



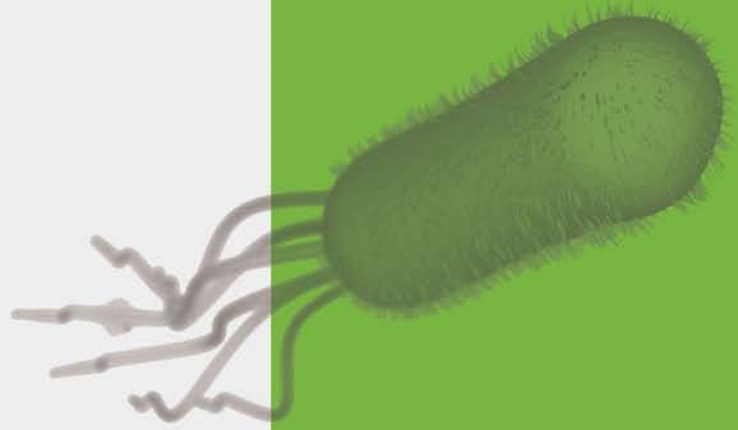
MicroSnap™

Rapid Microorganism Detection

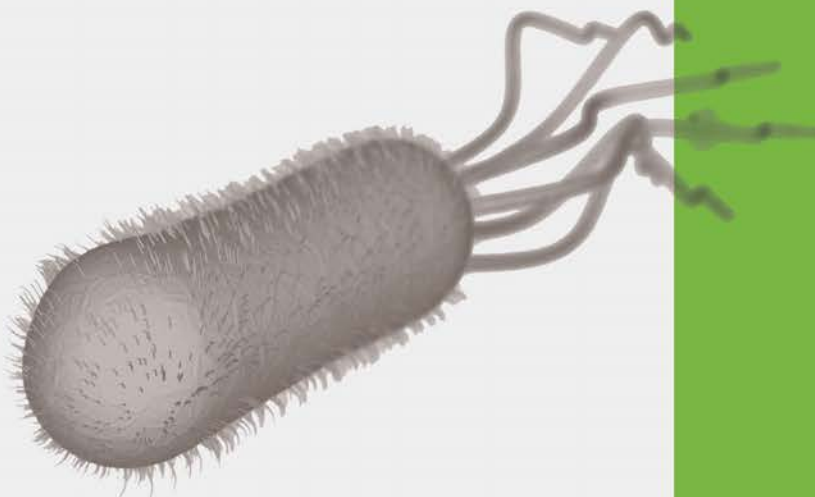
www.hygiena.com



Contents



| | |
|--|-------|
| Introduction to MicroSnap™ | 3 |
| Applications..... | 4 |
| Technology..... | 5 |
| Features & Benefits | 6-8 |
| Available Tests: | |
| <i>E. coli</i> | 9 |
| Coliform | 9 |
| Enterobacteriaceae | 9 |
| Total Viable Count..... | 9 |
| EnSURE™ Monitoring System & SureTrend™ Software..... | 10-11 |
| Catalog Numbers | 12 |
| Contact Information..... | 12 |



Better food safety by getting results **sooner.**

When it comes to microorganism testing, traditional and rapid methods still don't meet the speed and ease-of-use demands of food and beverage processors. Companies need same-day results so product can be released quickly and environmental contamination can be averted or minimized. MicroSnap™ is the only test that addresses these needs with same-shift results from an easy-to-use test.

MicroSnap offers significant improvements over traditional and other methods by reducing time, costs, and improving usability. The tests detect a larger dynamic range than traditional tests, making it flexible for a variety of applications. With MicroSnap, companies receive results sooner, become more efficient, and most importantly, improve food safety.



Instructional Demonstration Video



| | Traditional Methods | MicroSnap™ |
|----------------------------|---------------------|------------|
| Rapid Results | - | + |
| Labor and Material Savings | - | + |
| Wide Dynamic Range* | - | + |
| Probability of Detection | - | + |
| Easy to Use | + | + |
| Easy Sample Prep | + | + |
| Sensitivity | + | + |
| Specificity | + | + |
| Quantitative Results | + | + |

* MicroSnap range without sample dilution: 10-10,000 CFU.
Traditional: 15-300 CFU.

