TM 490 – WORT AGAR

INTENDED USE
For cultivation and enumeration of yeasts.

PRODUCT SUMMARY AND EXPLANATION
Wort Agar is used for the cultivation, isolation and enumeration of yeast and moulds. According to Rapp, addition of certain dyes to Wort Agar allows differentiation between yeast and bacterial colonies. It is particularly well adapted for counting osmophillic yeast in butter, sugar and syrups, in lemonades and more generally in sweet or soft drinks.
Wort Agar is a medium equivalent to the medium described by Parfitt and equally suitable for the cultivation and enumeration of yeasts. Parfitt investigated the relative merits of Wort Agar and other media for the count of yeasts and moulds in butter, and recommended the use of dehydrated whey, malt or wort for the purpose. Scarr employed a modified Wort Agar (Osmophilic Agar) for the examination of sugar products for presence of osmophilic yeasts. For more selective utilization, it is possible to adjust the pH to 4.5 or 3.5 by adding 10 ml/l of a 10% solution of lactic acid or tartaric acid before sterilization.

COMPOSITION

Ingredients	Gms / Ltr
Malt extract	15.000
Peptone	0.780
Maltose	12.750
Dextrin	2.750
Dipotassium hydrogen phosphate	1.000
Ammonium chloride	1.000
Agar	15.000

PRINCIPLE
The medium consists of peptone and malt extract which provide nitrogenous and other nutrients for the growth of yeasts. Dextrin and maltose are the fermentable carbohydrates. The agar medium should not be re-liquefied as it causes alteration with hydrolysis of agar at low pH and results in failure of agar to gel when cooled. Yeasts grow well in culture media containing dextrose or maltose in an acidic environment.

INSTRUCTION FOR USE
- Dissolve 48.28 grams in 1000 ml purified/distilled water containing 2.35 grams of glycerol.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour in sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to brownish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured Opalescent gel forms with flocculant precipitate in Petri plates.
pH (at 25°C)	: 4.8 ± 0.2

INTERPRETATION

Cultural characteristics observed with added glycerol after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aspergillus niger	16404	10-100	Luxuriant	>=70%	25-30°C	40-48 Hours
Candida albicans	10231	10-100	Luxuriant	>=70%	25-30°C	40-48 Hours
Saccharomyces cerevisiae	9763	10-100	Luxuriant	>=70%	25-30°C	40-48 Hours
Saccharomyces uvarum	28098	10-100	Luxuriant	>=70%	25-30°C	40-48 Hours

PACKAGING:

In pack size of 100 gm and 500 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.

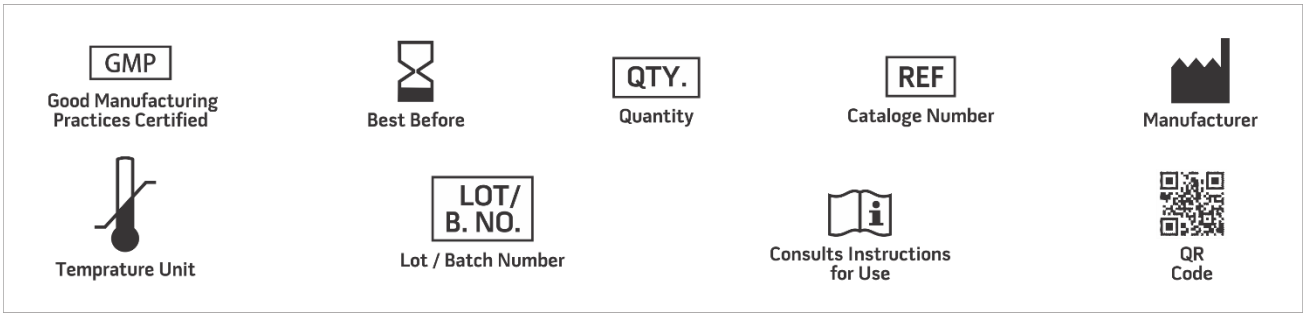
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Parfitt E. H., 1933, J. Dairy Sci., 19: 141.
2. Scarr M., 1959, J. Sci. Food. Agric., 10 (12), 678-681.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation- Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.
4. Rapp M., 1974, Indikatorzusatze zur Keimdifferenzierung auf Wurze-und Malzextrakt-Agar, Milchwis, 29; 341-344.



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

***For Lab Use Only**

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