

## Plate Count Agar + TTC + Neutralizing

Culture medium for environmental and personnel hygiene monitoring with inactivation of disinfectants.

TYPICAL FORMULA	(g/l)
Enzymatic Digest of Casein	5.0
Yeast Extract	2.5
Glucose	1.0
Agar	15.0
Triphenyl-Tetrazolium Chloride (TTC)	0.1
Histidine	1.0
Lecithin	0.7
Polysorbate 80	5.0
Sodium Thiosulfate	0.5
Final pH 7.0 ± 0.2	

### DESCRIPTION

Plate Count Agar + TTC + Neutralizing is a ready culture medium in contact plates used for detection and enumeration of bacteria in food handling areas and other protected environments to evaluate the effectiveness of cleaning and sanitizing programs.

The medium's formulation (without considering the neutralizing components) complies with the specifications given by the American Public Health Association and ISO 4833.

### PRINCIPLE

Enzymatic digest of casein provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. Glucose is the fermentable carbohydrate. Agar is the solidifying agent. Triphenyl-tetrazolium chloride (TTC) is reduced to the insoluble formazan inside the bacterial cell producing red-colored colonies. Histidine inactivates aldehydes. Lecithin neutralizes quaternary ammonium compounds. Polysorbate 80 (Tween 80) is effective against phenolic compounds and mercurial derivatives. Sodium thiosulfate neutralizes halogen compounds.

### TECHNIQUE

For active air monitoring, insert the plate without the lid in an air sampler and draw a volume of air from 100 to 1000 liters.

For surfaces and personnel hygiene monitoring, such as for sampling of clothing and face masks, firmly press the the agar medium against the test area for about 10 sec

Incubate the plates aerobically at 30°C for 72 hours.

### INTERPRETATION OF RESULTS

Examine plates for the types and number of bacterial colonies. Because interpretations are relative, each laboratory should establish its own criteria for what constitutes an acceptable microbial load.

### STORAGE

10-25°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used by properly trained operators only.

### DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

### REFERENCES

1. EN ISO 11133:2014. Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.
2. ISO 4833 (2003) Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of microorganisms – Colony count technique at 30°C.
3. Davidson, Roth, and Gambrel-Lenarz (2004) In Wehr and Frank (ed.) Standard methods for the microbiological examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
4. Kornacki and Johnson (2001) In Downes and Ito (ed.) Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington D.C.
5. Greenberg A.E., L.S. Clesceri and A.D. Eaton (1992) Standards methods for the examination of water and wastewater, 18th ed. American Public Health Association, Washington D.C.

## PRODUCT SPECIFICATIONS

### NAME

Plate Count Agar + TTC + Neutralizing

### PRESENTATION

Ready-to-use plates (55 mm) containing  $17 \pm 1$  ml of medium

### STORAGE

10-25°C

### PACKAGING

Ref.	Content	Packaging
15360	20 plates	<ul style="list-style-type: none"> <li>• individually packed in transparent blister of 2 pieces</li> <li>• double-wrapped</li> </ul>
15360L	20 plates	<ul style="list-style-type: none"> <li>• packed in 2 piles of 10</li> </ul>

### pH OF THE MEDIUM

$7.0 \pm 0.2$

### USE

Plate Count Agar + TTC + Neutralizing is a non-selective medium in contact plates used for environmental control (air and surfaces) with inactivation of disinfectants

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

Slightly opalescent, light amber

### SHELF LIFE










9 months

### QUALITY CONTROL

1. Control of general characteristics, label and print
2. Sterility control
  - 7 days at  $22.5 \pm 2.5^\circ\text{C}$ , in aerobiosis
  - 7 days at  $32.5 \pm 2.5^\circ\text{C}$ , in aerobiosis
3. Microbiological control
  - Inoculum for productivity: 50-100 CFU
  - Incubation Conditions:  $72 \pm 3$  h at  $30 \pm 1^\circ\text{C}$  in aerobiosis

Microorganism		Growth
<i>Bacillus subtilis</i>	ATCC® 6633	Good
<i>Enterococcus faecalis</i>	ATCC® 19433	Good
<i>Escherichia coli</i>	ATCC® 8739	Good
<i>Staphylococcus aureus</i>	ATCC® 25923	Good
<i>Pseudomonas aeruginosa</i>	ATCC® 10145	Good

### TABLE OF SYMBOLS

 <b>LOT</b>	Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
 <b>REF</b>	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	