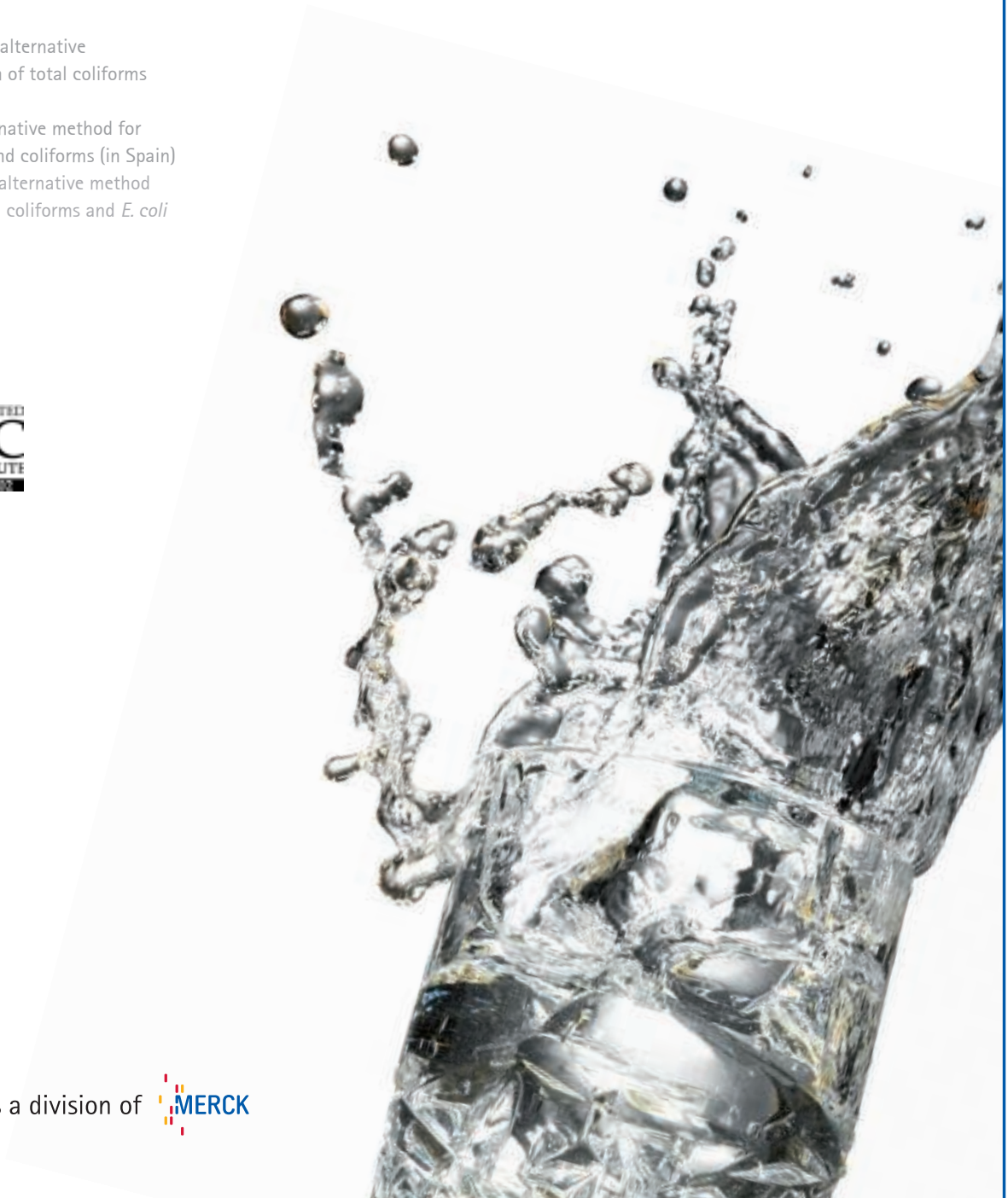
Data Sheet

Chromocult® Coliform Agar

Selective agar for the simultaneous detection of total coliforms and *E. coli* in drinking water and processed food samples

- US-EPA approved as alternative method for detection of total coliforms and *E.coli* in Water
- EU approved as alternative method for detection of *E. coli* and coliforms (in Spain)
- AOAC™ approved as alternative method for detection of total coliforms and *E. coli* in processed food



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The manufacturing process for food and water often results in metabolic injury to the microorganisms and/or reduction of microbial members. Sub lethal microbial injury is caused by chemical or heat treatment as well as storage under frozen, dried or chilled conditions. Traditional culture media used for the detection of coliforms/*E. coli* often contain ox bile or bile salts to inhibit Gram-positive bacteria. These strong inhibitors however may limit the growth of the targeted micro-organisms if they are already sub lethally damaged.

