TM 1222 – LIQUOID BROTH

INTENDED USE
For testing blood samples from bacteremic cases.

PRODUCT SUMMARY AND EXPLANATION
In most bacteriemic conditions in man, the organisms are not numerous. Therefore, for their demonstration by blood culture, relatively large amount of blood e.g. 5-10 ml should be used as inoculum. As the bloods natural bactericidal or bacteriostatic action may interfere with the growth of any bacteria present, diluting the blood with medium should annul this effect. The technology of blood culture was revised by Gould and Duerden. Upto 10 ml or more blood may be added to 100 ml of broth without a detectable antibacterial effect. The antibacterial effect may be further prevented by incorporation of substances such as sodium polyanethol sulphonate (SPS).
Liquoid Broth is used for the culturing of blood specimens from suspected bacterimia cases. Liquoid (Sodium polyanethol sulphonate) is a good anticoagulant. Moreover, it is not inhibitory and has the added advantage of annulling the natural bactericidal action of blood.

COMPOSITION

Ingredients	Gms / Ltr
Calf brain, infusion from	12.50
Beef heart, infusion from	5.000
Proteose peptone	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate	2.500
Dextrose (Glucose)	2.000
Sodium polyanethol sulphonate	0.500

PRINCIPLE
This medium consists of rich ingredients for blood culture. Calf brain, infusion from and proteose peptone provide the necessary carbonaceous and nitrogenous nutrients, vitamins and growth factors to the organisms. Dextrose is the carbon source and sodium chloride maintains the osmotic equilibrium of the medium. It is advisable to seed more than one medium for blood culture. One of each set of bottles should be incubated in an atmosphere of air with 10% CO_2. It is essential to loosen the caps of bottles during incubation. Growth may produce a generalized turbidity; make subculture from all bottles to solid media.

INSTRUCTION FOR USE
- Dissolve 37.5 grams in 1000 ml purified/distilled water.
- Heat if necessary to ensure complete solution.
- Dispense into bottles or tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- If desired, 1 gm/litre agar can be added to encourage growth of anaerobic organisms. For best results, use the medium on the day it is prepared otherwise boil or steam it to remove dissolved oxygen just before use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured, clear solution without any precipitate.
pH (at 25°C) : 7.4 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	35-37°C	24-48 Hours
Salmonella Typhi	6539	50-100	Luxuriant	35-37°C	24-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Luxuriant	35-37°C	24-48 Hours
Streptococcus pyogenes	19615	50-100	Good-luxuriant	35-37°C	24-48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

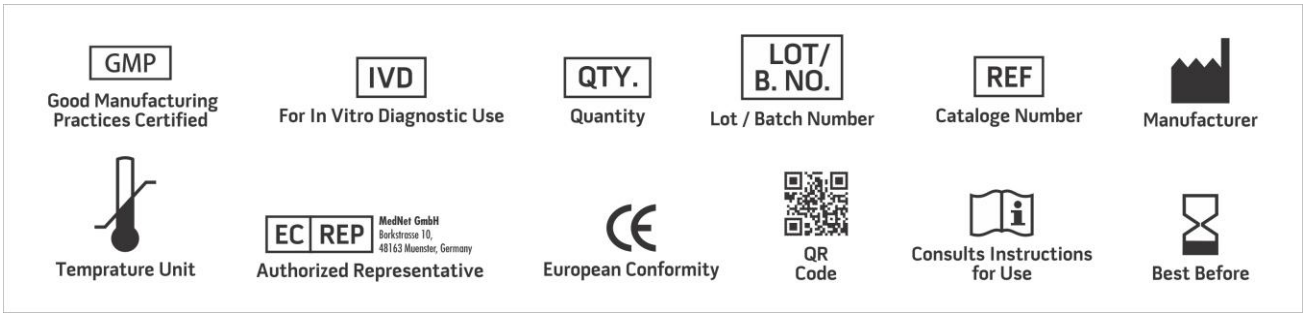
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
2. Gould J. C., Duerden B. I., 1983 (Ed.), J. Clin. Pathol., 36: 963-977
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Von Haebler T., Miles A. A., The Journal of Pathology and Bacteriology, Vol. 46, Issue 2, Pages 245- 252.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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