

3M Microbiology

**3M™ Clean-Trace™ Hygiene Monitoring Systems**



# Effective Hygiene Monitoring



**3M**

## 3M™ Clean-Trace™ Tests.

Superior repeatability and excellent sensitivity helping to improve factory hygiene assessment



Effective environmental hygiene management helps reduce levels of contamination in finished products, leading to improved quality, fewer batch rejections and lower risk of product recall. The Clean-Trace systems offer rapid, simple and reliable solutions to monitor biological contamination on surfaces and in water in real time, helping you to protect your customers, your brands and your reputation.

### Proven performance in independent studies

Independent studies comparing a range of commercially available ATP bioluminescence tests have demonstrated the superior repeatability of the Clean-Trace system<sup>1,2</sup>.

- The studies concluded that the 3M system had a high degree of repeatability relative to the other systems
- One of the studies also compared the sensitivity of the Clean-Trace system to one of the other systems and concluded that the 3M system had 'better sensitivity'<sup>2</sup>

The high sensitivity and repeatability of the Clean-Trace ATP system give you confidence that results provide a true picture of cleaning performance allowing you to take sound actions that can save your company time and money.

Making  
Your  
Concerns  
our Priority.



## Why choose 3M™ Clean-Trace™ Tests for hygiene monitoring?

Fast time to result allowing you to

- Assess the hygienic status of production facilities in real-time
- Make rapid business decisions
- Implement immediate corrective actions
- Adopt pro-active sanitation procedures

## Proven real-time results you can rely on to make critical business decisions

- Consistent and repeatable results with high levels of sensitivity demonstrated in independent studies
- Used around the world by leading food and beverage manufacturers as an integral part of their HACCP plans
- Can be tailored to suit requirements of large manufacturing facilities or smaller catering establishments

## Increased operational efficiencies

- Powerful data trending software supplied with the 3M™ Clean-Trace™ NG Luminometer instrument to easily track and improve hygiene performance over time
- Provides information to optimise cleaning regimes which can generate savings in cleaning materials and labour requirements
- Helps create production environment conditions conducive for maximising shelf life of products

## Global experience, local support

- International expertise and availability of 3M Microbiology's dedicated technical and sales teams
- Trusted leader with over 20 years of experience in the industry
- Full range of innovative testing and monitoring solutions to help improve food quality and manage microbial risk



# 3M™ Clean-Trace™ ATP Systems

Clean-Trace surface and water ATP tests help assess standards of hygiene and cleaning procedures by measuring the amount of adenosine tri-phosphate (ATP) in a sample. The systems indicate overall biological contamination including microbiological and product residues for a fuller picture of the hygienic status of equipment.



## 3M™ Clean-Trace™ Surface ATP Swabs

- Self contained surface test designed to ensure samples can be collected in hard-to-reach places which are often difficult to clean
- Metal detectable and blue plastic handle for safe use in a food manufacturing environment
- A 30-second self-contained sanitation test to assess the standard of food production surfaces

## 3M™ Clean-Trace™ Water ATP Swabs

- Innovatively designed for water sample collection uniformity
- Detects the presence of biological contamination in Clean in Place (CIP) rinse water or other process waters
- Self-contained 30-second test for use with CIP rinse water or other process waters

## 3M™ Clean-Trace™ NG Luminometer & 3M™ Clean-Trace™ Data Trending Software

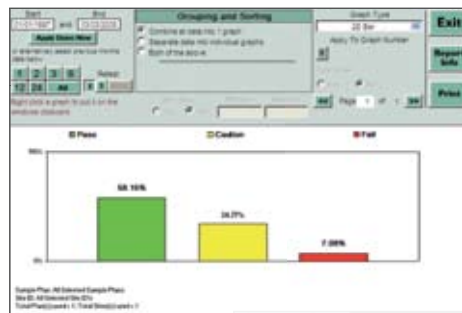
- Ergonomically designed instrument: handheld, lightweight for easy portability
- Simple menu-driven operation and high data storage capacity for maximum convenience and efficiency
- Most advanced data trending software to track the effectiveness of cleaning regimes

Reliable  
**Results**  
Consistently  
and Quickly.