Rapid results **where** you need them most.



Raw Material Testing

Screen for microbiological contamination before materials go into processing.

- Prevent contaminated raw materials from entering production
- Avoid costly hold times that shorten raw material shelf life
- Prevent equipment down time and lost earning potential
- Quickly verify Certificates of Analysis on raw materials
- Move materials into production sooner to return investment faster



Plant Environmental Monitoring

Test environmental surfaces and equipment for same-day bacterial results of plant hygiene.

- Prevent environmental contamination from affecting several days of product
- Rapidly evaluate the effectiveness of cleaning and sanitation
- Show due diligence to auditors and customers
- Identify and troubleshoot problem areas in hours versus days
- Reduce outside laboratory costs by processing samples in-house



Finished Product Testing

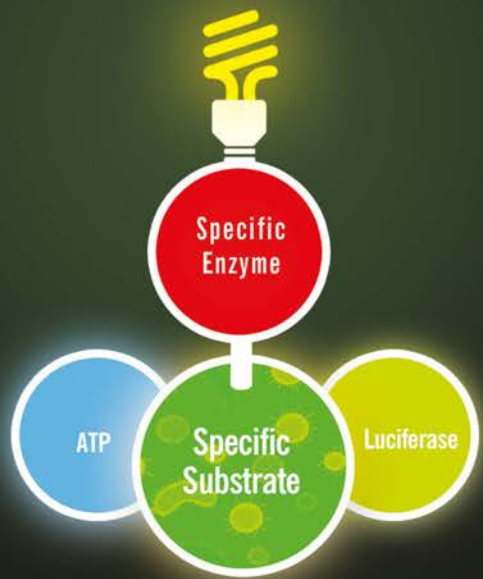
Verify microorganism levels sooner for quicker release and better quality assurance.

- Release time-sensitive products sooner
- React to contamination before product ships
- Prevent costly recalls
- Protect your brand name and reputation
- Test finished products in-house to cut outside laboratory costs



A new light on microbial detection.

MicroSnap is a rapid bioluminogenic test method for the detection and enumeration of bacteria, giving actionable test results in less than 8 hours. The MicroSnap test platform consists of an Enrichment Device containing a specific growth medium and a Detection Device containing a bioluminogenic (light-producing) substrate. When MicroSnap detects the specific microorganism, light is emitted and measured with Hygiene's EnSURE™ luminometer. Results are stored and tracked with Hygiene's complimentary SureTrend software for further data analysis and trending.

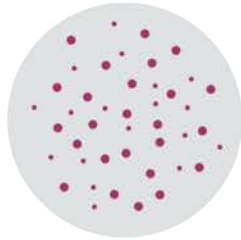


No more counting colonies.

CFU

Colony Forming Units

Traditional plating methods utilize colony counting techniques to determine CFU levels. MicroSnap technology derives equivalent CFU values using light detection.



RLU

Relative Light Units

EnSURE displays measurements in relative light units (RLU's). The RLU number is correlated to colony forming units (CFU's). Total, Coliform, and *E. coli* are AOAC-RI Performance TestedSM Methods.



