



Oculer

Bringing Microbiology to Light

Revolutionising Microbiological Quality Testing for Food and Beverage Manufacturers

Global customer markets are rapidly trending towards the rejection of artificial preservatives in food and beverage products. This presents an increasingly challenging prospect for manufacturers whose reputation depends on product integrity and safety.

Oculer Rapid 930 Series instruments provide industrial microbiology labs with a fully automated, low-cost test platform for rapid quality control.



Typical test applications include:

- Long-life dairy products such as yoghurts and cheeses
- Plant-based beverages
- Refrigerated fruit juices, iced teas and energy drinks
- Custards and prepared desserts
- Alcohol-free beer and wine





Simple

An easy-to-use system for food producers, just add the sample to a pre-prepared vial containing specifically formulated culture media, place in the reader and walk away. The reader monitors oxygen levels in each vial delivering a pass/fail microbiology result in real time. The Oculer system eliminates the need for highly skilled staff and can be used directly on the manufacturing floor.



Fast

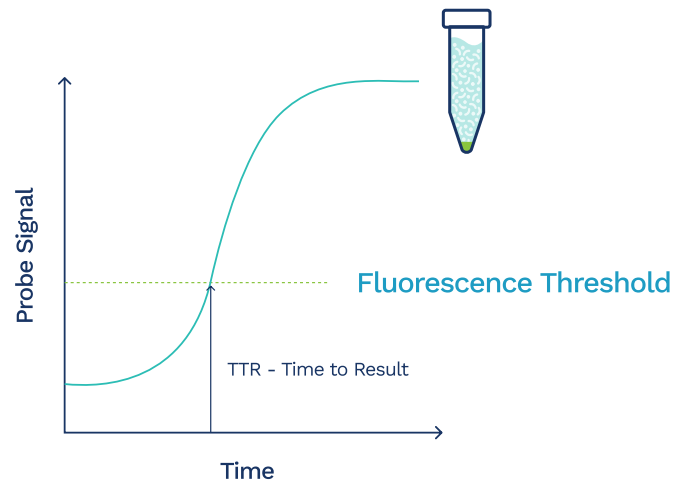
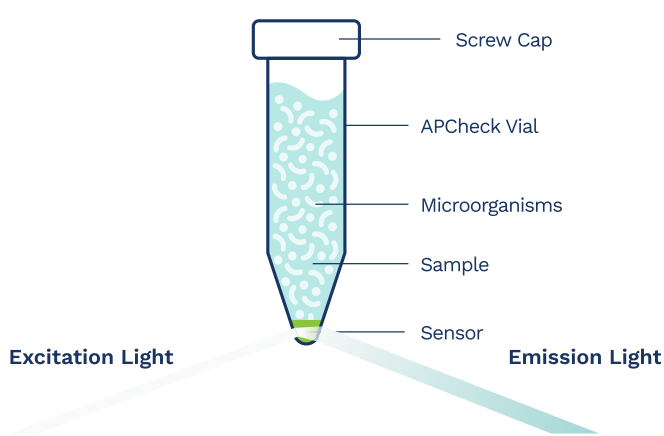
Pass results are obtained up to 72 hours faster than for traditional plates. Positive results are available in real time, allowing for immediate corrective action and reduction of production costs.



Accurate

By using bio-engineered growth media with up to 10ml of sample, the Oculer 930 can give a more accurate result compared to traditional and alternative rapid microbiological methods.

How it works



The Oculer system uses a luminescent sensor to detect oxygen depletion caused by the growth of target microorganisms in a selective medium which is specifically formulated for each application.

The limit of detection is one viable microbial cell in the test sample. Monitoring and reporting of results is performed automatically with all data analytics available centrally or remotely.

Practical solutions for customers



Yeast and Moulds



Total Bacterial Count



Commercial Sterility



Alicyclobacillus

- Our technology provides food and beverage manufacturers around the world the opportunity to avail of low-cost, accurate assays for contaminants.
- With the specialist Oculer validation and technical support teams you can be sure of expert advice when you need it.

Improve your cashflow and protect your brand with Oculer. Contact us today for a proof of concept discussion.



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Rapid Positive Release of
**COMMERCIALY
STERILE PRODUCTS**

SIMPLE - FAST - ACCURATE

Rapid Positive Release of COMMERCIALLY STERILE PRODUCTS

Manufacturers of dairy and plant-based Ultra High Temperature (UHT) and Extended Shelf Life (ESL) products, can now release finished product faster with a more streamlined workflow using the Oculer Commercial Sterility Check (CS-Check) assay.

