PRODUCT DATA SHEET

DIAGNOSTIC THIOGLYCOLLATE MEDIUM W/O INDICATOR TM 447

For cultivation and isolation of obligate and facultative aerobic, anaerobic and microaerophilic bacteria and for sterility tests

Composition

Ingredients	Gms/Ltr.
Casein enzymatic hydrolysate	17.000
Dextrose	6.000
Papaic digest of soyabean meal	3.000
Sodium chloride	2.500
Agar	0.700
Sodium thioglycollate	0.500
L-Cystine	0.250
Sodium sulphite	0.100

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 30.05gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool the medium in upright position. For optimal performance the stored medium should be boiled and cooled to ambient temperature before use. Boiling restores the uniform opalescent appearance of the medium.

Appearance: Light amber colour, slightly opalescent viscous solution
pH (at 25°C): 7.0 ± 0.2

Principle

DIAGNOSTIC THIOGLYCOLLATE MEDIUM W/O INDICATOR is used **for** cultivation and isolation of obligate and facultative aerobic, anaerobic and microaerophilic bacteria and for sterility testing. It is an enriched general-purpose medium and the lack of an indicator avoids possible toxicity to organisms, making it suitable for diagnostics purpose. This medium supports microbial growth with minimal inoculation with early onset of growth. Strict aerobes grow in the upper part, while anaerobes grow at the bottom of the medium. With the addition of 10% serum this medium can be used for the cultivation of *Trichomonas vaginalis* and other microorganisms that depend on serum for growth.

Casein enzymatic hydrolysate and Papaic digest of soyabean meal provide nitrogen, vitamins, minerals and amino acids essential for growth. Sodium thioglycollate, sodium sulphite and L-Cystine lower the oxidation-reduction potential by removing oxygen to maintain a low Eh. Dextrose acts as energy source. Sodium chloride maintains the osmotic balance. Agar in less amount helps in anaerobiosis by delaying the dispersion of CO_2 and diffusion of O_2.

This medium can also be used as transportation medium by incorporation of calcium carbonate. Calcium carbonate neutralizes the acid, produced during growth and avoid rapid growth and death of gram-negative cocci, Clostridium perfringens and other acid-sensitive bacteria

Interpretation

Cultural characteristics observed after inoculating (10^3 CFU/ml), on incubation at 35 - 37°C for 18 – 48 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
Bacteroides vulgatus	8482	10^3	Poor-fair
Clostridium sporogenes	19404	10^3	Good-luxuriant
Candida albicans	10231	10^3	Good-luxuriant
Bacillus subtilis	6633	10^3	Good-luxuriant
Neisseria meningitidis	13090	10^3	Good-luxuriant
Streptococcus pyogenes	19615	10^3	Good-luxuriant

References

1. Brewer, J.H. 1940. J. Bacteriol., **39:** 10.
2. Vera, H.D. 1944. J. Bacteriol., **47:** 59-70.
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4. Baron, E.J., Peterson, L.R. and Finegold, S.M. 1994. Bailey & Scott's diagnostic microbiology, 9th ed., Mosby-Year Book, Inc. St. Louis, MO.