User Manual

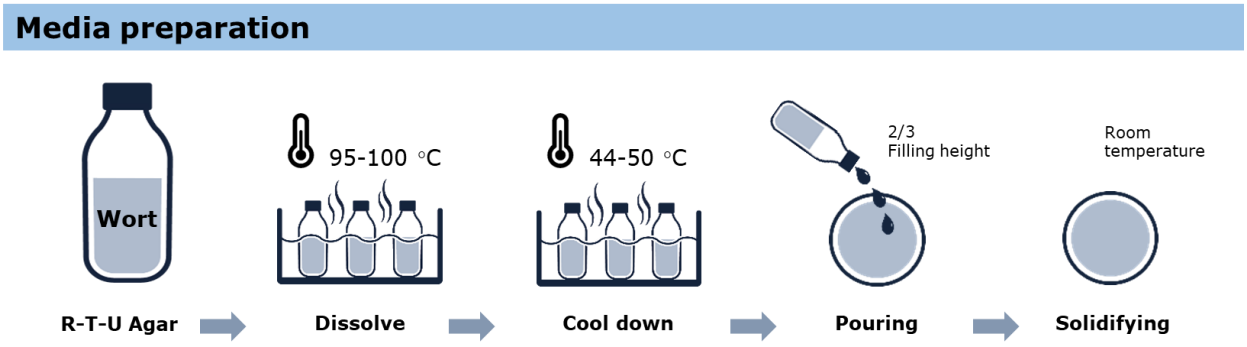
Wort Agar

Item No. 8.40360.782

Wort Agar is a sterile, ready-to-use agar (pH 4.8 ± 0.2) for the quantitative detection and cultivation of yeasts and moulds e.g. *Saccharomyces pastorianus*, *Saccharomyces cerevisiae*, *Aspergillus brasiliensis* or *Penicillium roquefortii* commonly found in beverage, fruit juice, wine and brewing industries. Presence of original hopped beer wort provides an optimal sugar spectrum for the rapid growth of target germs while the low pH inhibits non-relevant accompanying bacterial flora. Wort agar is primarily used for testing filtered beer (filter efficiency test), for cultivating yeast strains and their propagation, and for hygiene monitoring.

1. Media Preparation

- Loosen the screw cap and place the bottle in a water bath at 95 - 100 °C
- Remove the bottle as soon as the medium has dissolved and tighten the screw cap
- Place the bottle at room temperature for 2 min before cooling it in a water bath at 47 - 50 °C (Pour plate method: 44 – 47 °C)
- Pour the liquid agar into petri dishes (Ø 9 cm) with a filling height of approx. 2/3 under sterile conditions. Solidified agar plates can be stored at 4 – 8 °C.
- Refer to 2.2 for pour plate procedure



Note: Liquefied agar held for longer than 4 h in a water bath at 44 – 50 °C could damage the structural property of agar and change its solidifying properties. Repeated heating of the agar could curtail its functionality.

2. Application

Please work under sterile conditions to avoid secondary contamination of the samples.

