

HiTouch™ Flexi Plate - R2A

FL037

For enumeration (count) of treated potable water using longer incubation periods.

Composition**

Ingredients	Gms / Litre
Casein acid hydrolystae	0.500
Yeast extract	0.500
Proteose petone	0.500
Dextrose	0.500
Starch soluble	0.500
Dipotassium phosphate	0.300
Magnesium sulphate	0.024
Sodium pyruvate	0.300
Agar	15.000

**Formula adjusted, standardized to suit performance parameters

Directions

Open the pouch in the protected area . Remove the wrapping and open the lid and carefully lift up the enclosed prepared medium plate so as to avoid touching the agar surface by hand.Touch the surface of agar plate onto the surface to be tested. Gently press the plate manually for upto 10 sencond. Apply constant and uniform pressure to the whole surface (ensuring that an even pressure of 25 gm/cm² is distributed over the whole plate for 10 seconds). Replace exposed medium plate back in the base plate. Close the lid. Press the sides of the lid to make sure that it is fixed in the grooves. Disinfect the surface where the sample was taken in order to remove any possible traces of agar. Incubate the plates at specified temperature. After incubation as recommended count the number of colonies which have appeared on the surface of medium. Alternative Methods of Inoculation : To use as Culture Plate (ii), Sample Dilution Plate (iii) or Swabbing Plate (iv) To use as Gravitation Settling Plate (v)

Principle And Interpretation

Hitouch Flexi plates are ready to use sterile media supplied in flexible disposable plates, 55 mm in diameter. It is grid scored on the base and is irradiated to ensure perfect sterility. Medium is filled aseptically and each plate is packed in pre-sterilized plastic bag. HiTouch Flexi plate is then packed in plastic pouch wrapping. The unique flexible plate configuration ensures close contact even with uneven surfaces. These plates are specially developed for microbial testing, where count can be obtained. The Flexi plate medium formula is suitable for enumeration of treated potable water using longer incubation periods and the grids enable direct reading on the plates of the number of colonies per cm². The heterotrophic plate count (HPC), formerly known as the standard plate count is a procedure for estimating the number of live heterotrophic bacteria in water and measuring changes during water treatment, in distribution systems or in swimming pools. R-2A Agar is recommended by APHA (1, 2) for estimating the heterotrophic plate count by the pour plate, spread plate or membrane filter procedure. R-2A Agar is formulated as per Reasoner and Geldreich (3). Stressed or injured organisms during water treatment are unable to grow on high nutrient media, since the faster growing organisms outgrow the former (4). Therefore the use of a low nutrient medium like R-2A Agar incubated for longer incubation periods allows these stressed organisms to grow well. Many bacteria from natural waters which contain limited nutrients at ambient temperature, grow best on the media with less nutrient levels. They grow better at the temperatures below the routine laboratory incubation temperatures of 35 to 37°C (4). Casein acid hydrolysate, proteose peptone and yeast extract provide nitrogen, vitamins, amino acids, carbon and minerals. Dextrose serves as an energy source. Soluble starch aids in the recovery of injured organisms by absorbing toxic metabolic byproducts while sodium pyruvate increases the recovery of stressed cells. Magnesium sulphate is a source of divalent cations and sulphate. Dipotassium phosphate is used to balance the pH of the medium. The number of colonies on a plate are reported as CFU (Colony Forming Units) per volume of sample.

Quality Control

Appearance

Sterile plastic plate containing light yellow coloured firm gel

Quantity of Medium

9ml of gel in plastic plate

Reaction

7.00- 7.40

Sterility Check

Passes release criteria

Cultural response

Cultural characteristics observed *by using standard ATCC cultures after an incubation for 24 - 72 hours at 35-37°C.

Organism	Inoculum (CFU)	Growth
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant
<i>Enterococcus faecalis</i> ATCC 29212	50-100	good-luxuriant
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant
<i>Salmonella Enteritidis</i> ATCC13076	50-100	good-luxuriant
<i>Salmonella Typhi</i> ATCC 6539	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 9027	50-100	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 6538	50-100	good-luxuriant
<i>Bacillus subtilis</i> ATCC 6633	50-100	good-luxuriant
<i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant

Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label.

Reference

- Hall L., Hartnett M.J., Pub. (1964) Health Rep., 79,1021.
- Pryor A.K., Mc Duff C.R., Exed Housekeeper. (1969) Mass.
- Lenette E.H., Spauldine E.H., Truant J.P. Manual of Clinical Microbiology, 2nd ed., (1974) American Society for Microbiology.
- Desbordes J., Biodegradation microbienne des antiseptiques et conservateurs. (1977) Rev. Institut Pasteur de Lyon, 10 (n04), 291-311.
- Norme francaise NF T 72-151, Antiseptiques et desinfectants utilises a retat liquide, misibles a reau (03/1981).
- "Guide du blonettoyage". Journal Officiel de la Republique Francaise. Recommandation NOE 1-90 (1991).

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