

TECHNICAL DATA SHEET

Article No. 8055

TTC Solution 1 %, sterile

SPECIFICATION

Reagent to be added as aerobic indicator into many microbiological culture media.

COMPOSITION (G/VIAL)

2,3,5-Triphenyltetrazolium Chloride	10.0 g
Sterile distilled water	1000 ml

DESCRIPTION

TTC solution 1 % is used as an additive for culture media to show biological activity, since the colourless form gets hydrogenated or reduced to a red, insoluble pigment, triphenyl-formazan, which can be easily observed. Despite TTC decomposing at 243 °C, it is not advisable to incorporate it to culture media before sterilization, because it loses efficiency.

Very good results may be achieved when the addition is carried out aseptically with cold medium at max. 60 °C. TTC is photolabile and is coloured yellow by the effect of light. Therefore it should be kept in the refrigerator and direct light must be avoided.

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

This product is particularly suited to be added to the following media:

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

QUALITY CONTROL

- Physical/chemical control: Colour transparent
pH at 25 °C
- Microbiological control: Add 2.5 ml to 1 l of TSA and pour into plates.
Inoculum: Practical range 100 ±20 CFU, min. 50 CFU (productivity)/ 10⁴-10⁶ (selectivity). Aerobiosis. Incubation at 37 ±1 °C, reading after 24-48 ±2 h.

Microorganism	Growth	Remarks
<i>Escherichia coli</i> ATCC® 8739	Good - dark red colonies	None
<i>Salmonella enterica</i> ATCC® 13076	Good - dark red colonies	None
<i>Enterococcus faecalis</i> ATCC® 29212	Good - dark red colonies	None

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Amtsgericht Stuttgart / HRA-Nr. 254140
Persönlich haftende Gesellschafterin:
Geyer Beteiligungsgesellschaft mbH
Amtsgericht Stuttgart / HRB-Nr. 252035
Geschäftsführer: Lutz-Alexander Geyer / Thomas Roth

- Sterility control: Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: No growth.
Check at 7 d after incubation at the same conditions.

REFERENCES

- ATLAS, R.M., L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- CHAPMAN G.H. (1951) A culture medium for detecting and confirming E. coli in ten hours. Am. J. Publ. Hlth 41:1381-1386.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Foods. 3rd ed. APHA. Washington.
- GUINEA, SANCHO, PARES (1979) Análisis Microbiológico de Aguas. Ed. Omega. Barcelona.
- ISO 9308-1:2000 Standard. Water Quality - Detection and enumeration of Escherichia coli and coliform bacteria - Part 1: Membrane filtration method.
- SPECK, M (Ed.) (1982) Compendium of Methods for the Microbiological Examination of Foods. 2nd ed. APHA. Washington.

STORAGE

4-12 °C

SHELF LIFE

24 months from date of production.

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