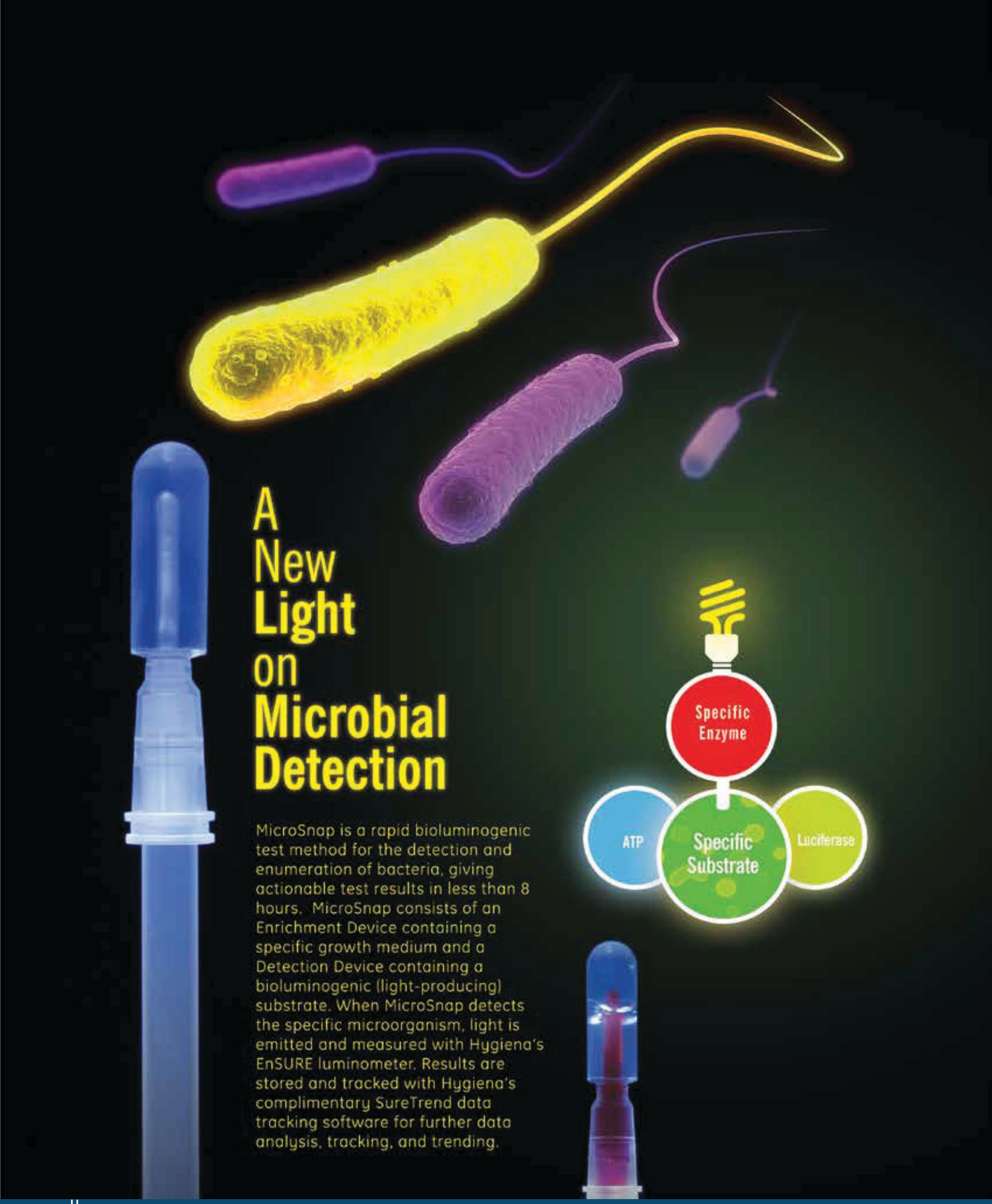
- Prevent environmental contamination from leading to spoiled product
- Evaluate the effectiveness of cleaning and sanitation protocols
- Show due diligence to auditors and customers
- Troubleshoot problem areas in hours versus days

Finished Product Testing

Get finished product tests back faster so products can ship sooner.

