

CM 21580 - SCHWARZ DIFFERENTIAL MEDIUM

INTENDED USE

For differentiation of brewing yeasts from wild yeasts.

PRODUCT SUMMARY AND EXPLANATION

Schwarz Differential Medium is recommended for use in the brewing industry for the differentiation of brewing yeasts from wild yeasts.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Yeast extract	3.000
Malt extract	3.000
Dextrose (Glucose)	10.000
Basic fuchsin	0.470
Sodium sulphite	2.920
Dextrin	0.110
Agar	20.000

PRINCIPLE

Malt extract, peptone and yeast extract provide necessary nutrients to support the growth of yeasts. Dextrose is the suitable carbohydrate for the growth of yeasts. Sodium sulphite and basic fuchsin inhibit the gram-positive microorganisms.

The prepared plates darken during incubation. Wild yeasts form pink colonies which may be smooth, mucoid or wrinkled. Brewing yeasts form a thin haze of micro colonies which blend with the colour of the medium.

INSTRUCTION FOR USE

Dissolve 44.50 grams in 1000 ml purified distilled water.

Heat to boiling with constant stirring for 15 minutes, do not autoclave.

Cool to 45-50°C and pour into sterile plates.

Efficacy of the plates can be improved by incubating them to 30°C for 18 hours before use.

Caution: Basic fuchsin is a potential carcinogen and care should be taken to avoid inhalation of the powdered dye and contamination of the skin.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Pinkish purple to Purple coloured homogeneous free flowing powder.
 Appearance of prepared medium : Light pink coloured clear to slightly opalescent gel forms in Petri plates.
 pH (at 25°C) : 6.9±0.2

INTERPRETATION

Cultural response observed after incubation (colour of plates darkens during incubation).



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
Candida albicans	10231	10-100	Luxuriant	>=70%	White to light pink raised colonies	30°C	Upto 4 days
Candida kruisei	24408	10-100	Luxuriant	>=70%	Pink, rough, flat colonies	30°C	Upto 4 days
Saccharomyces cerevisiae	9763	10-100	Luxuriant	>=70%	Pink colonies	30°C	Upto 4 days

PACKAGING:

Inpacksizeof500 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.

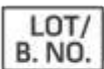
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. A.vander 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).
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.
4. 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).
5. T. Deák, L.R. Beuchat, Handbook of food spoilage yeasts, 2nd Edition (2007)

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

