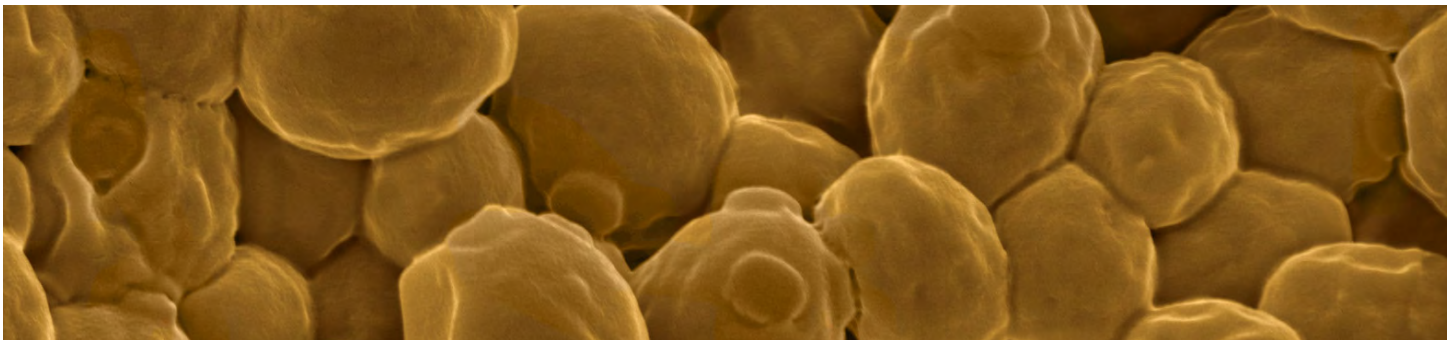


Nalco Yeast Activity Monitor

Measuring yeast metabolic activity to ensure optimal performance

NALCO
An Ecolab Company

The Nalco Yeast Activity Monitor measures yeast metabolic activity, providing a direct measurement of fermentation and propagation performance. This knowledge enables brewers to adjust process factors to obtain peak performance, resulting in a more consistent, high quality product and decreased total cost of operation.

The Nalco Brewing Team is the leader in Water and Energy Management

Only Nalco brings you the technologies that will **DETECT** system conditions, automatically **DETERMINE** appropriate response and **DELIVER** unprecedented water and energy savings while protecting your equipment assets.

- 3D TRASAR™ Technology for Cooling Water
- 3D TRASAR Technology for Boilers
- 3D TRASAR Technology for Reverse Osmosis
- 3D TRASAR Technology for Pasteurizers

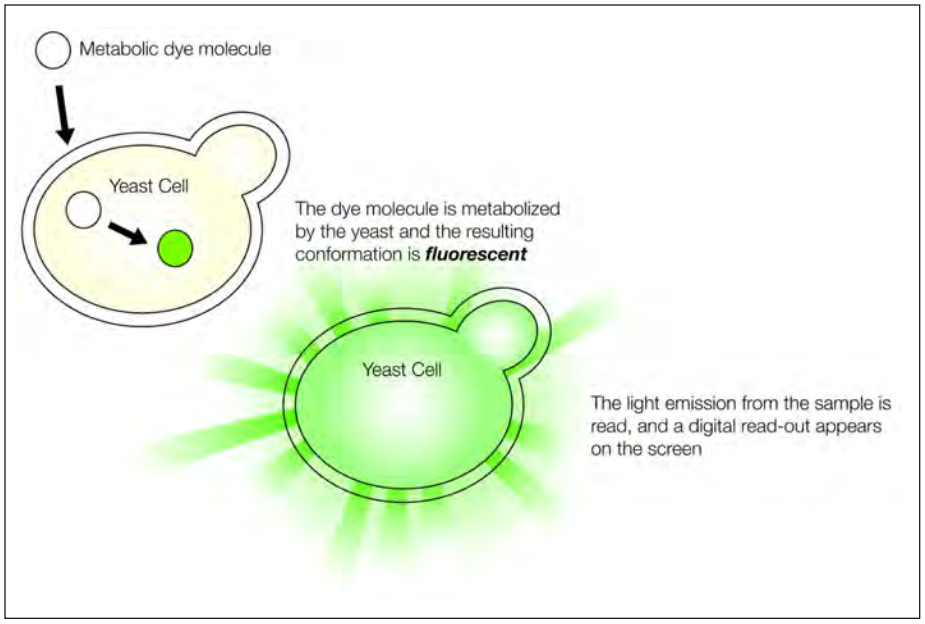
3D TRASAR™ TECHNOLOGY

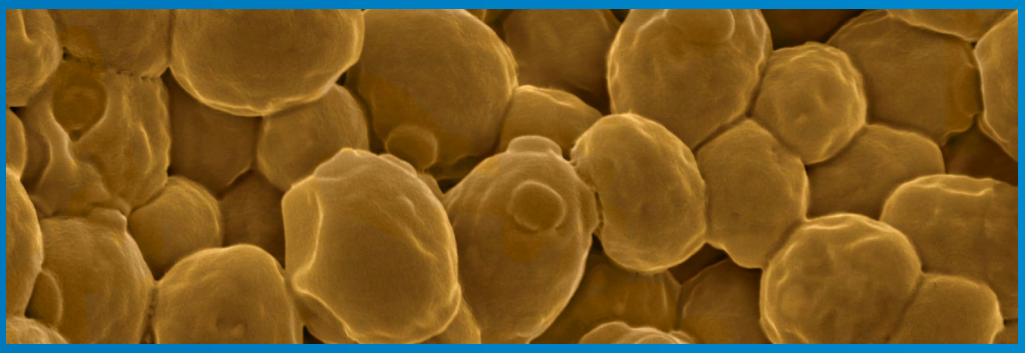
Ask us about our process programs for breweries:

- The Nalco Yeast Activity Monitor consistently measures metabolic activity rates in under 3 minutes.

