

Technical Information

SCHWARZ Differential MiVeg Medium

Product Code : VM2331

Application:- SCHWARZ Differential MiVeg Medium is used in the brewing industry for the differentiation of brewing yeasts from wild yeasts.

Composition

Ingredients	Gms / Litre
MiVeg peptone	5.00
Yeast extract	3.00
Malt extract	3.00
Dextrose	10.00
Basic fuchsin	0.47
Sodium sulphite	2.92
Dextrin	0.11
Agar	20.00
Final pH (at 25°C)	6.9 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

SCHWARZ Differential MiVeg Medium is prepared by adding MiVeg peptone thereby making this medium free from BSE/TSE risks associated with animal based peptones. This medium is the modification of SCHWARZ Differential Medium which is recommended for use in the brewing industry for the differentiation of brewing yeasts from wild yeasts.

MiVeg peptone and yeast extract supplies all the essential nutrients to support the growth of the yeasts. Malt extract, dextrose serves as carbon source. Also dextrin, a complex carbon source is utilized by few brewing yeasts, like *Saccharomyces diasticus*. Sodium sulphite and basic fuchsin inhibits most gram-positive bacteria. Acid producing bacteria are identified by the depth of a clear zone around the colonies. Actidione may be added to the medium to suppress the undesired growth of wild culture yeast. The prepared plates darken during incubation. Wild yeasts form pink colonies which may be smooth, mucoid or wrinkled. Brewing yeasts forms a thin haze of micro colonies which blend with the colour of the medium.

Methodology

Suspend 44.50 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling with constant stirring for 15 minutes. DO NOT AUTOCLAVE. Cool to 45°C and pour into sterile plates. Efficacy of the plates can be improved by incubating them at 30°C for 18 hours before use.

Caution: Basic fuchsin is a potential carcinogen thus utmost care should be taken to prevent dye inhalation and contact with the skin.

Quality Control

Physical Appearance

Orangish pink coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Light pink coloured, clear gel forms in petri plates.

Reaction

Reaction of 4.45% w/v aqueous solution is pH 6.9 ± 0.2 at 25°C.

pH Range

6.7 - 7.1

Cultural Response/Characteristics

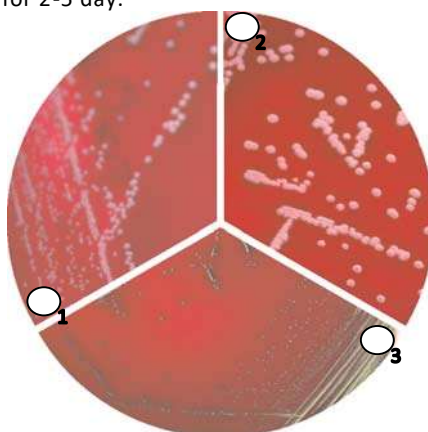
Cultural characteristics observed after an incubation at 30°C upto 4 days (colour of the plates darkens during incubation).

Organisms (ATCC)	Growth	Colour of Colony
<i>Candida albicans</i> (10231)	luxuriant	white to light pink raised colonies
<i>Candida krusei</i> (24408)	luxuriant	pink, rough, flat colonies
<i>Saccharomyces cerevisiae</i> (9763)	luxuriant	pink colonies

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° in sealable plastic bags for 2-5 day.



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1. *Candida albicans*
2. *Candida krusei*
3. *Saccharomyces cerevisiae*

Further Reading

1. L. Jespersen, M. Jakobsen, Specific spoilage organisms in breweries and laboratory media for their detection, Int. J. of Food Microbiol., Vol. 33, 1, p 139-155 (1996).
2. A. van der Aa Kühle, L. Jespersen, Detection and identification of wild yeasts in lager breweries, Int. J. of Food Microbiol., Vol. 43, 3, p 205-213 (1998).
3. T. Deák, L.R. Beuchat, Handbook of food spoilage yeasts, 2nd Edition (2007)

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate.
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