Benefits

- **Save time:** Fast method for simultaneous detection of coliforms and *E. coli* in water and processed food.
- **Safe analytic results:** Safe detection of injured bacteria because of careful selected inhibitors. Less danger of false negative results, EPA and AOAC™ approved.
- **Easy:** Clear detection of coliforms and *E. coli* even in presence high amount of accompanying flora. Just add the recommend Supplement.
- **Save money:** Easy confirmation of *E. coli*. Just add a drop of Indole reagent to a colony and the cherry colour shows you whether it is *E. coli* or not.

Intended Use

Chromocult® Coliform Agar is a selective and differential chromogenic culture medium intended for use in microbiology laboratories analyzing food and water. Within 24 hours this medium enables the detection, differentiation and enumeration of *E. coli* and coliforms from drinking water and processed food matrices such as frankfurters, cooked chicken and non-fat dried milk. A careful selection of inhibitors used in the selective media is required to ensure the growth and recovery of these damaged microorganisms. Chromocult® Coliform Agar contains Natriumheptadecylsulfat as an inhibitor of Gram-positive bacteria which has no negative effect on the growth of the targeted coliforms/*E. coli*. Chromocult® Coliform Agar is therefore the ideal medium for the detection of coliforms/*E. coli* in drinking water and processed foods.

Application

Water testing

For water testing the agar medium base should be used with the addition of antibiotics. In the US-EPA study the agar medium base was supplemented with 10 mg of cefsulodin per liter. The European study in Spain was performed with the agar medium base supplemented with the *E. coli*/Coliform Selective Supplement. Chromocult® Coliform Agar is usually inoculated by the membranefilter method. Filter an appropriate volume of sample (e.g., 100 ml for municipal drinking water, 250 ml for bottled water, or 1 ml for surface water) using a membrane filter. Place the filter on Chromocult® Coliform Agar ensuring that no air is trapped underneath. Incubate the inoculated dishes aerobically at 35 – 37°C in an inverted position for 24 hours. After incubation, examine the plates for the presence of typical colonies of *E. coli* and other coliforms.

NOTE: The type of membrane filter affects the size and coloration of colonies.

Food testing

For processed food samples the agar medium base can be used without the addition of antibiotic supplements (as in the AOAC™ study). For fresh food samples with a higher microbial load, Chromocult® Coliform Agar ES (Merck Millipore cat. no. 1.00850) is recommended. Chromocult® Coliform Agar is usually inoculated by the pour plate method. Using a sterile pipette, transfer 1 ml of the liquid test sample (or 1 ml from the appropriate dilution) to a sterile Petri dish. Pour into each Petri dish approximately 15 ml of the Chromocult® Coliform Agar while the medium is still liquefied, but only after the medium has been cooled to 45 – 50°C in a water bath. Carefully swirl the plate until the inoculum is thoroughly mixed with the medium. Allow the mixture to solidify on a cool horizontal surface. Incubate the inoculated dishes aerobically at 35 – 37°C in an inverted position (agar side up) for 24 hours. After incubation, examine the plates for the presence of typical colonies of *E. coli* and other coliforms.

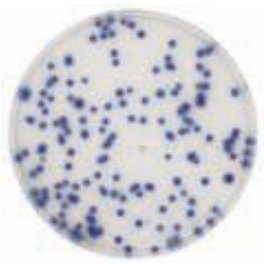
More detailed information about validation studies, limitation or performance characteristics are described in the Technical Information.

Quality control

Test strains	Inoculum (CFU/plate)	% Recovery rate	Colony colour	Salmon GAL	XGlucuronide
E. coli ATCC 11775	10 – 100	≥ 70	dark blue to violet	+	+
E. coli DSM 502	10 – 100	≥ 70	blue to violet	+	+
Citrobacter freundii ATCC 8090	10 – 100	≥ 70	salmon to red	+	_
Enterobacter aerogenes ATCC 13408	10 – 100	≥ 70	salmon to red	+	_
Klebsiella pneumoniae ATCC 13883	10 – 100	≥ 70	salmon to red	+	_
Salmonella Enteritidis ATCC 13076	10 – 100	not limited	colorless	_	_
Enterococcus faecalis ATCC 19433	1,000 – 2,000	≤ 0.01			
Bacillus cereus ATCC 11778	1,000 – 2,000	≤ 0.01			

Ordering Information

Description	Order No.	Pack Size
Chromocult® Coliform Agar	1.10426.0500	500 g
E. coli/Coliform Selective Supplement	1.00898.0010	1 x 10 vials
Buffered Peptone Water (BPW)	1.07228.0500 1.07228.5000	500 g 5 kg
Sodium chloride peptone broth (buffered)	1.10582.0500 1.10582.5000	500 g 5 kg
Chromoplate® Coliform Agar	1.10156.0001	20 plates
Additives		
KOVACS Indole reagent	1.09293.0100	100 ml
Bactident® Indole	1.11350.0001	30 ml



Escherichia coli ATCC 11775



Citrobacter freundii ATCC 8090

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