The reduced time to result leads to lower warehouse costs, plus early warning of possible spoilage problems thereby reducing waste production and enabling immediate root cause investigation.

In a fast moving, routine production facility, it is essential to have a simple to use check on commercially sterile products, one that is rapid and more accurate than traditional plates. The Oculer CS-Check assay will automatically monitor and analyse samples, detecting the presence of microorganisms in as little as 24 hours compared to 72 hours on traditional plates. Results are available in real-time leading to much faster alerts of positives.

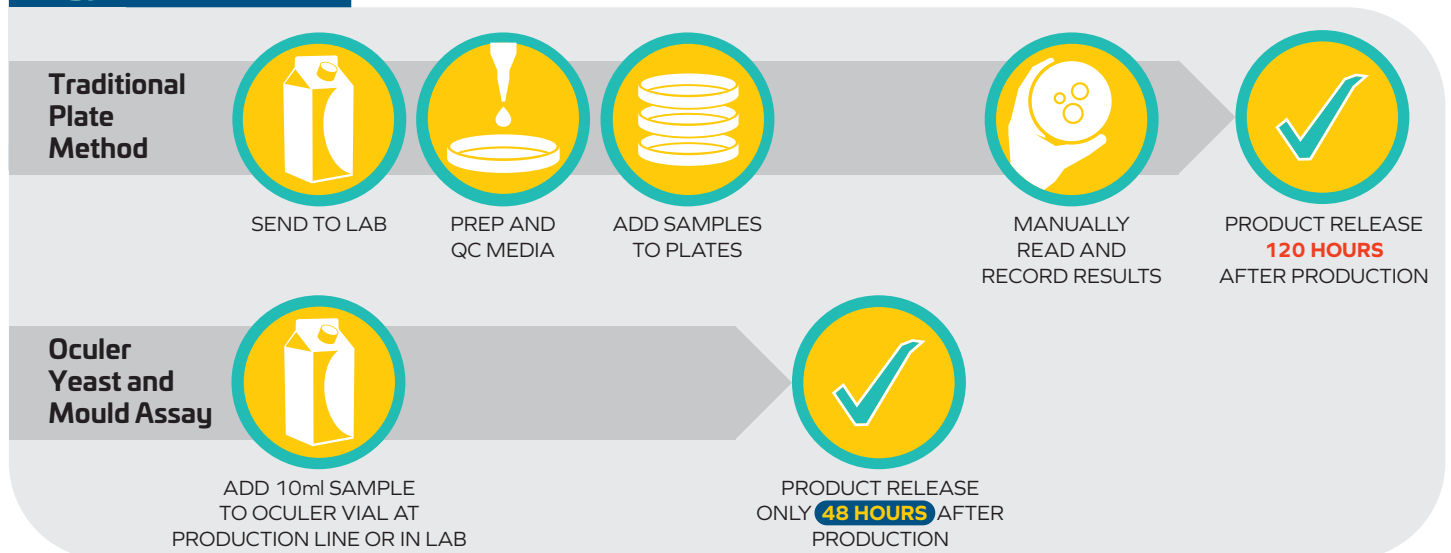
Using pre-prepared vials, stored at ambient temperature, the Oculer CS-Check assay, does not require a lab or specific microbiological expertise to achieve positive release on commercially sterile finished products.

How does it work?

The Oculer system uses a luminescent sensor to detect oxygen depletion caused by growth of yeast and moulds in a proprietary selective medium, specifically formulated for this application.



Typical workflow



Simple - Fast - Accurate

- Protect brand with positive release
- Not affected by opacity
- Same protocol for all products
- Automated alerts from multiple sites

Suitable for UHT or ESL Beverages

- Milks
- Yoghurts
- Flavoured milks
- Dairy or plant-based



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Automated
YEAST AND MOULD DETECTION
in Less Than 48 Hours