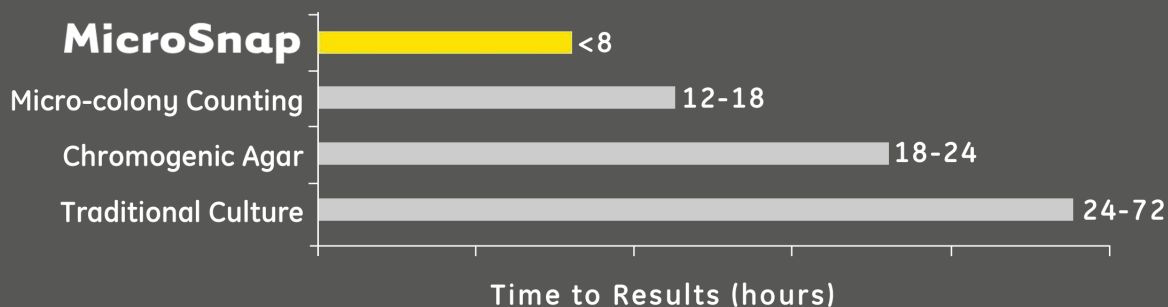
CFU : RLU - Conversion

| CFU/ml or swab* | <i>E. coli</i> | Coliform | Enterobacteriaceae** | Total |
|-----------------|----------------|----------|----------------------|--------|
| <10 | <2 | <2 | NA | <10 |
| <20 | <4 | <4 | NA | <20 |
| <50 | <7 | <7 | <10 | <50 |
| <100 | <12 | <12 | <20 | <100 |
| <200 | <20 | <20 | <40 | <200 |
| <500 | <35 | <35 | <100 | <500 |
| <1,000 | <60 | <60 | <200 | <1,000 |
| <5,000 | <180 | <180 | <1,000 | <5,000 |
| <10,000 | <300 | <300 | TNTC | TNTC |

*Direct sample e.g., 1 mL liquid or surface swab. Dilution factors must be accounted for with product samples.

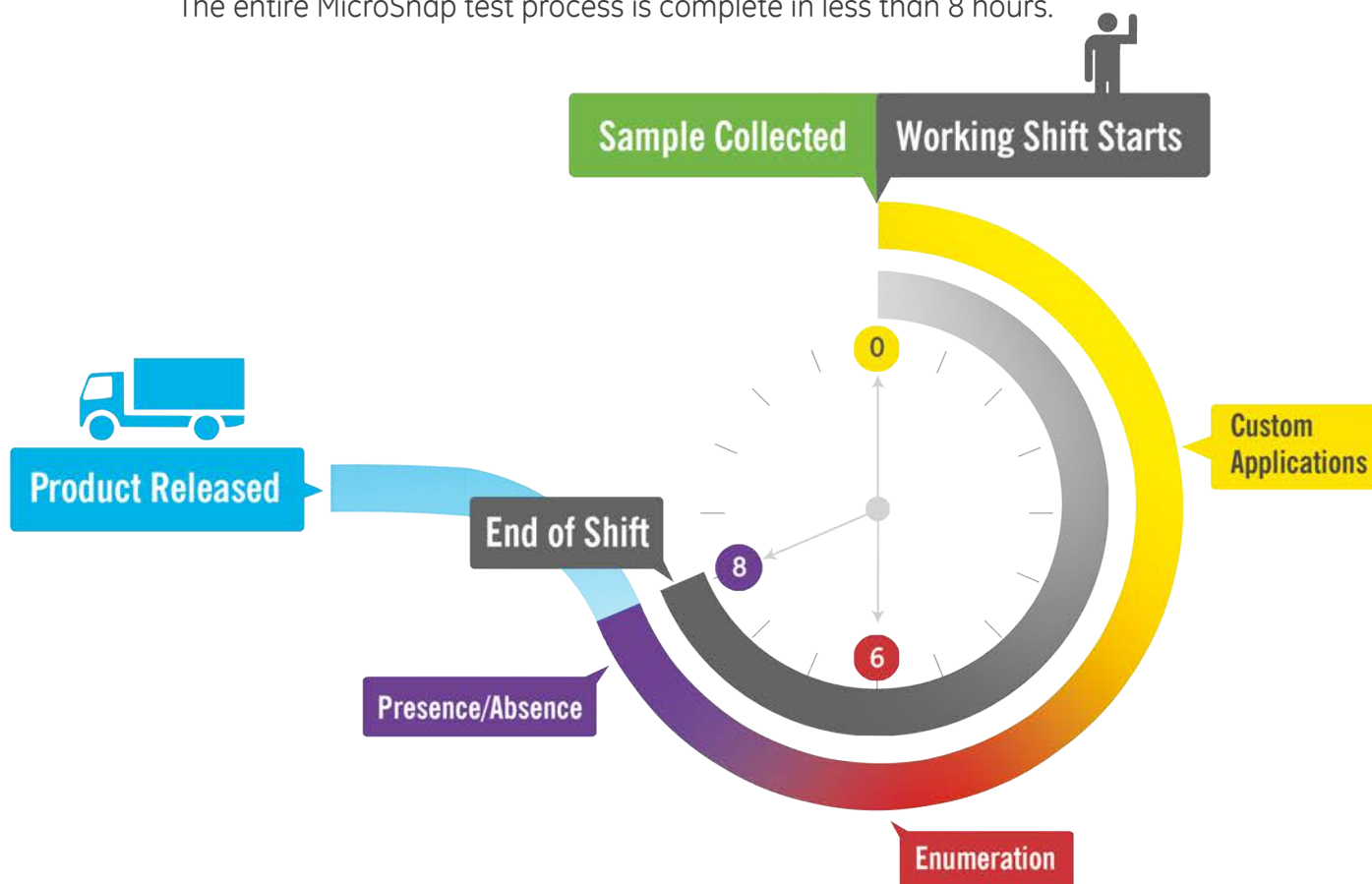
**Data reflects dynamic range after 6 hour incubation. See product instructions for more details.