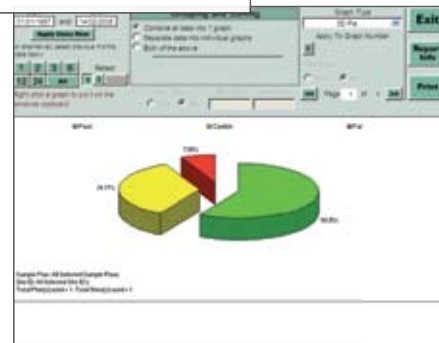
## Excellent sensitivity and superior repeatability

- The superior repeatability<sup>1,2</sup> and excellent sensitivity<sup>2</sup> of the 3M™ Clean-Trace™ ATP System give confidence that the results are accurate and allow you to make the correct decisions for your business



## Powerful and flexible software

- Advanced data trending and re-testing capabilities for easy identification of priority areas and continual improvement of hygiene standards
- Clear identification of re-test results alongside original results showing remedial actions and demonstrating due diligence
- Full trend analysis capabilities including filtering, sorting, charting and graphing to help comply with audit requirements



3M™ Clean-Trace™ Data Trending Software allows easy identification of problem areas to help drive continuous improvement in a sanitation programme.

## Rapid results

- Results available in 30 seconds allowing you to assess the hygienic status of production facilities in real time and implement immediate corrective actions and proactive sanitation procedures

## Easy to use

- The simplicity of tests reduces variability from user to user ensuring accurate and consistent results with minimal training costs



Swab/Dip



Click



and Read

## Other 3M™ ATP Products



### 3M™ Clean-Trace™ Beverage Test Kit

Detecting presence or absence of spoilage organisms in beverages

- Specifically designed for rapid detection of the presence or absence of spoilage organisms in filterable beverages such as beer, wine and soft drinks
- Faster than traditional methods e.g. 18-24 hours for aerobic and 48-72 hours for anaerobic micro-organisms

### 3M™ Clean-Trace™ Biomass Detection Kit

Testing aqueous samples containing particulates or fibres

- Assesses the amount of biomass in process waters, waste waters, water tanks and cooling towers by determining the total ATP present
- Helps determine the biological status of process equipment and the effects of biocide treatments
- Useful for testing aqueous samples requiring filtration and/or extraction such as those that are viscous or that contain particulates or fibres

### 3M™ Clean-Trace™ Positive Controls

Verifying the performance of reagents and instruments

- Designed to provide cost effective assurance that your 3M hygiene monitoring reagents and instruments are being stored and used correctly
- Can also be used as a quench test with 3M™ Clean-Trace™ Water ATP System and Clean-Trace biomass detection kit to determine whether a component in a sample is reducing the signal

Aiding  
Food Safety  
Around the World.



## 3M™ Clean-Trace™ Protein Tests

Detects protein and reducing agents on surfaces indicating the presence of protein residues. The residues remaining on surfaces after inadequate cleaning provide nutrients for spoilage or pathogenic bacteria to thrive that could lead to product contamination.

- **Easy to use** Can be performed with minimal training
- **Rapid** Results available within minutes
- **Simple** Visual reading of colour change and interpretation of results
- **Convenient** No instrumentation required



### 3M™ Clean-Trace™ Surface Protein Plus Test

- Semi-quantitative protein test with swab-click-read simplicity
- Easily accesses hard-to-reach areas
- Results available in 10 minutes or less if surface contamination is high

### 3M™ Clean-Trace™ Surface Protein Instant Test

- Economical alternative for customers who predominantly test flat surfaces
- Instant results

### 3M™ Clean-Trace™ Surface Protein (Allergen) Test

- Highly sensitive indicator of proteins including allergens. If a surface is found to have protein residues, it also indicates the possible presence of protein-based allergens
- Validated for a range of allergenic proteins, including egg, milk, gluten, soy and peanut
- Results in 15 minutes with the use of a 3M™ Digital Heating Block