- Release time-sensitive products sooner with results in under 8 hours
- React to contamination before product ships
- Prevent costly recalls
- Protect your brand name and reputation
- Reduce warehoused products and inventory costs

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com



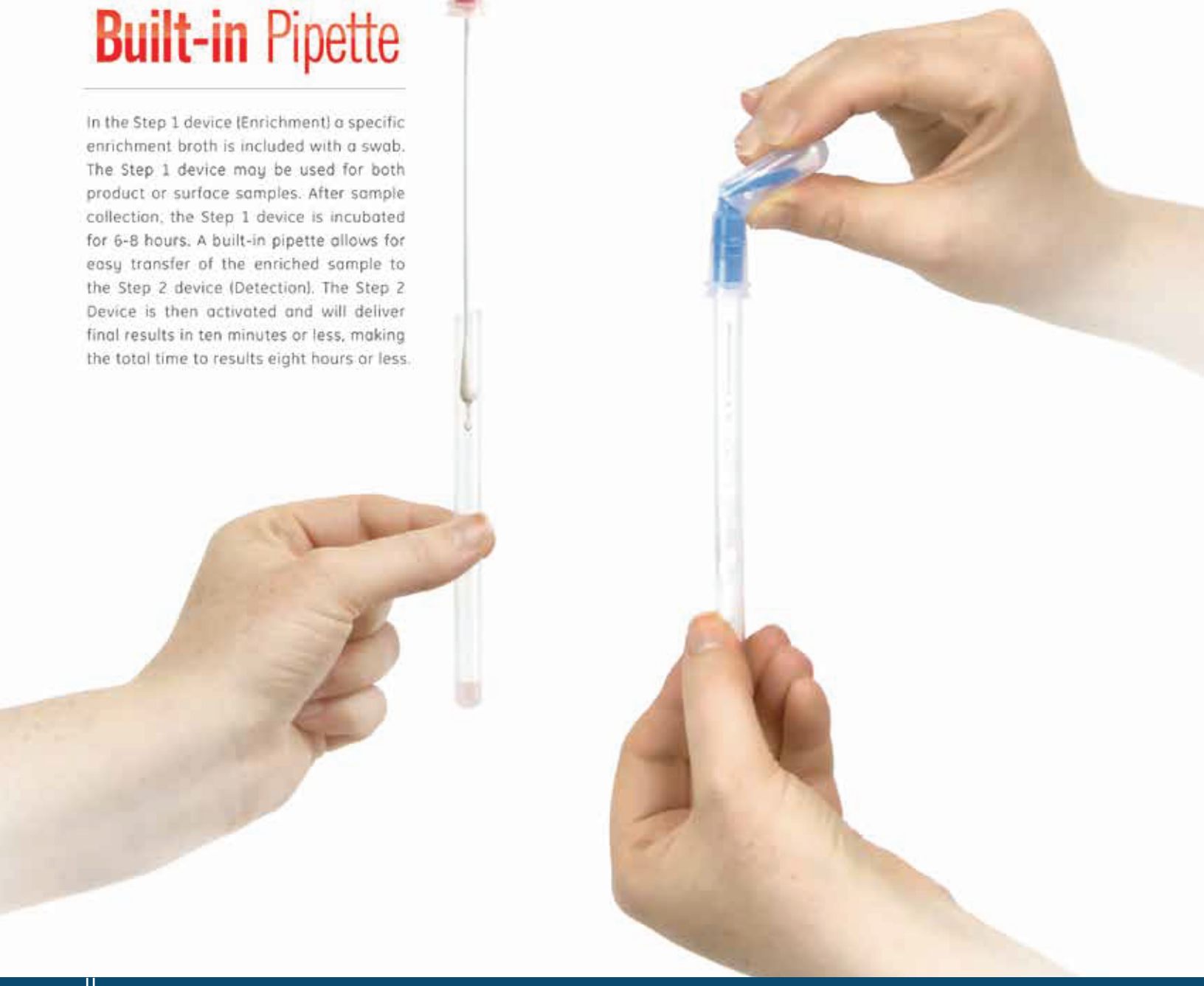
Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Snap-Valve™

Potented Snap-Valve technology makes MicroSnap easy-to-use and affordable. The MicroSnap platform utilizes two Snap-Valve devices.

Built-in Pipette

In the Step 1 device (Enrichment) a specific enrichment broth is included with a swab. The Step 1 device may be used for both product or surface samples. After sample collection, the Step 1 device is incubated for 6-8 hours. A built-in pipette allows for easy transfer of the enriched sample to the Step 2 device (Detection). The Step 2 Device is then activated and will deliver final results in ten minutes or less, making the total time to results eight hours or less.



Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

MicroSnap | *E. coli*

Detection Times:
Enumeration - 6 hours
Presence/Absence - 8 hours

Part No:
Enrichment Swab - MS-ECE
Enrichment Broth - MS-EBROTH
Detection Device - MS-EC

Detects:
Escherichia

MicroSnap | Coliform

Detection Times:
Enumeration - 6 hours
Presence/Absence - 8 hours

Part No:
Enrichment Swab - MS-ECE
Enrichment Broth - MS-EBROTH
Detection Device - MS-CC

Detects:
Escherichia
Klebsiella
Citrobacter
Enterobacter

MicroSnap | Enterobacteriaceae

Detection Times:
Enumeration - 6 hours
Presence/Absence - 8 hours

Part No:
Enrichment Swab - MS-EEB
Detection Device - MS-EB

Detects all species within the Enterobacteriaceae family including:

E. coli
Klebsiella
Citrobacter
Enterobacter
Serratia
Shigella
Salmonella
Yersinia

MicroSnap | Total Viable Count

Detection Times:
Enumeration - 7 hours

Part No:
Enrichment Swab - MS-ETVC
Detection Device - MS-TVC

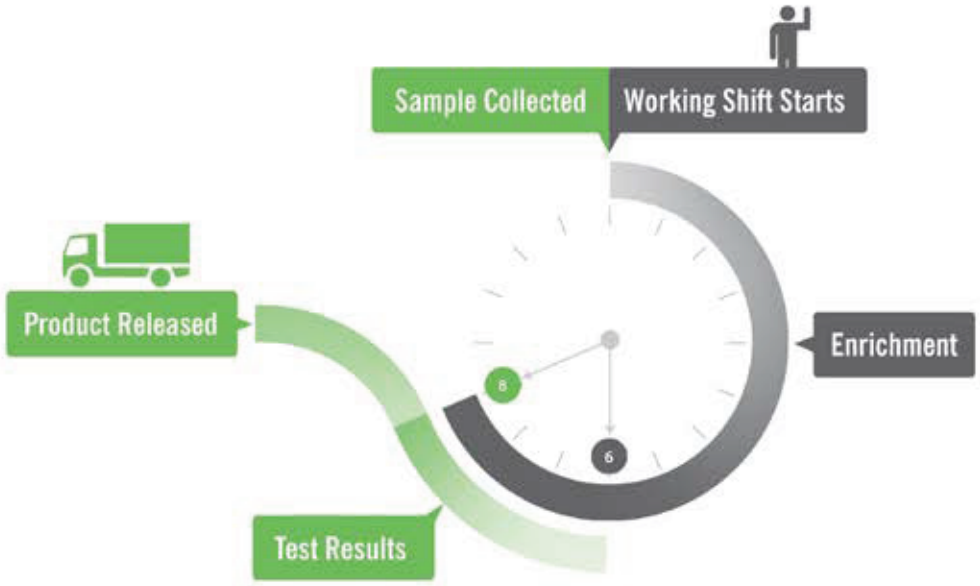
Detects Gram positive and Gram negative aerobic and facultative bacteria, including:

E. coli
Listeria
Shigella
Staphylococcus
Pseudomonas
Vibrio

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Test Time ⇄ Shift Time

The entire MicroSnap test process can be completed in a typical 8-hour shift



Enumeration

Enrichment Starts

Sample is collected at the start of a shift and enrichment starts. Sample is incubated for 2-7 hours, depending on the application and specification.

Presence/Absence

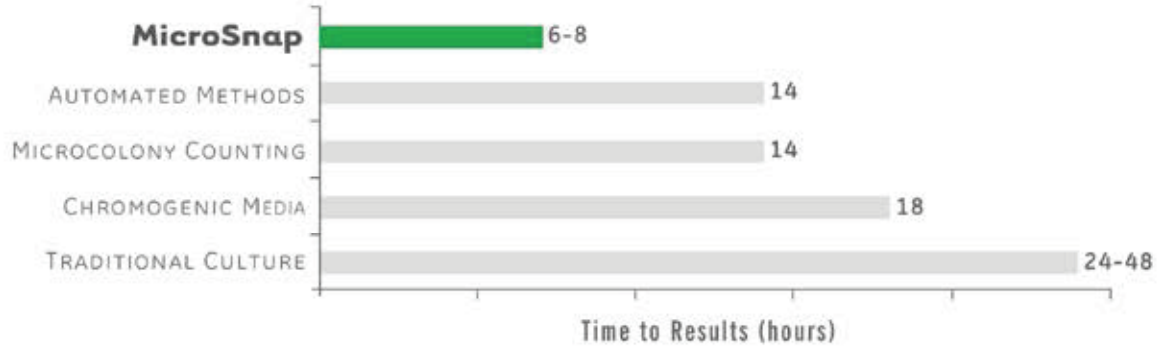
Enrichment starts

Sample is collected and enriched at the begining of the shift. Sample is incubated for 7-8 hours.

