

Specification

Selective medium for the isolation of pathogenic staphylococci according to the Pharmacopoeial Harmonized Methodology and the ISO Standards.

Presentation

	Packaging Details	Shelf Life	Storage
30 Contact Plates Contact Plates - Double Wrapping with: 15 ± 2 ml	1 box with 5 blisters (base of aluminium, PVDC and bag) with 6 contact plates/blister. Every pack exhibitis an irradiation indicator (8-14kGy).	7 months	2-25°C

Composition

Composition (g/l):

Beef extract.....	1.000
Pancreatic digest of casein.....	5.000
Peptic digest of meat.....	5.000
Sodium chloride.....	75.000
D-Mannitol.....	10.000
Phenol red.....	0.025
Agar.....	15.000

Description /Technique

Description

Mannitol Salt Agar is a classical medium for the detection and enumeration of staphylococci. It was described by Chapman and has been adopted by many official organisations. Several modifications of it have been developed, all formulations resulting in media with similar efficiency.

This medium takes advantage of the high saline tolerance of staphylococci, and uses sodium chloride as a selective agent. Only staphylococci and halophilic enterobacteria are able to grow freely at the concentration of salt employed in this medium, while other bacteria are inhibited. It also exploits the correlation between the pathogenicity of staphylococci and their ability ferment mannitol. Mannitol fermentation results in an accumulation of acid products, indicated by the phenol red indicator turning yellow. A yellow halo surrounds the presumptive pathogenic colonies, while the rest of the medium remains red/orange in colour.

Technique

Contact plates are used in the microbiological control of disinfection and cleaning of surfaces. It acts simultaneously as a sampler and incubation culture medium without the need for any other intermediate steps.

The plates come in a form appropriate for this function and can be used with different culture media depending on the type of microbe that needs to be controlled. On average the plates provide a contact surface of approximately 25 cm².

To use, remove the cover and gently press the culture medium on the surface to be controlled, ensuring contact between the two surfaces. The Contact plate is removed and covered with the lid to prevent air contamination. It is advisable that the lid is secured with adhesive tape and the bottom labelled with the sampling data (place, date and time).

If the sample surfaces are rough, the contact plates will not make good contact, even when the pressure is increased. In these cases it is advisable to delineate an sample surface area of 25 cm squared and rub this area vigorously with a wet sterile swab and then rub the swab over the Contact plate.

If verifying the effectiveness of a cleaning or disinfection process, contact plates should be used within two hours after the end of the process, ensuring that the sample surface is dry. It is advisable to always include positive controls, sampling the area before disinfection or dirty areas beside the disinfected area.

The technician will determine the frequency of sampling and disinfection according to performance criteria. Apply the agar directly onto surface to be monitored ensuring that the pressure is distributed over the whole plate for 10 seconds. Clean the surface where the sample was collected in order to remove any traces of agar.

The inoculated plates are incubated at 37±1 ° C for 24-48±2 hours and examined daily.

Note: Contact plates are used for monitoring the microbiological contamination of surface and air inside cleanrooms, isolators, RABS, food industries and hospitals. The double/triple irradiated wrapping ensures that the package itself doesn't contaminate the environment as the first wrapper is removed just before entering the clean area.

Quality control**Physical/Chemical control**

Color : Strongly pink

pH: 7.4 ± 0.2 at 25°C

Microbiological controlInoculate: Practical range 100 ± 20 CFU; Min. 50 CFU (Productivity)/ 10⁴-10⁶ (Selectivity).

Aerobiosis. Incubation at 30-35°C. Reading at 18-72h

Microorganism*Stph. epidermidis* ATCC® 12228, WDCM 00036*Escherichia coli* ATCC® 8739, WDCM 00012*Staphylococcus aureus* ATCC® 6538, WDCM 00032*Stph. aureus* ATCC® 25923, WDCM 00034**Growth**

Good

Inhibited

Good. White colonies. Yellow medium.

Good. White colonies. Yellow medium.

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

Bibliography

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