

TM 635- BAIRD PARKER AGAR BASE (IS: 5887 (Part II) 1976, reaffirmed 2005)

INTENDED USE

For isolation and enumeration of coagulase positive Staphylococci from food and other products.

PRODUCT SUMMARY AND EXPLANATION

Baird parker agar Base is recommended for the isolation and enumeration of *Staphylococci* in food and other material. It was developed by Baird Parker from the Tellurite-glycine formulation of Zebovitz et al. BIS has recommended this medium with an increased amount of sodium pyruvate, for isolation of *Staphylococcus aureus*.

COMPOSITION

| Ingredients | Gms / Ltr |
|------------------------------|-----------|
| Agar | 20.000 |
| Glycine | 12.000 |
| Sodium pyruvate | 12.000 |
| Casein enzymatic hydrolysate | 10.000 |
| Meet extract | 5.000 |
| Lithium chloride | 5.000 |
| Yeast extract | 1.000 |

PRINCIPLE

Casein enzymatic hydrolysate, Beef extract are the source of carbon and nitrogen. Yeast extract provides vitamins (B-complex) which helps in stimulating bacterial growth. The selectivity of the medium is maintained by the addition of Lithium chloride and Potassium Tellurite solution. Both are helpful in suppressing the growth of other organism except Staphylococci sp. Glycine and Sodium pyruvate stimulate the growth of Staphylococci. Staphylococci that contain lecithinase break down the egg yolk and form clear zones around the colonies. Black colonies are formed due to reduction of the Potassium tellurite to tellurium.

INSTRUCTION FOR USE

- 1. Dissolve 65.00 grams in 950ml distilled water.
- 2. Gently heat to boiling with swirling to dissolve the medium completely.
- 3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- **4.** Cool to 50°C and aseptically add 50 ml concentrated Egg Yolk Emulsion (TS 002) and 3 ml sterile 3.5% Potassium Tellurite solution (TS 003) or 50 ml Egg Yolk Tellurite Emulsion (TS 001).
- 5. Mix well and pour into sterile Petri plates.

Note: Lithium chloride is harmful. Avoid bodily contact and inhalation of vapours. On contact with skin wash with plenty of water immediately.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder
Appearance of Prepared medium

Cream to yellow, homogeneous free flowing powder

Basal medium

: Yellow colored, clear to slightly opalescent gel













After addition of Egg Yolk emulsion and Tellurite

emulsion

Yellow coloured, opaque gel

pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed with added Egg Yolk emulsion (TS 002) & Potassium tellurite (TS 003), after an incubation. Recovery rate is considered 100% for bacteria growth on Soya Agar.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Colour of colony | Lecithinase activity | Incubation Temp. | Incubation Period |
|----------------------------|-------|----------------------|--------------------|----------|------------------------|--|---------------------|----------------------|
| Staphylococcus aureus | 25923 | 50-100 | Luxuriant | >=50% | Grey-black colonies | Positive, opaque zone around the colony | 35-37°C | 24-48 Hours |
| Staphylococcus aureus | 6538 | 50-100 | Luxuriant | >=50% | Grey-black colonies | Positive, opaque zone around the colony | 35-37°C | 24-48 Hours |
| Proteus mirabilis | 25933 | 50-100 | Good- Luxuriant | >=50% | Brown-Black | Negative | 35-37°C | 24-48 Hours |
| Micrococcus Iuteus | 10240 | 50-100 | Poor- Good | 30-40% | Shades of brown-black | Negative | 35-37°C | 24-48 Hours |
| Staphylococcus epidermidis | 10240 | 50-100 | Poor- Good | 30-40% | Black | Negative | 35-37°C | 24-48 Hours |
| Escherichia coli | 25922 | 50-100 | None- Poor | 0-10% | Large brown black | Negative | 35-37°C | 24-48 Hours |
| Escherichia coli | 8739 | 50-100 | None- Poor | 0-10% | Large brown black | Negative | 35-37°C | 24-48 Hours |

PACKAGING

In 100 & 500 gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 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 powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

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

REFERENCES

- 1. Baird-Parker. I App. Bact. 25:12. (1962).
- 2. Zebovitz E., Evans J.B. and Niven C.F., 1955, J. Bact., 70:686
- 3. Baird-Parker. J. Ann. Micromiol. 30:409. (1963).
- 4. Baird-Parker and Devenport J. App. Bact. 28:390. (1965).
- 5. J. AOAC. 54:728. (1971).
- 6. International Organization for Standardization (ISO), 1983, Draft ISO/DIS 6888
- 7. Bureau of Indian Standards IS : 5887 (Part II) 1976, (Second Reprint December 1994.







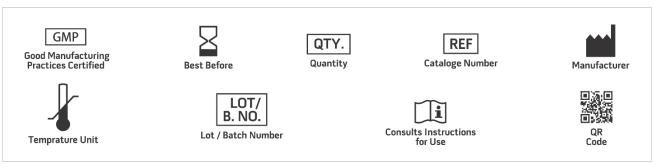






PRODUCT DATA SHEET

European Pharmacopoeia 6th Ed. (2007).



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

*For Lab Use Only Revision: 05th Oct. 2019