Detection

After enrichment, sample is transferred to the detection device and results are measured with the EnSURE luminometer.

Method Comparison - Detection Times

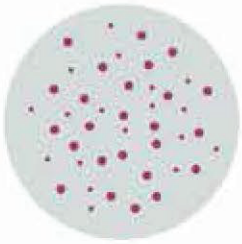


Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Meaningful Results

CFU
Colony Forming Units

Traditional plating methods utilize colony counting techniques to determine CFU. New MicroSnap technology enables user to derive an equivalent CFU value without the plate.



RLU
Relative Light Units

EnSURE displays measurement in relative light units (RLU's). The RLU number can be correlated to colony forming units (CFU's) from traditional microbiology testing by referring to the table below.

CFU ⇄ RLU - Conversion

CFU/ml or g		E. coli	Coliform	Enterobacteriaceae	TVC
<10	⇄	2	2	N/A	N/A
<20	⇄	4	4	N/A	N/A
<50	⇄	7	7	10	N/A
<100	⇄	12	12	20	10
<200	⇄	20	20	40	20
<500	⇄	35	35	100	50
<1,000	⇄	60	60	200	100
<5,000	⇄	180	180	1,000	500
<10,000	⇄	300	300	5,000	1,000

Sensitivity + Specificity Comparison

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

EnSURE

One Instrument | Multiple Tests

EnSURE is a quality monitoring system that uses a single instrument platform to collect, analyze and report data from multiple quality tests. Using new state-of-the-art technology and patented designs, the EnSURE system is an easy-to-use, flexible, and accurate quality monitoring system.

Benefits

Multiple Tests

Hygiena offers a wide range of reliable, easy-to-use, and self-contained food safety testing devices and swabs for detecting the presence of ATP, protein residue, specific enzymes, and microorganisms.

Rapid Results

Individual testing devices are activated with a simple snap and squeeze action, then placed into the handheld EnSURE luminometer, giving results in as little as 15 seconds.

Track & Trend

Results are uploaded to Hygiena's SureTrend software, which offers an easy and simple way to track, trend, analyze, archive and report test results over time.

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

SURETrend

Data Analysis Software

SureTrend delivers a complete picture of plant hygiene

- Over 40 pre-set reports so data analysis can begin immediately
- Simple programming of test locations, users, and testing plans
- Easy reports and charts wizard for customization
- Data may be exported into Excel for further analysis
- Auto upload saves data entry time and eliminates human error
- Networkable for multiple locations or multiple EnSURE systems

Benefits

Tracking

SureTrend Software allows managers to track every quality indicator measured with the EnSURE system, including ATP and microorganisms.

Trending

Identify cleaning trends with equipment, work crews and processes. See where and when contamination is growing. Confidently reduce repeat cleaning sessions and processing downtime for faster production.

Networking

Compare the test results of two facilities or production lines. Spikes in data help managers know when to reassess cleaning interventions.

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

More Products: Compatible with EnSURE

UltraSnap: Surface ATP

UltraSnap is a user-friendly, self-contained ATP surface testing device. It contains a pre-moistened swab bud for better recovery of test sample. With its unique liquid-stable enzyme reagent and Hygiena's patented Snap Valve™ technology for easy activation, UltraSnap offers exceptional accuracy and precision in testing the presence of ATP.

AquaSnap: Water ATP

AquaSnap is an innovative, easy-to-use device for testing the presence of ATP in liquid samples. This pen-sized testing device is an accurate way to monitor biomass and organic residue in water or liquid samples. Its honey dipper collection tip accurately collects 100 µl of liquid for consistent sample gathering. AquaSnap's liquid-stable reagent gives superior accuracy and sensitivity.

AquaSnap Total: For microbial and nonmicrobial ATP.
AquaSnap Free: For nonmicrobial ATP.