Method Comparison : Time to Results



Same-shift results.

The entire MicroSnap test process is complete in less than 8 hours.



< 8 hours: Presence/Absence

Sample is collected and enriched at the beginning of the shift and incubated for up to 8 hours, depending on the test format.

6-7 hours: Enumeration

Sample is collected and enriched at the beginning of the shift and incubated for 6-7 hours, depending on the test format.

< 6 hours: Custom Applications

MicroSnap™ can deliver results even faster for applications with high detection limits. Contact us for customized instructions for your specific application.

E-mail your request to info@hygiene.com

Microbiology in a Snap

MicroSnap's efficient design makes microorganism testing easier than ever. Each device's patented **Snap-Valve** holds a precise amount of specific enrichment broth, ready to be used for either product or surface samples. Within the enrichment device is a **built-in pipette**, enabling convenient and efficient transfer of enriched sample to the detection device. After activation, the detection device delivers final results in ten minutes, making the total time to results **8 hours or less**. That means less time waiting for lab results or counting plates.



Additional Benefits

Reduce Materials



No serial dilutions to make.



Fewer replicates required.

Eliminate Lab Costs



Reduce lab fees.



No expensive overnight shipping.

Reduce Inventory Costs



Shorter product hold time.



Less inventory in warehouse.

Available Tests:

MicroSnap™ | *E. coli*



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

Instructional Video Online

Part No:
 Enrichment Device - MS1-CEC
 Enrichment Broth - MS1-CEC-BROTH-2ML
 Enhanced Nutrient Broth - MS1-N-BROTH-9ML
 Enhanced EB Broth - MS1-EB-BROTH-9ML
 Detection Device - MS2-ECOLI

Detects:
E. coli



MicroSnap™ | Coliform



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

Instructional Video Online

Part No:
 Enrichment Device - MS1-CEC
 Enrichment Broth - MS1-CEC-BROTH-2ML
New! Enhanced Nutrient Broth - MS1-N-BROTH-9ML
New! Enhanced EB Broth - MS1-EB-BROTH-9ML
 Detection Device - MS2-COLIFORM

Detects:
E. coli
Klebsiella
Citrobacter
Enterobacter



MicroSnap™ | Enterobacteriaceae



Detection Times:
 Enumeration - 6 - 7 hours
 Presence/Absence - 8 hours

Instructional Video Online

Part No:
 Enrichment Device - MS1-EB
New! Enhanced EB Broth - MS1-EB-BROTH-9ML
 Detection Device - MS2-EB

Detects all species within the Enterobacteriaceae family including:

| | |
|---------------------|-------------------|
| <i>E. coli</i> | <i>Serratia</i> |
| <i>Klebsiella</i> | <i>Shigella</i> |
| <i>Citrobacter</i> | <i>Salmonella</i> |
| <i>Enterobacter</i> | <i>Yersinia</i> |

