

TECHNICAL DATA SHEET

Article No. 9561

Thioglycollate Medium Ph. Eur./USP, ready-to-use medium

SPECIFICATION

Ready-to-use culture medium, sterile. Fluid medium used for sterility testing and for the cultivation of microaerophilic and anaerobic organisms. Ph. Eur./USP, ISO 7937

Colour: Yellow
pH: 7.1 ± 0.2 at 25 °C

COMPOSITION IN G/ L

Casein peptone	15.00
Yeast extract	5.00
D(+)-Glucose (Dextrose)	5.50
Sodium chloride	2.50
Sodium thioglycollate	0.50
L-Cystine	0.50
Resazurin	0.001
Agar	0.75

PACKAGE DETAILS

9561-20x9ML

Volume 9 ± 0.3 ml
Packaging unit 20 tubes
1 box of 20 x 8 ml in tubes. Glass tubes 16 x 113 mm, metal cap

9561-10x100ML

Volume 100 ± 3 ml
Bottle size 125 ml
Packaging unit 10 bottles
1 box with 10 x 100 ml in 125-ml-bottles. Injectable cap: Plastic screw inner cap + protective outer red cap.
For use with syringe needles with a diameter ≤ 0.8 mm.



9561-10x200ML

Volume 200 ± 5 ml
Bottle size 250 ml
Packaging unit 10 bottles

1 box with 10 x 200 ml in 250-ml-bottles. Injectable cap: Plastic screw inner cap + protective outer red cap.
For use with syringe needles with a diameter ≤ 0.8 mm.

9561-10x300ML

Volume 300 ± 5 ml
Bottle size 500 ml
Packaging unit 10 bottles

1 box with 10 x 300 ml in 500-ml-bottles. Injectable cap: Plastic screw inner cap + protective outer red cap.
For use with syringe needles with a diameter ≤ 0.8 mm.

9561-10x450ML

Volume 450 ± 5 ml
Bottle size 500 ml
Packaging unit 10 bottles

1 box with 10 x 450 ml in 500-ml-bottles. Injectable cap: Plastic screw inner cap + protective outer red cap.
For use with syringe needles with a diameter ≤ 0.8 mm.

9561-6x600ML

Volume 600 ± 10 ml
Bottle size 1 L
Packaging unit 6 bottles

1 box with 6 x 600 ml in 1-L-bottles. Injectable cap: Plastic screw inner cap + protective outer red cap.
For use with syringe needles with a diameter ≤ 0.8 mm.

DESCRIPTION/ TECHNIQUE

Description:

Thioglycollate Fluid Medium is a standard medium formulated and recommended by the European Pharmacopoeia, USP, APHA and FDA. The reducing agents thioglycollate and L-Cystine ensure anaerobiosis which is adequate even for fastidious anaerobes.

The -SH groups of these substances also inactivate arsenic, mercury and other heavy metal compounds. Thioglycollate media are thus suitable for the examination of materials which contain heavy metals or heavy metal preservatives. In the present formulation a special agar with a high viscosity but a very low turbidity is used. A very slow cooling is recommended to prevent stratification. The higher viscosity of the fluid thioglycollate medium prevents rapid uptake of oxygen. Any increase in the oxygen content is indicated by the redox indicator sodium resazurin which changes colour to pink.

Technique:

For the inoculation of bottles, follow the standard laboratory method or the applicable norms, (Stab inoculation, loop inoculation, dilution banks, etc ...)

The methodology is according to the standard methods described in the Pharmacopoeia.

Inoculate the culture medium with the sample material taking care that the sample reaches the bottom of the container.

Incubate for at least 14 days at the optimal temperature. Anaerobes grow in the lower part of the culture medium container.

Precautions and limitations of the procedure:

- Store the prepared medium away from light at room temperature.
- If more than 30% of the medium is pink prior to use reheat once at 100°C to drive off absorbed oxygen.
- Do not reheat the medium more than once; continued reheating gives rise to toxicity.
- Due to nutritional variation, some strains may grow poorly or fail to grow on this medium.
- Some glucose-fermenting organisms which are able to reduce the pH of the medium to a critical level may not survive in this medium.

Early sub-culture is necessary to isolate these organisms.

MICROBIOLOGICAL CONTROL

Inoculated into final container

Inoculate: 50-100 CFU (productivity) according to harmonized Eur. Pharmacopoeia and ISO 11133 standard.

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

Aerobic. Incubation at 30-35 °C for 18-72h (bacteria) and 20-25 °C for 3-5 days (moulds and yeast).

Cl. perfringens ATCC® 13124 at 37 °C reading after 24 ± 3h

Microorganism	Growth
<i>Clostridium sporogenes</i> ATCC® 19404, WDCM 00008	Good - in anaerobic zone
<i>Ps. aeruginosa</i> ATCC® 9027, WDCM 00026	Good - in aerobic zone
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Good - in aerobic and anaerobic zone
<i>Candida albicans</i> ATCC® 10231, WDCM 00054	Good - in aerobic zone
<i>Clostridium perfringens</i> ATCC® 13124, WDCM 00007, NCTC® 8237	Good - in anaerobic zone
<i>Aspergillus brasiliensis</i> ATCC® 16404, WDCM 00053	Good - in aerobic zone
<i>Bacillus subtilis</i> ATCC® 6633, WDCM 00003	Good - in aerobic zone

Sterility control:

Incubation 14 days at 32.5 ± 2 °C: NO GROWTH.

Incubation 14 days at 22.5 ± 2 °C: NO GROWTH.

REFERENCES

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- MacFADDIN, J.F. (1985) Media for Isolation-cultivation-identification-maintenance of medical bacteria. Vol. I. Williams & Wilkins. Baltimore. MD. USA.
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STORAGE

2 - 25 °C

SHELF LIFE

15 months unopened from date of manufacture for medium in bottles
12 months unopened from date of manufacture for medium in tubes

updated: 07.07.2023

