



Diastaticus-Broth with Indicator

Version: 07/2022
M&S item number: 4029 (25 tests) and 4029-100 (100 tests)
Profile: Glass tubes with Durham tubes
Color: Turquoise with starch layer on bottom
Storage: Dark and dry at room temperature
Shelf life: 8 months after production

Description and application range

Diastaticus-Broth with indicator is used for enrichment and detection of beer-spoiling yeast *Saccharomyces cerevisiae* var. *diastaticus* for all kinds of samples during brewing process and for quality control of end products.

The nutrient formulation of the broth especially promotes the growth of this yeast because of its ability to metabolize starch. *Saccharomyces cerevisiae* culture yeasts are inhibited due to not having this ability. Copper sulphate inhibits the growth of bacteria.

The indicator facilitates the detection of *S. diastaticus* yeast by color changing from turquoise to greenish in 3-7 days depending on the yeast amount. *S. diastaticus* needs some time for enrichment and start metabolizing the starch. During the advanced stage of this process *S. diastaticus* produces a lot of gas. The inserted Durham tube collects this gas and shows a big air bubble. Slightly slewing/moving the glass tube can support visualizing gas production. The medium is manufactured and quality tested in compliance with ISO 11133:2014 + Amd. 2:2020 standard.

Final pH: 5.5 ± 0.2 at 25 °C

Microbiological quality control

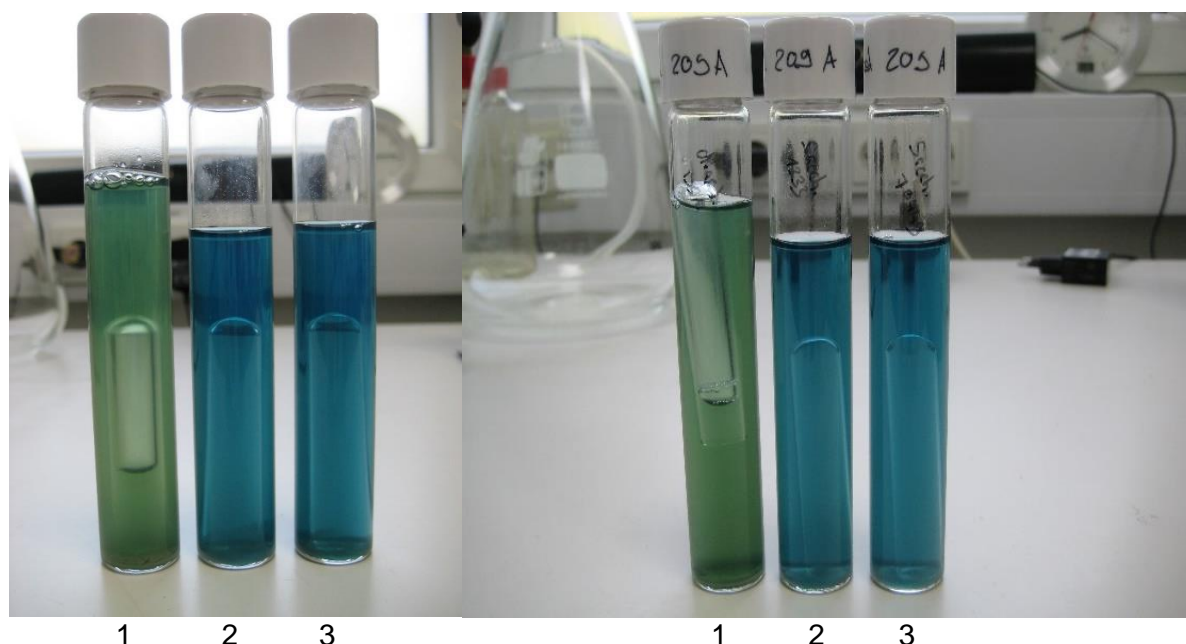
Bacterial contamination

Incubation: aerobically at room temperature for 5 days, specification: no growth

Productivity qualitative analysis

Incubation: 3-5 days at 25 ± 1 °C, anaerobically (closed caps, loosen once a day for safety), mixing the media once a day

| Microorganism | Test strain | Specification | Appearance |
|-----------------------------------|-------------|---|--|
| <i>S. diastaticus</i> | DSM 70487 | Good growth, color changing, gas production | Turbidity, color changing to light green, gas in Durham tube |
| <i>S. cerevisiae</i> | DSM 70449 | Inhibited | Fully inhibited |
| <i>S. cerevisiae</i> | WDCM 00058 | Inhibited | Fully inhibited |
| <i>Zygosaccaromyces rouxii</i> | DSM 7525 | Weak growth | Slightly turbidity possible, no color changing, no gas |
| <i>Schizosaccharomyces pombe</i> | DSM 70576 | Weak growth | Slightly turbidity possible, no color changing, no gas |
| <i>Brettanomyces bruxellensis</i> | DSM 70001 | Weak growth | Slightly turbidity possible, no color changing, no gas |



1. *S. diastaticus* DSM 70487 (1ml beer added)
 2. *S. cerevisiae* WDCM 00058 (added with inoculum loop)
 3. *S. cerevisiae* DSM 70449 (added with inoculum loop)
- Pictures with two different lots of Diastaticus-Broth