

## Technical Information

### Yeast Nitrogen Base w/o Amino Acids

**Product Code: DM 1878**

**Application:** - Yeast Nitrogen Base without Amino Acids is used for investigating carbon and nitrogen requirements of yeasts.

### Composition\*\*

Ingredients	Gms / Litre
Ammonium sulphate	5.000
Monopotassium phosphate	1.000
Magnesium sulphate	0.500
Sodium chloride	0.100
Calcium chloride	0.100
Boric acid	0.0005
Copper sulphate	0.00004
Potassium iodide	0.0001
Ferric chloride	0.0002
Manganese sulphate	0.0004
Sodium molybdate	0.0002
Zinc sulphate	0.0004
Biotin	0.000002
Calcium pantothenate	0.0004
Folic acid	0.000002
Inositol	0.002
Niacin	0.0004
p-Amino benzoic acid (PABA)	0.0002
Riboflavin (Vitamin B2)	0.0002
Pyridoxine hydrochloride	0.0004
Thiamine hydrochloride	0.0004
Final pH ( at 25°C)	5.4±0.2

\*\*Formula adjusted, standardized to suit performance

### Principle & Interpretation

Yeast Nitrogen Base without Amino Acids devised by Wickerham<sup>(1, 2)</sup> and is used for investigating amino acid and carbohydrate requirement of yeasts. This medium has the same composition as Yeast Nitrogen Base (DM1139) medium except the amino acids histidine, methionine and tryptophan.

Inoculate media tubes with very light inoculum and incubate at 25°C for 6-7 days and again for 20-24 days. Draw lines with India ink on a paper. If lines are not seen or appear diffused through the culture, the test is considered positive and if the lines are distinguishable, test is considered negative.

### Methodology

For best results the medium is prepared in 10X strength. Suspend 6.7 as grams powder media in 100 ml distilled water. Add 5 grams dextrose or an equivalent amount of other carbohydrate and other chemicals like amino acids that modify growth of yeasts as desired and sterilize by filtration. For use, dilute 0.5 ml 10X medium to make 5 ml with sterile distilled water. Mix well.

## Quality Control

### Physical Appearance

White to cream homogeneous free flowing powder

### Colour and Clarity of prepared medium

Colourless to light yellow coloured clear solution without any precipitate

### Reaction

Reaction of 0.67% w/v aqueous solution at 25°C. pH : 5.4±0.2

### pH range

5.20-5.60

### Cultural Response/Characteristics

DM 1878: Cultural characteristics observed after an incubation at 25-30°C for 6-7 days (longer if necessary upto 24 days).

Organism	Growth (Plain)	Growth with dextrose
<i>Kloeckera apiculata</i> ATCC 9774	none-poor	good
<i>Saccharomyces uvarum</i> ATCC 28098	none-poor	good

## Storage and Shelf Life

**Dried media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

**Prepared Media:** 2-8<sup>0</sup> in sealable plastic bags for 2-5 days.

## Further Reading

1. Wickerham L. J., 1951, U.S. Dept. Agric. Tech. Bull. No. 1029.
2. Wickerham L. J., 1946, J. Bacteriol., 52:293.

## Disclaimer :

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