Innovative Technology

The Nalco Yeast Activity Monitor draws its power from fast, fluorescence-generating reactions between native yeast enzymes and biochemical reporter molecules. Samples are quickly and precisely prepared on a digital balance and then innovative probes are immersed directly into the prepared sample to measure yeast metabolic activity rates. Reaction timing, data management, and procedural workflows are all handled by a dedicated touch screen computer. The end result is a revolutionary system that delivers consistent results regardless of operating conditions, sample compositions, or operator technique.





Improve Fermentation and Propagation Diagnostics

The Nalco Yeast Activity Monitor gives brewers unique insight into their fermentation processes that has never before been possible. Unlike traditional methods, the Nalco Yeast Activity Monitor **measurements correlate with the rate of fermentation.**

Use the Nalco YAM to measure yeast metabolic activity at all stages of fermentation. In addition, use the YAM to compare fermentation profiles under different operating conditions and fermenter geometries.

Tracking yeast activity during propagation and sending the yeast to the fermenter at the optimum time ***reduces lag time and improves batch to batch consistency.*** Since many factors affect the yeast growth, optimum propagation time can be a moving target. Use the Nalco Yeast Activity Monitor and know exactly when to send yeast to the fermenter. In addition, use the Yeast Activity Monitor to determine the exact amount of cropped yeast to repitch into the next batch.

With the Nalco Yeast Activity Monitor, there is no longer a need for unreliable cell counting methods. Measure the metabolic activity rates during propagation, fermentation, and cropping ***to ensure optimum performance.***

Yeast Activity Monitor Brewing Applications

Yeast propagation
- Maximize activity per cell
- Optimize transfer to fermentation

Cropped yeast quality
- Reuse or discard?

Cropped yeast storage/transport
- Still good to use?

Fermentation pitching rates
- Determine pitch rates based on activity
- Improve fermentation time, flavor profiles, etc.

Fermentation monitoring
- Visualize batch kinetics

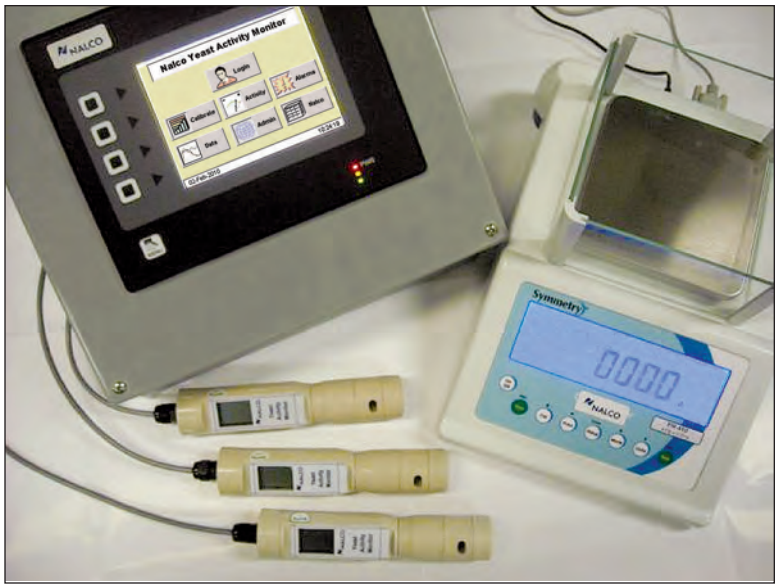
Maximize Data Management

In order to maximize the power of automated yeast activity measurements, the Nalco Yeast Activity Monitor provides several data management features. First, all results are logged and stored in computer readable files. These files can be viewed on the Nalco Yeast Activity Monitor touch screen or sent via email to anywhere in the world. In addition, the Nalco Yeast Activity Monitor can automatically send the most recent activity results over your corporate network in real-time for integration into laboratory databases or control systems. The Nalco Yeast Activity Monitor data management system gives operational management maximum return on information to improve fermentation performance.

Eliminate Cell Counting

The industry standard method of counting viable cells using light microscopy and a viability stain suffers from several limitations. The microscopy method is labor-intensive, error-prone and fails to provide useful information for diagnosing or optimizing industrial propagation and fermentation.

In contrast, the Nalco Yeast Activity Monitor measures metabolic activity rates, which is fundamentally different and more useful information than counting how many cells are present. By using the Nalco Yeast Activity Monitor you will better understand the dynamic performance of your process and be able to perform advanced diagnostics and optimization steps based on real performance information.



The Nalco Yeast Activity Monitor was designed to be a completely non-subjective measurement that produces consistent results regardless of operator technique. In addition, the Nalco Yeast Activity Monitor tests require only 30 seconds of hands-on time followed by an automated series of measurements lasting less than 3 minutes, which is significantly less time and effort compared to counting cells.

Nalco, an Ecolab Company
North America: ***Headquarters*** – 1601 West Diehl Road • Naperville, Illinois 60563 • USA
Nalco Champion – 7705 Highway 90-A • Sugar Land, Texas 77478 • USA
Europe: Richtistrasse 7 • 8304 Wallisellen • Switzerland
Asia Pacific: 2 International Business Park • #02-20 The Strategy Tower 2 • Singapore 609930
Latin America: Av. das Nações Unidas 17.891 • 6° andar • São Paulo • SP • Brazil • CEP 04795-100

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