

# Instruction Manual

## MC-Media Pad Coliform

### Convenient culture media for enumeration of coliform bacteria

#### Application

For hygiene control, it is important to determine the microbial count in food and beverage products. MC-Media Pad Coliform is intended to determine the coliform number using a special medium composition and unique redox indicator dyes.

MC-Media Pad pre-sterilized, ready-to-use dry culture devices simplify testing and minimize the quantity of waste. MC-Media Pad is composed of a unique adhesive sheet, a test pad coated with medium and water absorption polymer, and a transparent cover film.

#### Test Principles

MC-Media Pads are coated with selective medium and chromogenic substrate for specific detection. Once the liquid sample is inoculated onto the test pad, the sample diffuses through the whole pad by capillary action.

The medium re-constitutes automatically. If coliform bacteria are present, they grow as blue-green/blue colored colonies on test pad.

#### AOAC Certification

AOAC Performance Tested Method<sup>SM</sup> study (Cer. No. 100402)

MC-Media Pad "Coliform" has been compared to FDA-BAM, and certified by the AOAC Research Institute Performance Tested Methods<sup>SM</sup> Program for enumeration of total coliform counts in Processed milk, ice cream, powdered cheese, omelets, raw pork, sausages, frozen pork, raw chicken, chicken brochette, frozen chicken, sliced raw tuna, sliced three-lined grunt, smashed raw sardine, dried cod, short-neck clams, smoked salmon, watermelon, boiled soy beans, frozen broccoli, raisins, dog food, dried pet food, French rolls, cookies, milk chocolate, udon noodles, dressing, rice.

#### Contents and Storage

100 pads (4x25 pads); catalogue number 1322990001

This kit should be stored between 2-15 °C. (Refrigerated)

#### Materials Required but not Provided

- Incubator (35±1°C)
- Stomacher or Blender
- Sampling bag (Recommended for Stomacher; bag with filter to eliminate food debris)
- Pipette or Pipettor and pipette tips
- Butterfield's phosphate buffer, phosphate buffered saline, saline or appropriate buffer

#### Sample Preparation

##### For solid food samples

Homogenize 50g of the test sample with 450 mL of appropriate diluent (e.g. Phosphate Buffered Saline, Butterfield's Phosphate Buffer, saline or water) with a stomacher. If necessary, make 10-fold serial dilution.

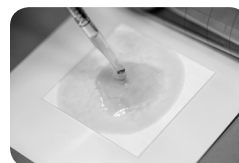
##### For liquid samples

Sample can be applied directly. If necessary, pH of sample should be adjusted to neutral (pH 7.0 ±0.2).

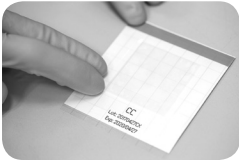
#### Test Procedure

##### Contents General Operation

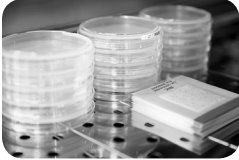
1. Open the aluminum bag, and remove MC-Media Pad. If necessary, write information on the cover film.
2. Lift the transparent cover film and pipette 1.0 mL of sample solution onto test pad. (It is recommended to lift the cover film diagonally for easy and secure re-sealing.)



3. Close the cover film and lightly press the edges of film to seal.



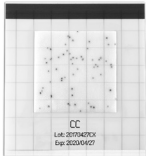
4. Incubate test plate at  $35\pm 1$  °C for  $24\pm 2$  hours.



5. Re-seal the opened bags and store at 2-15°C for up to 4 weeks.



## Interpretation



Count all colored colonies (blue-green/blue) as coliform regardless of strength of color. If the large number of colonies is difficult to count, colony counts can be estimated by counting colonies in one grid square and multiplying by 20.

If more than  $10^4$  of microbes are grown, the entirety of the test pad may appear as stained, and it may appear that no individual colonies were formed. If this is the case, dilute the sample further and re-test. If necessary, the target colony can be picked up with a sterile needle from the test pad for further analysis.

## Precautions

- The test is designed for use by quality control personnel and others familiar with testing samples potentially contaminated with coliform
- Read this instruction manual carefully before use
- After opening the aluminum bag, unused pads should be stored in the aluminum bag sealed with tape, and kept in a cool (2-15°C) environment. After opening, use all pads within 1 month
- Do not expose unused pads to sunlight or ultraviolet light
- Do not use a discolored or damaged pad
- A wrinkle on the test pad should not affect detection
- Small fragments of fabric on or around the test pad should not affect detection
- Do not use the pads after the expiration date. The quality of an expired pad is not warranted
- The measurement range is less than 300 cfu/pad. If more than 300 cfu/pad are counted, further dilution is recommended
- MC-Media Pad Coliform detects coliform bacteria by existence of  $\beta$ -galactosidase. Therefore certain bacteria (genus *Aeromonas* etc.) which possess this enzyme may grow as coliform
- In cases where  $\beta$ -galactosidase containing foods are applied (e.g. cheese, lactic drink or liver), the entirety of test pad may appear as stained
- The used kit must be decontaminated by autoclaving or boiling, and disposed according to local regulations for waste

**Impex Produkter AS**  
**Gamle Drammensvei 107**  
**1363 Høvik**  
**www.impex.no**  
**info@impex.no**  
**Tel.: 22 32 77 20**