Yeast Nitrogen Base without Amino Acids and Ammonium Sulphate is used for classifying yeasts based on carbohydrate and amino acids requirements. This medium lacks the amino acids, histidine, methionine and tryptophan and also ammonium sulphate. Yeast Nitrogen Base is prepared as per the formulations of Guenter (3), which in turn is modification of Wickerham’s formulation (7). Yeast Nitrogen Base without Amino Acids and Ammonium Sulphate contains essential nutrients and vitamins necessary for cultivation of yeasts, except amino acids and a source of nitrogen and carbohydrates.

Wickerham employed the following nitrogen sources: ammonium sulphate 1gm, potassium nitrate 0.78 gm, urea 0.46 gm, asparagine 1 gm, peptone (gelatin) 1.32 gms.

For A and B, filter sterilize the 10X strength solution. Refrigerate and use as needed. Prepare final medium by aseptically pipetting 0.5 ml of the 10X sterile medium into 4.5 ml sterile distilled water. Mix well.

Principle And Interpretation

Yeast Nitrogen Base without Amino Acids and Ammonium Sulphate is used for classifying yeasts based on carbohydrate and amino acids requirements. This medium lacks the amino acids, histidine, methionine and tryptophan and also ammonium sulphate. Yeast Nitrogen Base is prepared as per the formulations of Guenter (3), which in turn is modification of Wickerham's formulation (7). Yeast Nitrogen Base without Amino Acids and Ammonium Sulphate contains essential nutrients and vitamins necessary for cultivation of yeasts, except amino acids and a source of nitrogen and carbohydrates. Wickerham used the following nitrogen sources - ammonium sulphate 1.0 gm/l, potassium nitrate 0.78 gm/l, urea 0.46 gm/l, asparagine 1.0 gm/l, peptone (gelatin) 1.32 gm/l. Yeasts grown on rich medium may carry a reserve of nitrogen in the form of proteins that may result in erroneous findings. To avoid this, 2 serial transfers in complete medium are recommended. After sufficient incubation, measure the growth turbidimetrically at 660 nm using spectrophotometer and compare with control.

Please refer disclaimer Overleaf.
Type of specimen
Food Samples.

Specimen Collection and Handling:
For food samples, follow appropriate techniques for sample collection and processing as per guidelines (1,5,6).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions:
Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations:
1. Further biochemical tests must be carried out for confirmation.

Performance and Evaluation
Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control
Appearance
White to cream homogeneous free flowing powder

Colour and Clarity of prepared medium
Colourless (at 10X concentration colour of medium is pale yellow) clear solution without any precipitate.

Reaction
Reaction of 0.17% w/v aqueous solution at 25°C. pH : 4.5±0.2

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 6-7 days.

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth (Plain)</th>
<th>Growth w/ additions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kloeckera apiculata ATCC 9774</td>
<td>none-poor</td>
<td>good</td>
</tr>
<tr>
<td>Saccharomyces cerevisiae ATCC 9763 (00053*)</td>
<td>none-poor</td>
<td>good</td>
</tr>
<tr>
<td>Saccharomyces uvarum ATCC 28098</td>
<td>none-poor</td>
<td>good</td>
</tr>
</tbody>
</table>

Key * : Corresponding WDCM Numbers

Storage and Shelf Life
Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Use before expiry date on the label.
Product performance is best if used within stated expiry period.

Disposal
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).
Reference


2. Guenter, Personal communication.


