PRODUCT DATA SHEET



TM 486 – WL - NUTRIENT BROTH

INTENDED USE

For cultivation of yeasts, molds and bacteria encountered in breweries and industrial fermentations.

PRODUCT SUMMARY AND EXPLANATION

WL (Wallerstein Laboratory) media are formulated as described by Green and Gray for the examination of materials encountered in brewing and for industrial fermentations containing mixed flora of yeast and bacteria. Baker's yeast counts can be carried out in this medium at a pH 5.5. By adjusting the pH to 6.5, the medium can be used for obtaining counts of Baker and distillers yeast. If desired Durham's tubes can be added to WL Nutrient Broth to study fermentation reactions.

COMPOSITION

Ingredients	Gms / Ltr		
Tryptone	5.000		
Yeast extract	4.000		
Dextrose (Glucose)	50.000		
Potassium dihydrogen phosphate	0.550		
Potassium chloride	0.425		
Calcium chloride anhydrous	0.125		
Magnesium sulphate	0.125		
Ferric chloride	0.0025		
Manganese sulphate	0.0025		
Bromo cresol green	0.022		

PRINCIPLE

The medium consists of Yeast extract which serves as a source of trace elements, vitamins and amino acids. Tryptone is used as a source of nitrogen, amino acids and carbon. Dextrose is the source of carbohydrate. Buffering of the medium is done by potassium dihydrogen phosphate. Potassium chloride, calcium chloride and ferric chloride are essential ions that help to maintain the osmotic balance. Magnesium sulphate and manganese sulphate are sources of divalent cations. Bromo cresol green is a pH indicator.

INSTRUCTION FOR USE

- Dissolve 60.25 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes or flasks or as desired Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. If desired to obtain a pH of 6.5, add 1% solution of sodium bicarbonate before sterilization.

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QUALITY CONTROL SPECIFICATIONS

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.





Appearance of Powder	Light yellow to light green homogeneous free flowing powder.				
Appearance of prepared medium	: Bluish green coloured very slightly opalescent solution in tubes.				
pH (at 25°C)	: 5.5 ± 0.2				

INTERPRETATION

Cultural characteristics observed in tubes containing inverted Durham's tubes after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Gas	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Fair-good	Positive reaction, yellow colour	Positive	35-37°C	40-48 Hours
Lactobacillus fermentum	9338	50-100	Fair-good	Positive reaction, yellow colour	Slightly positive	35-37°C	40-48 Hours
Saccharomyces cerevisiae	9763	10-100	Good	Positive reaction, yellow colour	Positive	30-32°C	upto 5 days

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

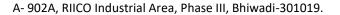
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

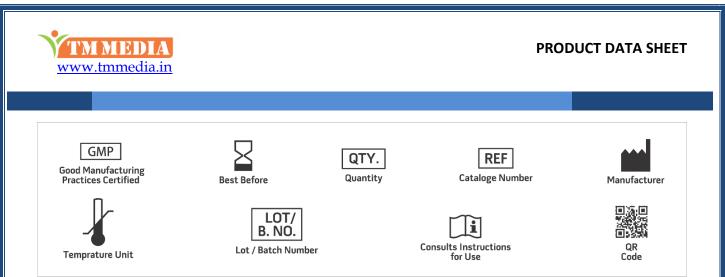
REFERENCES

- 1. Green S. R. and Gray P. P., 1950, Wallerstein Lab. Commun., 12:43
- 2. Green S. R. and Gray P. P., 1950, Wallerstein Lab. Commun., 13:357

3. MacFaddin J. F., 1985, Media for Isolation-Cultivation- Identification- Maintenance of Medical Bacteria, Vol.1, Williams & Wilkins, Baltimore, Md.

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NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only Revision: 08 Nov., 2019

