



## Technical Data Sheet

TDS-AS-1382  
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### Product Identification

Product Name	Yeast Mold Agar (YM Agar, YMA)
Catalog No.	AS-1382
Lot No.	YMA260301
Mfg. Date	March 2026
Retest Date	March 2028
Formulation	Based on Wickerham's YM Agar formulation
Grade	Microbiological Grade — General Purpose Fungal Culture Medium

### Physical & Chemical Properties

Appearance (powder)	Homogeneous, free-flowing powder; pale cream to light beige
Appearance (prepared)	Clear to slightly opalescent amber gel
Odour	Faint, characteristic (malt/yeast)
pH (prepared, 25 °C)	6.2 ± 0.2
Agar gel / melt point	Gels ≈ 32–34 °C / Melts ≈ 84–86 °C
Loss on Drying (spec.)	≤ 7.0% w/w (105 °C / 2 h)
Solubility	41.0 g/L in purified water on heating; complete dissolution on boiling

### Composition per Litre

Component	Function	Amount (g/L)
Peptone	Nitrogen, amino acids — primary nutrient source	5.0
Yeast Extract	B vitamins, growth factors, trace elements	3.0
Malt Extract	Carbon source (maltose, dextrans) — enhances yeast & mould growth	3.0



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Component	Function	Amount (g/L)
Dextrose (Glucose)	Primary fermentable carbohydrate	10.0
Agar	Solidifying agent	20.0
TOTAL		41.0

### Preparation Protocol

Step 1 — Suspension	Suspend 41.0 g of dehydrated YM Agar in 1 L of purified/distilled water.
Step 2 — Dissolution	Heat with frequent agitation until completely dissolved. Bring to a rolling boil for 1 minute.
Step 3 — Sterilisation	Autoclave at 121 °C (15 psi) for 15 minutes. Do not over-autoclave.
Step 4 — Cooling	Cool to 45–50 °C in a water bath.
Step 5 — Supplements	Optional: Add chloramphenicol (0.05 g/L) or oxytetracycline (0.1 g/L) aseptically, OR adjust pH to 3.5 with sterile 10% tartaric acid solution, for selective inhibition of bacteria.
Step 6 — Pouring	Pour 15–20 mL per 90 mm Petri dish under laminar flow. Allow to solidify on a level surface.
Step 7 — Drying	Dry at 37 °C for 20–30 min or air-dry at RT before use. Store at 2–8 °C.

### Selective Enhancement Options

Selective Agent	Concentration	Purpose	Addition Method
Tartaric acid (10% sterile solution)	To achieve pH 3.5	Broad bacterial inhibition — most common selective approach	Add after cooling to 50 °C; test pH before pouring
Citric acid (10% sterile solution)	To achieve pH 3.5	Alternative acid; similar bacterial inhibition profile	Add after cooling to 50 °C
Chloramphenicol	0.05 g/L (50 mg/L)	Suppresses most bacteria without affecting fungi	Dissolve in ethanol; add aseptically at 45–50 °C



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Selective Agent	Concentration	Purpose	Addition Method
Oxytetracycline	0.1 g/L (100 mg/L)	Alternative broad-spectrum antibacterial agent for fungi isolation	Dissolve in sterile water; add aseptically at 45–50 °C

### Incubation & Counting

Moulds / Environmental	22–25 °C · 3–5 days (up to 7 days for slow growers)
Food Yeasts / Candida	30–37 °C · 2–5 days
Examination interval	Examine every 24–48 h from day 3; record final count at day 5 (or day 7 for moulds)
Humidity	Maintain adequate humidity to prevent agar desiccation — seal plates or use moist incubation chamber
Counting	Count all colonies; report as CFU/g or CFU/mL. Record colony morphology and colour.

### Quality Control Specifications

Parameter	Specification	Method
Appearance (powder)	Homogeneous; cream to beige; no lumps	Visual inspection
pH (prepared, 25 °C)	6.0 – 6.4	Potentiometry (ISO 10523)
Loss on Drying	≤ 7.0% w/w	105 °C / 2 h (gravimetric)
Growth — <i>Saccharomyces cerevisiae</i> ATCC 9763	Good growth; typical yeast colony morphology	Growth promotion test
Growth — <i>Aspergillus brasiliensis</i> ATCC 16404	Good growth; sporulation within 5 days	ISO 21527 / Ph. Eur. growth test
Growth — <i>Candida albicans</i> ATCC 10231	Good growth; white creamy colonies	Growth promotion test
Inhibition (if acidified to pH 3.5)	Complete / ≥ 99% inhibition of <i>E. coli</i> ATCC 25922	Selectivity test



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Parameter	Specification	Method
Sterility (prepared medium)	No growth at 14 days (30–35 °C)	Incubation sterility check

### Technical References

Primary Reference	Wickerham L.J. (1951). Taxonomy of Yeasts. USDA Technical Bulletin No. 1029.
ISO Standard	ISO 21527-1:2008 — Food microbiology: Enumeration of yeasts and moulds (Part 1 & 2)
Pharmacopoeial	Ph. Eur. 2.6.12 — Microbiological examination; Aspergillus brasiliensis ATCC 16404 QC strain
FDA-BAM	FDA Bacteriological Analytical Manual — Yeasts, Moulds and Mycotoxins (Chapter 18)
CTFA / ISO 16212	Cosmetic microbiology — fungi enumeration in cosmetic products

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