

TELLURITE EGG YOLK EMULSION SUPPLEMENT

EYTS-00P-100

- **Principle**

Tellurite Egg Yolk Emulsion is a selective and differential supplement intended for the preparation of culture media used for the detection and enumeration of coagulase-positive staphylococci, particularly *Staphylococcus aureus*. The formulation combines egg yolk with potassium tellurite, providing both selective and differential properties to the complete medium.

Potassium tellurite acts as a selective agent, inhibiting part of the accompanying microbiota while allowing the growth of staphylococci capable of reducing tellurite. This reduction contributes to the development of the characteristic dark or black-grey colony colour.

Egg yolk provides substrates that allow the detection of enzymatic activity, especially lecithinase. Presumptive *Staphylococcus aureus* colonies typically appear as black or grey colonies surrounded by a clear halo, which facilitates their recognition on the agar surface. Final identification should always be confirmed by appropriate microbiological and biochemical tests.

- **Regulatory compliance**

This product is manufactured under a quality management system in accordance with ISO 9001 and ISO 13485, and its formulation and quality control comply with applicable international standards, such as ISO 11133, where relevant.

For this specific supplement, compliance is also established with the relevant requirements of ISO 6888-1.

- **Composition**

Ingredients	g/l
Egg Yolk	200 ml
Potassium tellurite	2,10
Sodium chloride	4,25
Sterile water	800 ml

- **Preparation**

Aseptically add 5 ml of Tellurite Egg Yolk Emulsion to 100 ml of sterilized Baird-Parker Agar Base (ABBP-0EP), previously cooled to approximately 50 °C. Mix gently until the supplement is homogeneously distributed and pour the complete medium into sterile Petri dishes. Allow the plates to cool and solidify at room temperature before use.

Once solidified on a flat surface, inoculate the plates using an appropriate streaking or spiral plating method. Incubate the plates in an inverted position under aerobic conditions at 35–37 °C for 24–48 hours. Depending on the sample type or the applicable analytical method, different incubation conditions may be required.

After incubation, examine and enumerate the characteristic colonies present on the agar surface. Presumptive colonies should be selected according to their morphology, particularly black or grey colonies surrounded by a clear halo and confirmed by further microbiological and biochemical tests.

- **Application and use**

Tellurite Egg Yolk Emulsion is intended for use in the preparation of Baird-Parker medium for the detection and enumeration of coagulase-positive staphylococci, especially *Staphylococcus aureus*. The complete medium allows selective growth while facilitating the identification of presumptive colonies based on their characteristic morphology and lecithinase reaction.

- **Quality control**

Colour	Yellow
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- **Microbiological control**

For performance testing, inoculate the medium using approximately 100 ± 20 CFU, with a minimum of 50 CFU for productivity testing, and 10^4 – 10^6 CFU for selectivity testing.

Perform the analytical procedure in accordance with ISO 11133:2014/A1:2018; A2:2020.

Incubate under aerobic conditions at 35 ± 2 °C and evaluate the results after 24 – 48 ± 2 h.

Microorganism	ATCC	WDCM	Growth	Colonies	Lecithinase reaction
<i>Staphylococcus aureus</i>	6538	00032	Good	Black/grey with halo	Positive
<i>Stph. aureus</i>	25923	00034	Good	Black/grey with halo	Positive
<i>Escherichia coli</i>	8739	00012	Inhibited	-	-
<i>Stph. epidermidis</i>	12228	00036	-	Black/grey without halo	Negative
<i>Staphylococcus saprophyticus</i>	15305	-	-	Black/grey without halo	Negative

- **Storage and shelf life**

Shelf life: 18 months. The declared expiry is valid only when stored as per the conditions mentioned on the label. Temp. Min.:2 °C Temp. Max.:14 °C.

- **Sterility control**

Sterility is verified by inoculating 10 ml of the product into 100 ml of THIO USP/TSB. The inoculated media are incubated for 7 days at 30 – 35 °C and verified in TSA. No microbial growth shall be observed after the specified incubation periods.

- **Bibliography**

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USP 31 - NF 26 (2008) <61> Microbial Limit Tests. US Pharmacopoeial Conv. Inc. Rockville. MD. USA.

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- **Product use limitation**

This product is developed, designed and supplied exclusively for research use only. It is not intended for diagnostic applications or drug development, and it is not suitable for administration to humans or animals.