SIMPLE - FAST - ACCURATE

Automated YEAST AND MOULD DETECTION in Less Than 48 Hours

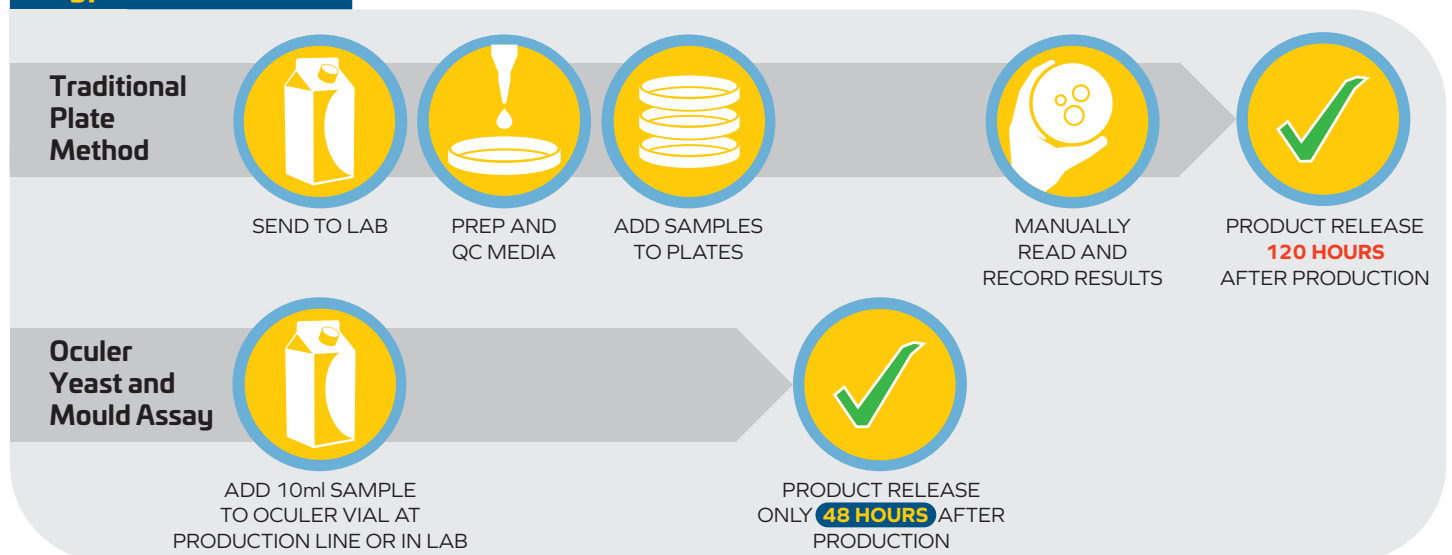
Manufacturers of fruit-containing beverages and desserts such as fruit yoghurts, smoothies, juices and flavoured milks, can now release finished product faster with the Oculer Yeast and Mould (Y+M) assay. The reduced testing time leads to lower warehousing costs, increased product shelf life; early warning of spoilage problems can reduce product wastage. Ideally suited to a fast moving, routine production facility, the Oculer Y+M assay will automatically monitor and analyse samples, detecting yeast and moulds in as little as 48 hours compared to 120 hours on traditional plates. Results are available in real-time leading to much faster notification of positives. Using pre-prepared vials of media stored at ambient temperature, the Oculer system does not require a lab or specific microbiological expertise.

How does it work?

The Oculer system uses a luminescent sensor to detect oxygen depletion caused by growth of yeast and moulds in a proprietary selective medium, specifically formulated for this application.



Typical workflow



Simple - Fast - Accurate

- Not affected by pulp or opacity
- Same protocol for all products
- Automated alerts from multiple sites
- Protect your brand with positive release

Suitable for Fruit-Containing Beverages and Desserts including:

- Yoghurts
- Smoothies
- Juices and concentrates
- Flavoured Milks
- Dairy or Plant Based

Oculer EM-Check® Surface Contamination Test

OC-ENV-06 Microbial Detection Kit



The Oculer EM-Check Surface Microbial Detection Kit is an all-inclusive, ready-to-use kit which simplifies and quickens the process of environmental surface testing for biological contamination. The kit uses Oculer's Rapid 930 Series Technology for the automated detection of microbial activity on cleanroom surfaces using a design that reduces the likelihood of sample cross-contamination and mishandling of samples by the operator.

The OC-ENV-02 kit is intended to be used with the Oculer 930 Series automated reader. The reader's internal LED sends light to the polymer sensor located in the kit vial. The optical system detects the decay of the fluorescence signal emission, which correlates to the oxygen depletion over time due to the respiration of microorganisms in the sample. The system is flexible and allows either enumeration produced from an internal calibration, or a pass/fail test based on presence/absence of oxygen depletion over time. The instrument software allows continuous measurements of oxygen depletion within the reader or endpoint measurements from externally incubated samples.