MicroSnap™ | Total Viable Count



Detection Times:
 Enumeration - 7 hours

Instructional Video Online

Part No:
 Enrichment Device - MS1-TOTAL
 Enhanced Nutrient Broth - MS1-N-BROTH-9ML
 Detection Device - MS2-TOTAL

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

| | |
|-----------------|-----------------------|
| <i>E. coli</i> | <i>Staphylococcus</i> |
| <i>Listeria</i> | <i>Pseudomonas</i> |
| <i>Shigella</i> | |
| <i>Vibrio</i> | |
| <i>Bacillus</i> | |



EnSURE™

One Instrument | Multiple Tests

EnSURE is a quality monitoring system that uses a single instrument to collect and analyze 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 for the entire line of MicroSnap products. In addition, EnSURE measures tests for surface, water, and high-sensitivity ATP, and specific enzymes.



System Details:

- Stores up to 5,000 locations, 200 User ID's, 100 test plans
- Runs on 2 AA batteries for several months of use
- Advanced photodiode sensor is stable and robust
- No required calibration or yearly maintenance
- PC compatible via USB
- Part No: ENSURE

Additional Tests:

UltraSnap™ : Surface ATP



UltraSnap™ is a user-friendly surface ATP test device with a pre-moistened swab bud for better recovery of test sample.

Part No: US2020

AquaSnap™ : Water ATP



AquaSnap™ detects the presence of ATP in liquid samples. This pen-sized test device accurately monitors biomass and organic residue in water or liquid samples. Part No: AQ100FX/AQ100X

SuperSnap™ : Allergen Prevention



SuperSnap™ is a high-sensitivity ATP test device for surfaces and also an effective tool to for the prevention of allergen cross contamination, or when dealing with difficult samples.

Part No: SUS3000

CrossCheck: Acid Phosphatase



CrossCheck measures acid phosphatase enzyme activity on finished products to verify thermal processing and on food contact surfaces to measure raw meat residue hazards.

Part No: CX-3000

ZymoSnap ALP: Alkaline Phosphatase



ZymoSnap ALP measures alkaline phosphatase enzyme activity in milk and dairy samples for 5-minute verification of pasteurization efficacy.

Part No: ZS-ALP-100

SureTrend™

Data Analysis Software

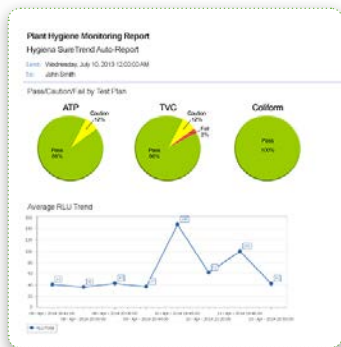
Pre-loaded Reports

Customizable and makes data analysis fast and easy.



Automated E-mails

Keeps you up to speed on facility hygiene levels.



The Dashboard

Puts important data right in front of you.

Learn more about **SureTrend** Software online at hygienea.com.



Step 1: Enrichment

PRODUCT

Enrichment Device: Coliform, *E. coli*
Enrichment Device: Enterobacteriaceae
Enrichment Device: Total Viable Count
Enrichment Broth: Coliform, *E. coli*
9 mL Enhanced Nutrient Broth: Total, Coliform, & *E. coli*
9 mL Enhanced EB Broth: EB, Coliform, & *E. coli*
Digital Dry Block Incubators

CATALOG NO.

MS1-CEC
MS1-EB
MS1-TOTAL
MS1-CEC-BROTH-2ML
MS1-N-BROTH-9ML
MS1-EB-BROTH-9ML
See website

QTY

100
100
100
100
100
100
1

Step 2: Detection

PRODUCT

MicroSnap *E. coli* Detection Device
MicroSnap Coliform Detection Device
MicroSnap Enterobacteriaceae Detection Device
MicroSnap Total Viable Count Detection Device

CATALOG NO.

MS2-ECOLI
MS2-COLIFORM
MS2-EB
MS2-TOTAL

QTY

100
100
100
100

EnSURE Monitoring System & SureTrend Software

ENSURE

1



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