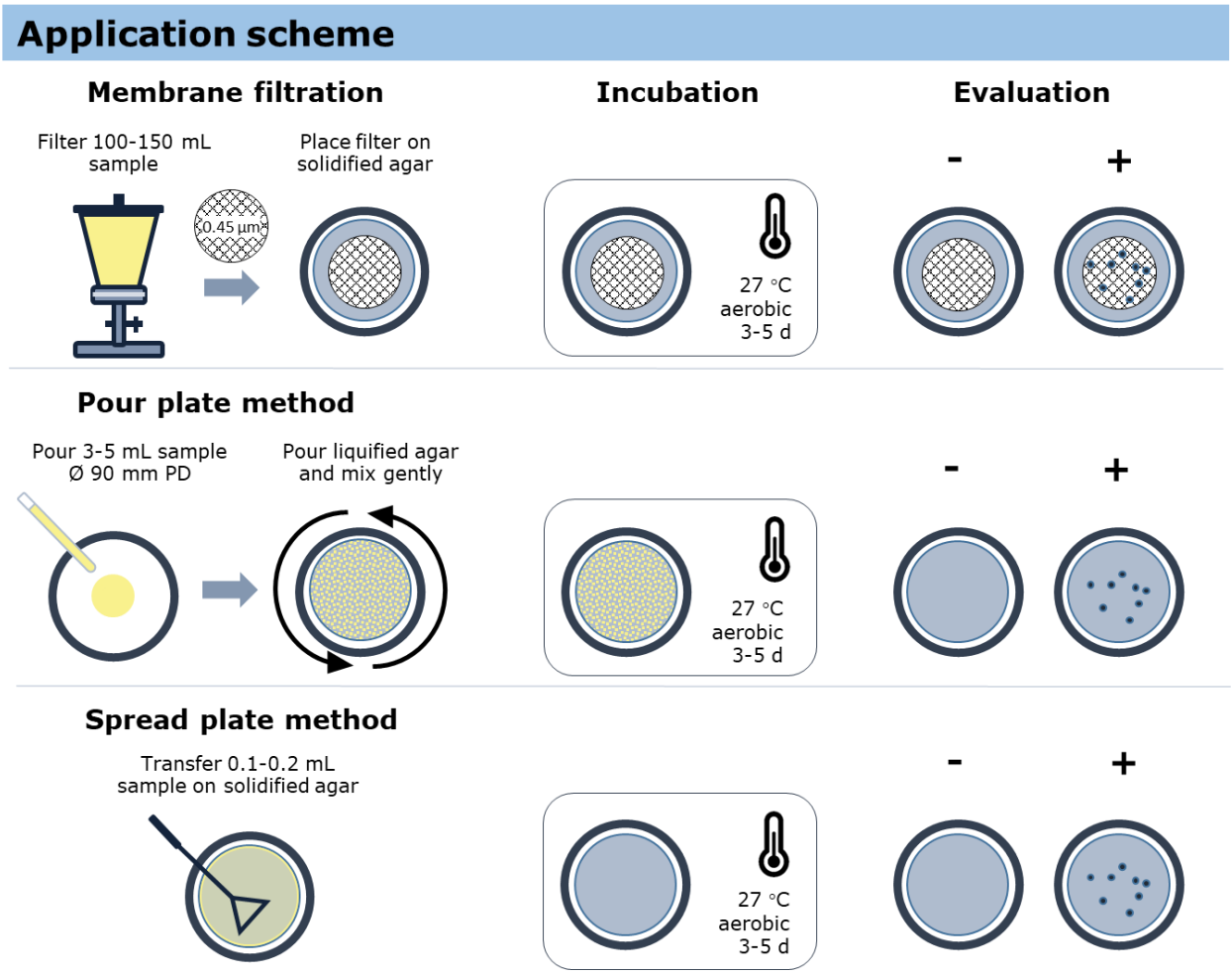
2.1 Nutrient base method

The solidified agar can be used as nutrient base for membrane filters, air samplers, streak and spread plate methods. For filterable samples like water or clear fruit juice samples filter about 100 - 150 ml

sample through a 0.45 µm, non-cellulose membrane filter. Transfer the membrane filter to the surface of the agar plate while avoiding bubbles. For spread plate method, spread 0.1 - 0.2 mL of the sample on the surface of the agar medium.

2.2 Pour plate method

Add 3 - 5 ml of test sample in a ø 90 mm petri dish and fill up to 2/3 with liquid agar. Swirl the mixture gently by moving the closed petri dish in rotations but be cautious not to wet the cover lid or end of the plate´s rim. Allow the medium to solidify at room temperature before incubating.



2.3 Incubation

Incubate samples in an incubator under aerobic conditions for 3 - 5 days at 25 – 29 °C.

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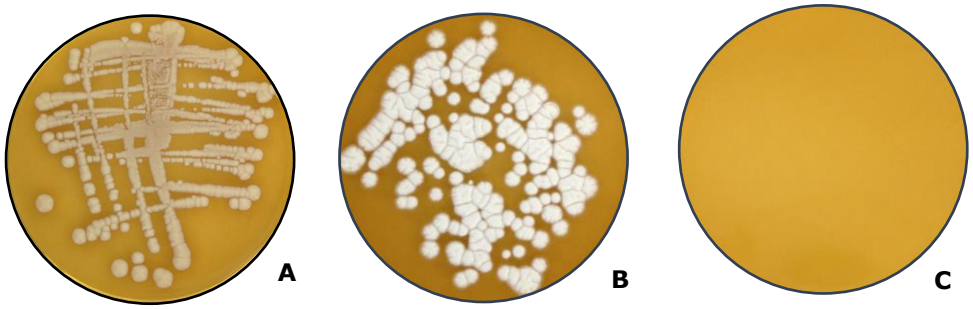
3. Evaluation and Result Interpretation

Count the colonies on the nutrient media after incubation (Colony Forming Units (CFU)). Yeasts usually have a colony diameter of 1 - 2 mm forming smooth white colonies. Moulds are relatively larger and form a characteristic velvet-fluffy colonies that appear white in early stage and change color after formation of conidiospores. Microscopic evaluation is recommended when results are not clearly visible.



A) *Saccharomyces cerevisiae* **B)** *Penicillium* spp. **C)** Negative control

4. Product Information

4.1 Packaging and content

Package/content :	Cardboard box with 9 x 250 ml in glass bottles
Size :	22 cm x 22 cm x 18 cm
Weight :	4.0 kg

4.2 Storage and shelf life

Store in a dry and dark place at 4 – 8 °C. Shelf life of 720 days (from production date).

4.3 Waste disposal

- No dangerous goods and hazardous material
- Please consider your local waste regulations
- Non inoculated media can be disposed of with normal laboratory waste
- Inoculated and incubated media should be sterilized for 20 min at 121°C before disposal

4.4 Warnings and precautions

Do not overheat or freeze product. Wear protective clothing when handling hot media. This product is for use in microbiological control only and not intended for medical use. More information in SDS.

5. Quality Control

Wort agar was tested for functionality in accordance with ISO 11133 with the following microorganisms.

Microorganism	Growth
Saccharomyces cerevisiae (DSM 1333)	PR ≥ 0.7
Penicillium roqueforti (DSM 1079)	PR ≥ 0.7

PR: Productivity ratio

6. Similar Products

Produkt	Artikel Nr.	Zielkeime
DSDM®	9.71231.244	Diastatic *Saccharomyces cerevisiae*
LCSM	9.23552.244	Non-*Saccharomyces* wild yeasts
LWYM	9.04675.244	*Saccharomyces* wild yeasts
OFS	2.04707.782	Bacteria, yeasts, moulds
SSL	2.04712.782	Bacteria, yeasts, moulds
TransFast® Broth	2.04727.782	Bacteria, yeasts, moulds
TransFast® Gel	2.04731.782	Bacteria, yeasts, moulds