

Tryptic Soy Agar (TSA / CASO Agar)

Catalogue No. AS-1370 · Batch TSA240021 · 40 g/L · pH 7.3 ± 0.2 · EXP Sep. 2028

Section 1 — Product Identification

Product Name	Tryptic Soy Agar (TSA / CASO Agar)
Catalogue Number	AS-1370
Batch Number	TSA240021
Synonyms	CASO Agar; Casein Soya Bean Digest Agar; Tryptone Soya Agar; Soybean-Casein Digest Agar (SCDA)
Medium Type	General-purpose non-selective solid culture medium
Dissolution	40.0 g/L in distilled or deionised water
Final pH at 25°C	7.3 ± 0.2
Sterilisation	Autoclave 121°C for 15 minutes — DO NOT OVERHEAT
Appearance (powder)	Light beige to cream, free-flowing homogeneous powder
Appearance (prepared agar)	Clear to slightly opalescent amber; firm uniform gel
Pack Size	500 g (makes 12.5 L prepared medium)
Expiry Date	September 2028
Storage (powder)	15–25°C, dry, tightly sealed
Storage (prepared plates)	2–8°C, inverted, protected from light and desiccation
HS Tariff Code	3821.00.00

Section 2 — Formula (Per Litre) — From Label

Ingredient	g / L	Function
Pancreatic Digest of Casein (Tryptone)	15.0	Primary nitrogen source — amino acids, peptides, tryptophan
Papaic Digest of Soybean Meal (Soytone)	5.0	Carbohydrates, B-vitamins, accessory growth factors
Sodium Chloride (NaCl)	5.0	Osmotic balance — physiological ionic strength
Agar	15.0	Solidifying agent — firm clear surface for colony isolation

Total · Dissolution
Final pH at 25°C

40.0 g/L → 500 g makes 12.5 L of prepared medium
7.3 ± 0.2

Section 3 — Preparation Protocol

- Suspend 40.0 g of dehydrated TSA (AS-1370) in 1 litre of purified or distilled water.
- Heat with frequent agitation until completely dissolved and agar is fully dispersed.

3. Sterilise by autoclaving at 121°C for 15 minutes. **⚠ DO NOT OVERHEAT** — excessive autoclaving darkens the medium and reduces gel quality.
4. Cool to 45–50°C. Pour approximately 20 mL per 90 mm Petri dish on a level surface.
5. Allow to solidify. Store prepared plates inverted at 2–8°C, protected from light.

Section 4 — Quality Control Specifications

Parameter	Specification	Method	Acceptance
Appearance (powder)	Light beige to cream; free-flowing; homogeneous	Visual inspection	Conforms
Appearance (prepared)	Clear to slightly opalescent amber; firm uniform gel	Visual	Conforms
pH (prepared, 25°C)	7.3 ± 0.2	pH meter (calibrated)	Conforms
Dissolution	Complete at 40 g/L with heating	Visual inspection	Conforms
Moisture Content	≤5.0% (w/w)	Loss on drying	Conforms
Growth — <i>S. aureus</i> (ATCC 25923)	Good growth ≤100 CFU / 35°C / 18–24h	ISO 11133:2014	Pass
Growth — <i>E. coli</i> (ATCC 25922)	Good growth ≤100 CFU / 35°C / 18–24h	ISO 11133:2014	Pass
Growth — <i>P. aeruginosa</i> (ATCC 27853)	Good growth ≤100 CFU / 35°C / 18–24h	ISO 11133:2014	Pass
Growth — <i>C. albicans</i> (ATCC 10231)	Good growth ≤100 CFU / 25°C / 48–72h	ISO 11133:2014	Pass

Section 5 — Regulatory Standards

USP <61>	Microbiological examination of non-sterile products — microbial enumeration tests
USP <71>	Sterility tests — SCDA (Soybean-Casein Digest Agar) = TSA
EP 2.6.12	Microbiological examination of non-sterile products
EP 2.6.1	Sterility — Casein Soya Bean Digest Agar = TSA
JP	Sterility testing and microbial limit tests
ISO 11133:2014	Performance testing of culture media
ISO 14698-1	Cleanroom biocontamination control — environmental monitoring

Section 6 — Literature & References

#	Reference
1	USP. <61> Microbiological Examination of Nonsterile Products: Microbial Enumeration Tests. <71> Sterility Tests. Current edition.
2	EP 2.6.12 Microbiological Examination; EP 2.6.1 Sterility. EDQM; current edition.
3	BD Difco & BBL Manual, 2nd ed. Becton Dickinson; 2009. Tryptic Soy Agar, Cat. 236950.
4	ISO 11133:2014. Performance testing of culture media. Geneva: ISO; 2014.
5	Murray PR, et al. Manual of Clinical Microbiology, 12th ed. ASM Press; 2019.

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