SuperSnap: Allergen Prevention

SuperSnap, Hygiena's most sensitive ATP testing device for surfaces, is an all-in-one test used predominantly in environments where the highest standards of hygiene are required. It is also an effective tool to prevent allergen cross contamination, or to deal with difficult samples. SuperSnap can detect food residues at levels similar to or lower than those detected by specific allergen tests.

ZymoSnap: Alkaline Phosphatase

ZymoSnap measures alkaline phosphatase (ALP) enzyme activity in milk and dairy products. ALP is a natural component of raw milk that is inactivated by pasteurization and subsequent rapid cooling. ALP activity is used as a measure of effective pasteurization.

CrossCheck: Acid Phosphatase

CrossCheck measures acid phosphatase enzyme activity, a natural enzyme present in raw meat. CrossCheck is used on finished products to verify thermal processing and on food contact surfaces to measure raw meat residues and cross contamination hazards.

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

Step 1: Enrichment

PRODUCT	CATALOG NO.	QTY
Enrichment Swab: Enterobacteriaceae	MS-EEB	100
Enrichment Swab: Coliform, E. coli	MS-CEC	100
Enrichment Swab: Total Viable Count	MS-ETVC	100
Enrichment Broth: Coliform, E. coli	MS-EBROTH	100
Mini-Incubator - 37C - 11 positions	INCUBATOR	1

Step 2: Detection

PRODUCT	CATALOG NO.	QTY
MicroSnap Enterobacteriaceae Detection	MS-EB	100
MicroSnap Coliform Detection	MS-CC	100
MicroSnap E. coli Detection	MS-EC	100
MicroSnap Total Viable Count Detection	MS-TVC	100
EnSURE luminometer	ENSURE	1

Related Products

PRODUCT	CATALOG NO.	QTY
UltraSnap Surface ATP Test	US2020	100
AquaSnap Free: Free ATP for Water	AQ-FX	100
AquaSnap Total: Total ATP for Water	AQ-X	100
SuperSnap Allergen Prevention/High Sensitivity ATP	SUS3000	100
ZymoSnap Alkaline Phosphatase	ZS-ALP	100
CrossCheck Acid Phosphatase	CX-3000	100

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

MicroSnap™ | Procedure

STEP 1

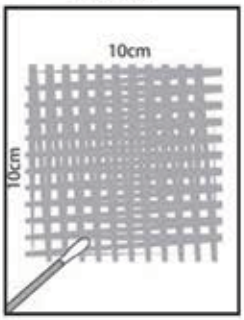
Product

Liquid Sample: Add 1mL liquid food, beverage, or water sample directly to Enrichment swab

Solid Samples: Add 1 mL 10% suspension of solid sample directly to Enrichment swab

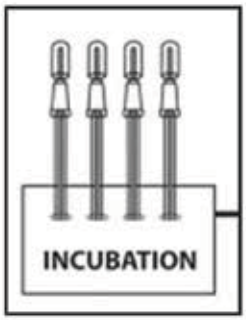
or

Surface



Surface Samples: Swab a 10x10 cm area with Enrichment swab.

Re-insert Snap-Valve bulb into Enrichment swab tube. Activate the enrichment swab device by bending the bulb back and forth to snap the Snap-Valve. Lift the bulb up (1-2 inches) and squeeze to release the liquid into the tube. Release pressure from the bulb and replace into the tube.



Incubate for the time required for desired detection levels.

STEP 2

Allow detection device to equilibrate to room temp. Shake tube by tapping on the palm of your hand 5 times to bring all condensation to the bottom of the tube.

Aseptically transfer .1mL (2 -3 drops, or to fill line) of enriched sample to detection device.

Activate detection device by breaking the snap valve with a snap and squeeze action. Shake the tube gently to mix sample in the liquid.

Incubate Enterobacteriaceae, Coliform, and *E. coli* formats for an additional 10 minutes.

Insert detection device into EnSURE luminometer and initiate measurement. Refer to RLU interpretation table to interpret results.

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com

BIO SHIELD TECH
ANTIMICROBIAL

ANTIMICROBIAL PRODUCT & SOLUTION EXPERTS

CLEAN PROTECT TEST

Bio Shield Tech, Palm Coast, FL 32137
Phone : 888-489-9226 • Email : info@bioshieldtech.com • Web : www.bioshieldtech.com