



## Easy Dry™ Tergitol + TTC

Selective medium for detection, differentiation and enumeration of *E. coli* and coliform bacteria in water.

### DESCRIPTION

Liofilchem Easy Dry™ are absorbent pads impregnated with a sterile, dehydrated culture medium. Each pad is preplated in a Petri dish and is immediately ready to use after pouring sterile distilled or deionized water on it. Easy Dry™ are optimal for the examination of large sample volumes by the membrane filter method.

Easy Dry™ Tergitol + TTC is a selective and differential medium used for the detection and enumeration of *Escherichia coli* and coliform bacteria in water.

TYPICAL FORMULA	(g/l)
Peptone	10.0
Meat Extract	5.0
Yeast Extract	6.0
Lactose	20.0
Bromothymol Blue	0.05
Tergitol® 7	0.1
TTC	0.025
Final pH 7.1 ± 0.1 at 25°C	

### METHOD PRINCIPLE

Peptone and meat extract provide amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Yeast extract is a source of vitamins, particularly of B-group. Lactose is the fermentable carbohydrate. Bromothymol blue is the pH indicator. Tergitol® 7 (sodium heptadecylsulfate) is a surfactant that inhibits Gram-positive bacteria. TTC (triphenyltetrazolium chloride) is a colorless compound that can be reduced to formazan, a red compound.

### PREPARATION

1. Cut open a bag and remove the number of Easy Dry plates needed.
2. Moisten the pad contained in the Petri dish with 2.2 ml of sterile distilled or deionized water.
3. Wait 5 minutes before using.

### TEST PROCEDURE

Filter two 100 ml aliquots of the water sample through two sterile membranes (0.45 µm pore diameter). Transfer each membrane onto a plate containing a just rehydrated pad. Incubate aerobically one plate at 37°C for 24 h (total coliforms) and the other one at 44°C for 16-24 h (*Escherichia coli*).

### INTERPRETING RESULTS

*Escherichia coli* cultivates with yellow-orange colonies on yellow medium.

*Enterobacter/Klebsiella* cultivate with yellow colonies on yellow medium.

*Salmonella/Shigella/Proteus/Pseudomonas* cultivate with dark red colonies on green-blue medium.

### APPEARANCE OF THE MEDIUM

Whitish pad. Pale green once rehydrated.

### STORAGE

Store at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

### SHELF LIFE

2 years.

**QUALITY CONTROL**

The plates are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: 50-100 CFU.

Inoculum for selectivity:  $10^4$ - $10^6$  CFU.

Inoculum for specificity:  $10^3$ - $10^4$  CFU.

Incubation conditions: aerobically at  $36 \pm 2^\circ\text{C}$  for 18-24 hours.

**QC Table.**

Microorganism		Growth	Colony color	Medium color
<i>Escherichia coli</i>	WDCM 00013	Good	Yellow-orange	Yellow
<i>Enterobacter aerogenes</i>	WDCM 00175	Good	Yellow	Yellow
<i>Enterococcus faecalis</i>	WDCM 00009	Inhibited	---	---
<i>Pseudomonas aeruginosa</i>	WDCM 00024	Good	Red	Blue
<i>Salmonella Typhimurium</i>	ATCC® 14028	Good	Dark red	Green

**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 is intended for professional use only and must be used by properly trained operators.

**DISPOSAL OF WASTE**

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









**BIBLIOGRAPHY**

1. ISO 9308-1:2014. Water quality – Enumeration of *Escherichia coli* and coliform bacteria – Part 1: Membrane filtration method for waters with low bacterial background flora.
2. ISO 9308-1:2000. Water quality – Detection and enumeration of *Escherichia coli* and coliform bacteria – Part 1: Membrane filtration method.
3. Sambrook, J., E.F. Fritsch, and T. Maniatis (1989) Molecular cloning: a laboratory manual, 2nd ed.
4. Tartoff, K.D., and C.A. Hobbs (1987) Bethesda Research Laboratories Focus.9: 12.
5. Chapman, G.H. (1947) J. Bact. 53: 504.

**PRESENTATION**

		Contents	Ref.
Easy Dry™ Tergitol + TTC	60 mm ready-to-use plates	100 plates	87518

**TABLE OF SYMBOLS**

<b>LOT</b> Batch code	 Keep away from sunlight	 Manufacturer	 Use by	 Fragile, handle with care
<b>REF</b> Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse



**LIOFILCHEM® s.r.l.**

Via Scozia zona ind.le, 64026 Roseto degli Abruzzi (Te) Italy  
Tel. +39 0858930745 Fax +39 0858930330 www.liofilchem.net liofilchem@liofilchem.net