

Specification

Solution for the detection of microbial growth on the basis of TTC reduction

Presentation

1 Prepared Bottle
Bottle 125 ml
with: 100 ± 3 ml

Packaging Details

1 box with 1 bottle (amber) 125 ml. Injectable cap:
Plastic screw inner cap. The use of syringes needles
with a diameter greater than 0.8 mm is not
recommended.

Shelf Life

24 months

Storage

4-12 °C

Composition

Composition (g/l):

2,3,5 Triphenyl tetrazolium chloride..... 10.0
Steril distilled water..... 1000 ml

Reagent to be added, as aerobic indicator,
into culture media : Tergitol ® 7 Agar Base,
Slanetz Bartley Agar Base, PCA, TSA, etc.

Description /Technique

1% 2-3-5-triphenyl-2H-tetrazolium chloride sterile solution. It is used as an additive for culture media to show biological activity, since the colourless form gets hydrogenized or reduced to a red insoluble pigment: triphenyl-formazan, which may be easily observed.

Despite of TTC decomposes at 240°C, it is not advisable to incorporate it to culture media before sterilization, because it lose efficacy. Very good results may be achieved when the addition is carried out aseptically with cold medium at 60°C maximum. TTC is photolabile and over time, depending on exposure to light and temperatures, it can acquire different shades of color, from pale yellow to intense red, therefore keep it in the refrigerator and avoid direct light.

Concentration of use vary depending on the medium, but generally it goes between 0,3 and 1% (v/v).

This product is especially produced to be added to the following media:

- Agar Chapman TTC (Tergitol 7® Agar)
- Agar Slanetz y Bartley (SB Agar)
- General purpose media : TSA or PCA

Quality control

Physical/Chemical control

Color : Colorless - light yellow /

Microbiological control

Add 2,5ml to 1l of medium TSA / pour into plates

Inoculate: Practical range 100 ± 20 CFU. min. 50 CFU (productivity)/ 10⁴-10⁶ (selectivity).

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 37 °C ± 1, reading after 24-48 ± 2h

Microorganism

Escherichia coli ATCC® 8739, WDCM 00012
Salmonella enterica ATCC® 13076, WDCM 00030
Enterococcus faecalis ATCC® 29212, WDCM 00087

Growth

Good- dark red colonies
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Good- dark red colonies

Sterility control

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

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