## 3M™ Clean-Trace™ Hygiene Monitoring Tests

|  | Item #   | Unit      |
|--|----------|-----------|
| 3M™ Clean-Trace™ Surface ATP Test <sup>1</sup>   | UXL100   | 100 / ca  |
| 3M™ Clean-Trace™ Water – Total ATP <sup>2</sup>  | AQT100   | 100 / ca  |
| 3M™ Clean-Trace™ Water - Free ATP <sup>2</sup>   | AQF100   | 100 / ca  |
| 3M™ Clean-Trace™ NG Luminometer <sup>3</sup>   | UNG2     | 1/ea      |
| Including 3M™ Clean-Trace™ Data Trending Software <sup>4</sup>                               | BTPLUS4  |           |
| 3M™ Clean-Trace™ NG Luminometer Docking Station  | NSTATION | Each      |
| 3M™ Clean-Trace™ NG Luminometer Printer  | NPRINTER | Each      |
| 3M™ Clean-Trace™ NG Luminometer Soft Carry Case  | NGSB1    | Each      |
| 3M™ Clean-Trace™ Biomass Detection kit <sup>5</sup>  | ULW10    | 100 / ca  |
| 3M™ Clean-Trace™ Biomass Detection Cuvettes  | BTCUV    | 1000 / ca |
| 3M™ Clean-Trace™ Biomass Detection Cuvette Holder<br>for the 3M™ Clean-Trace™ NG Luminometer | NHT01    | Each      |
| 3M™ Clean-Trace™ Beverage Test Kit <sup>6</sup>  | UBT50    | 50 / ca   |
| 3M™ Clean-Trace™ Surface Protein Plus <sup>7</sup>   | PRO50    | 50 / ca   |
| 3M™ Clean-Trace™ Surface Protein Plus <sup>7</sup>   | PRO100   | 100 / ca  |
| 3M™ Clean-Trace™ Surface Protein Instant <sup>8</sup>  | CIT50    | 50 / ca   |
| 3M™ Clean-Trace™ Surface Protein (Allergen) <sup>9</sup>                                     | ALLTEC60 | 60 / ca   |
| 3M™ Clean-Trace™ Surface Protein - High Sensitivity <sup>10</sup>                            | MPRO50   | 50 / ca   |
| 3M™ Digital Heating Block  | DHB120   | Each      |
| 3M™ Clean-Trace™ Surface Positive Control <sup>11</sup>                                      | ATP10    | 10 / ca   |
| 3M™ Clean-Trace™ Water Positive Control (3ng ATP w/ 10ml water) <sup>11</sup>                | LWATP10  | 10 / ca   |
| 3M™ Clean-Trace™ Water Positive Control (30ng ATP w/ 10ml water) <sup>11</sup>               | HWATP10  | 10 / ca   |
| 3M™ Clean-Trace™ Adenylate Kinase Kit <sup>12</sup>  | AK100    | 100 / ca  |

Products were formerly known as <sup>1</sup>Clean-Trace™, <sup>2</sup>Aqua-Trace™, <sup>3</sup>Uni-Lite™ NG, <sup>4</sup>Biotrack™+, <sup>5</sup>Multi-Trace™, <sup>6</sup>Bev-Trace™, <sup>7</sup>Pro-tect™, <sup>8</sup>Check-It™, <sup>9</sup>TECRA™ Aller-tect™, <sup>10</sup>Pro-tect™ M, <sup>11</sup>Biotrace™ Positive Control and <sup>12</sup>Adenylate Kinase Kit.

#### References:

1. The repeatability of hygiene test systems in measurement of low levels of ATP. W.J. Simpson, C.J. Giles, H.A. Flockhart. Cara Technology Limited, Leatherhead Enterprise Centre, UK Report 30606, 27 July 2006.
2. Protocol for assessing the sensitivity of hygiene test systems for live microorganisms and food residue. W.J. Simpson, J.L. Archibald, C.J. Giles. Cara Technology Limited, Leatherhead Enterprise Centre, UK Report 120906, 27 July 2006.



### 3M Microbiology 3M Health Care Limited

3M House  
 Morley Street  
 Loughborough  
 Leicestershire LE11 1EP  
 Phone: 01509 613191  
 Fax: 01509 613087  
 Web: www.3m.com/microbiology

© 3M 2008.  
 All rights reserved

3M and Clean-Trace are trademarks of 3M and Biotrace International PLC, a 3M company, and are used under license in Canada.