TM 1033 – OSMOPHILLIC AGAR (MY 40 AGAR)

INTENDED USE

For detection and isolation of osmophillic microorganisms from food samples.

PRODUCT SUMMARY AND EXPLANATION

Osmophilic yeasts usually are the cause of spoilage of high-sugar foods, including jams, honey, concentrated fruit juices, chocolate candy with soft centres etc. Osmophilic yeasts are of no public health significance, but are of economic importance to the food industry. A simple presence-absence test for detection of small numbers of osmotolerant yeasts in high-sugar foods is useful for enumeration. Osmophilic Agar (MY 40 Agar) is generally used for this purpose. Walker and Ayers in their review have differentiated between osmophilic yeasts and osmoduric yeasts. Almost all of the known osmophilic yeasts are *Saccharomyces* species e.g. *Saccharomyces rouxii*, *var. polymorphus, Saccharomyces mellis* etc. Improved recovery of osmophillic yeasts has been reported on media, which resemble the composition of the food under examination or contain high sugar concentrations. Osmophilic Agar is recommended for cultivation of a wide variety of osmophilic organisms. MY in MY-40 Agar stands for malt extract and yeast extract and 40 for the 40% of sucrose in the medium, which meets the requirements of the medium.

COMPOSITION

Ingredients	Gms / Ltr
Malt extract	20.000
Yeast extract	5.000
Sucrose	400.000
Agar	20.000

PRINCIPLE

The medium consists of malt extract and yeast extract which supply the nitrogenous nutrients, amino acids, vitamins, trace ingredients to the osmophilic yeasts. 40% sucrose in the medium satisfy the nutritional need of these yeasts.

INSTRUCTION FOR USE

- Dissolve 44.5 grams in 100 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. DO NOT OVERHEAT.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Off-white to yellow homogeneous free flowing powder.

Appearance of prepared medium : Medium amber coloured slightly opalescent gel forms in Petri plates.

pH (at 25^{0}C) : 5.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aspergillus brasiliensis	16404	10-100	Good-luxuriant	>=50%	25-30°C	Upto 1 week
Mucor racemosus	22365	10-100	Good-luxuriant	>=50%	25-30°C	Upto 1 week
Pencillium notatum	10108	10-100	Good-luxuriant	>=50%	25-30°C	Upto 1 week
Saccharomyces rouxii	28253	10-100	Good-luxuriant	>=50%	25-30°C	Upto 1 week

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 10-25°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. Rose A. H. and Harrison J. S., (Eds.), 1970, The Yeasts, Vol. 3, Academic Press, New York.
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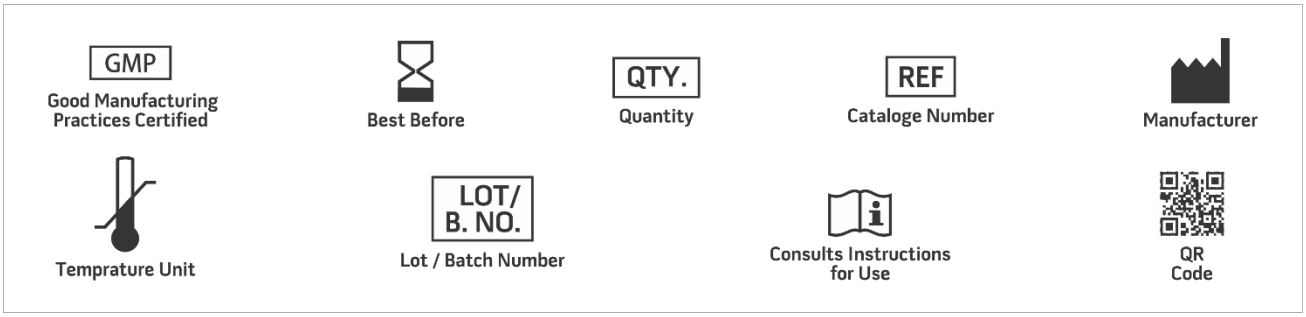
3. Walker H.W., and Ayers J.C., 1970, Jn. A.H. Rose and J.S. Harrison (Eds.), `The Yeasts', Vol. 3, Academic Press, Inc., New York.
4. Anand J.C. and Brown A.D., 1968, J. Gen. Microbiol., 52:205.
5. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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