The OC-ENV-02 kit with Oculer's dedicated reader offers:

- A traditional, growth-based method with enhanced sensitivity due to the oxygen sensing technology
- Non-destructive testing allows further analysis or speciation by traditional methods
- Suitability for Class A/ISO 5 classified areas and lower
- An ideal way to sample the most critical and hard-to-reach points identified by risk assessment
- High recovery of surface microbial contaminants using certified flocked swabs
- Faster time-to-result by using an oxygen-sensitive probe assay
- Automated sample analysis eliminating human reading subjectivity
- Up to 24 samples can be automatically processed per carousel

BENEFITS

Time-to-Result

- Achieve results typically within 24 hours
- Increase sensitivity by maximising recovery
- Advanced test tracking and reliability

Cost Saving

- Easier disposal than agar plates
- No extra costs and risks due to reagent dispensing
- Reduces risks of false positives in aseptic production areas and related investigations

Test Ready

- Fully prepared and disposable
- Minimizes operator handling
- Eliminates unintended contamination

Reduced Operator Handling

- Decreases time-consuming and operator-dependent manipulations
- Simplified standard operating procedures
- Faster sampling steps
- Easy lift-out interchangeable carousel

FEATURES

- Standard TSB culture media
- FLOQSwab™ flocked swab with SRK™ for highest recovery swabbing (>70% each lot).
- Reduced variability on results
- Eliminate cleaning validation studies for culture media residues required for contact plate method
- Compact design and low maintenance reader
- Integrated incubator
- Intuitive screen monitor
- Easy-to-read dashboard with tabular graphics
- Result as Presence/Absence or as colony forming units (CFU)
- Secure results and 21 CFR part 11 and EU GMP Annex 11 compliance
- Compatible with Microsoft Windows 10®

APPLICATIONS

- Microbiological surface sampling in cleanrooms and associated controlled environments
- Microbiological monitoring of equipment, operator clothing and gloves
- Easy monitoring of critical point in RABS and isolators

Bringing Microbiology to Light

Ocüler EM-Check® Surface Contamination Test

OC-ENV-06 Microbial Detection Kit - SPECIFICATIONS



Surface Detection Kit

Materials	Each individual gamma irradiated peel pouch kit contains: - EM-Check® Vial: polypropylene vial with integrated platinum porphyrin polymer and 10 ml of TSB - FLOQSwab: flocked swab in polypropylene tube with sponge and 1ml of Surface Rinse Kit™ (SRK)	
Dimensions	EM-Check® Vial - 15 ml capacity vial: - 120 mm length including red stopper - 17 mm diameter	Swab tube: - 175 mm total length including green stopper - 12 mm external diameter
Filling Volume	10 ml	
Media	Tryptic Soy Broth (TSB)	
Additives	Neutralizers included in the SRK buffer	
Packaging Option	Two bags containing five kits each are triple-bagged together, 20 of the triple-bagged units are placed inside a fourth plastic bag to produce a final package containing a total of 200 vial kits.	
Storage Temperature	5 °C - 25 °C (41 °F to 77 °F)	
Approximate Detection	10 ⁰ to 10 ⁸ cells	

Ocüler Rapid 930 Series Automated Reader

Model	Model 930-15 uses 15 ml capacity vials or adapters	Operating Temperature	18 °C to 24 °C (64.4 °F to 75.2 °F)
Test capacity	24 vials	Storage Temperature	10 °C to 35 °C (50 °F to 95 °F)
Throughput	Up to 216 tests in pass/fail mode	Relative Humidity	0 - 95% non-condensing
Power (adaptor supplied)	100-240 VAC, 50-60 Hz Output 72 W max	Dimensions (H x W x D)	31.8 x 30.50 x 38.14 cm (12.52 x 12.01 x 15.02 in)
USB ports	1 USB peripheral port 1 external Barcode Reader port	Weight	12.30 kg (27.12 lbs)
Internal Incubation Temperature	Ambient 2 °C to 40 °C (35.6 °F to 104 °F)	Accessories	Laptop computer (pre-loaded with Ocüler software), extra carousel (24 places), external Barcode Reader
Language	Manageable by end-user		

The OCUSwab™ vial uses Ocüler Rapid 930 Series® Technology; Rapid 930 Series® is a registered trademark of Ocüler Ltd. FLOQSwab™ and Surface Rinse Kit™ (SRK) are trademarks of COPAN Diagnostics Inc. Windows 10® is a registered trademark of Microsoft Inc. All other trademarks are the property of their respective company. Ocüler Ltd reserves the right to change specifications without notice. © 2022 Ocüler Limited. All rights reserved.

