

HyServe



## .... Compact Dry

*Easy test method for counting micro-organisms*

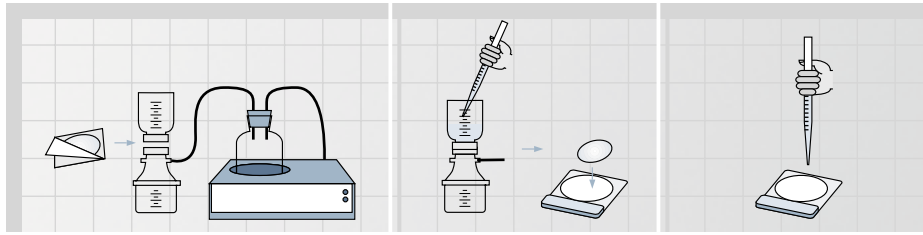
## ■ ■ ■ ■ Compact Dry – An easy test method for counting micro-organisms

Compact Dry is a *ready-to-use* test method which helps to reduce the time needed to perform microbial testing. Therefore, it allows maximum productivity by increasing efficiency. The plates can be used to test raw materials as well as finished products like food, beverage, meat, cosmetic or other samples. The Compact Dry plates can also be used as a contact plate for difficult areas using the Compact Dry swab.

Compact Dry is an *easy-to-read* results test method. Place 1 ml of sample onto the plate. The liquid samples will self diffuse evenly over the whole plate. Incubate the plates at the temperature specified in the package inserts. The grown colonies are pigmented with different colors, developed by chromogenic substrates and redox indicators. The type of bacteria is identified by its colour. For further investigation bacteria can be easily selected.

| Product   | Incubation time | Incubation temperature                       |
|---|-----------------|--|
| Compact Dry TC for total count                    | 48 hours        | 35 ± 2° C (20 – 42° C)                       |
| Compact Dry EC for <i>E. coli</i> and coliform    | 24 hours        | 35 ± 2° C                                    |
| Compact Dry CF for coliform                       | 18 – 24 hours   | 35 ± 2° C<br>40 – 42° C for faecal coliforms |
| Compact Dry YM for yeast and mold                 | 3 – 7 days      | 25 – 30° C                                   |
| Compact Dry ETB for enterobacteriaceae            | 24 – 48 hours   | 35 – 37° C                                   |
| Compact Dry SA for <i>Staphylococcus aureus</i>   | 48 hours        | 35 – 37° C                                   |
| Compact Dry VP for <i>Vibrio parahaemolyticus</i> | 18 – 24 hours   | 35 – 37° C                                   |
| Compact Dry TTC for total count in tea products   | 48 hours        | 35 ± 2° C                                    |
| Compact Dry ETC for enterococci                   | 20 – 24 hours   | 35 ± 2° C                                    |
| Compact Dry SL for salmonella                     | 20 – 24 hours   | 41 – 43° C                                   |

■ ■ ■ ■ \*Please use the incubation temperature/time according to the legal specification of each country's food analysis regulations.



Compact Dry is also an *easy-to-store* test method. The plates can be kept at room temperature for up to two years and can be used over an incubation temperature range of 20 – 42° C.

Compact Dry is a very safe and convenient product. Its rigid structure allows for easy transportation and an unlimited number of units can be stacked safely in an incubator. The risk of contamination of the medium is eliminated by using the covering lid.

Additionally membrane filters can be tested using Compact Dry plates. Filter 100 ml water or any other liquid using an ordinary membrane filter (e.g 47 mm, 45 µm), then pipette 1 ml of sterile water into the middle of the Compact Dry plate and place the filter on the Compact Dry plate. The filter should be trap side up. Colonies will grow on the filter.

#### **Membrane filter method: procedure for Compact Dry**

- Take out a Compact Dry TC plate, take off the cap of a plate, pipette 1 mL of sterile water in the middle of dry sheet.
- Open a package of sterilized filter and pick up a sterilized membrane filter with sterilized tweezers.
- Remove the funnel of sterilized filtering device and set a sterilized membrane filter.
- Set the funnel, pour the sample water in the funnel and filter the sample water under reduced pressure.
- After the filtering sample, wash the inner surface of funnel with 20 – 30 ml of sterile water and filter it. Repeat the same steps two or three times.
- Detach the funnel and take the membrane filter out with sterilized tweezers. Put on the filter on the prepared Compact Dry TC plate without bubbles. The trap side is upper.
- Turn over the plate capped and put in an incubator for incubation under the prescribed condition.

Compact Dry TC



Compact Dry EC

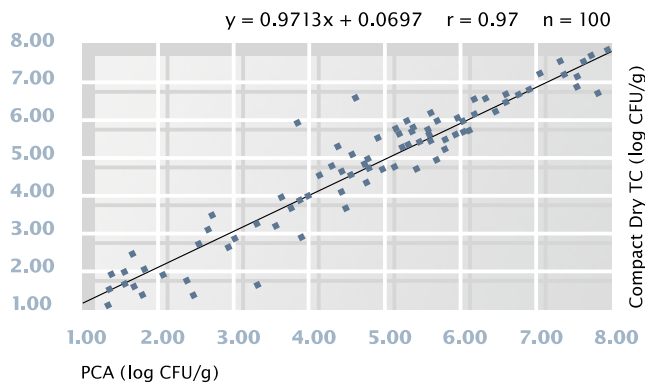


## Compact Dry menu

### Compact Dry TC (Total Count) Bacteria form *red* colonies

Compact Dry TC is a medium for total viable bacterial count, which contains nutrient standard agar. The colonies grown on Compact Dry TC are red due to redox indicator tetrazolium salt.

Regression line data from Compact Dry TC method plotted versus the conventional PCA method (standard plate count agar) shows a good correlation per 100 food samples for the population of me-sophilic aerobic micro-organisms is shown.

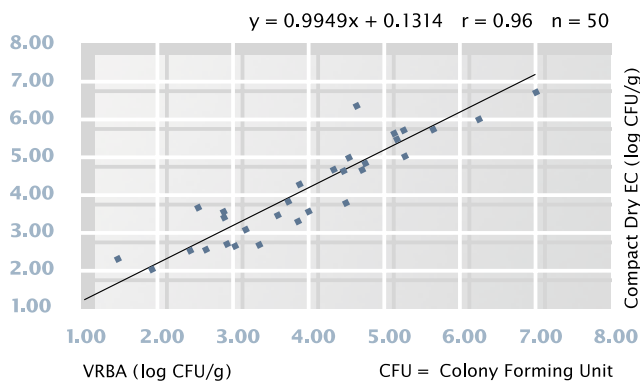


### Compact Dry EC (*E. coli* and coliforms)

#### Bacteria form *blue and red* colonies

Compact Dry EC is a medium for *E. coli* and coliforms. The medium contains two kinds of chromogenic enzyme substrates: Magenta-Gal and X-Gluc. *E. coli* forms blue colonies. The total coliform group count is the sum of both the red and blue colonies.

Regression line data from Compact Dry EC method plotted versus the conventional VRBA method (violet red bile agar) shows a good correlation per 50 food samples for the population of coliforms is shown. Compact Dry EC is AOAC approved.





Compact Dry CF



Compact Dry YM

### Compact Dry CF for coliform

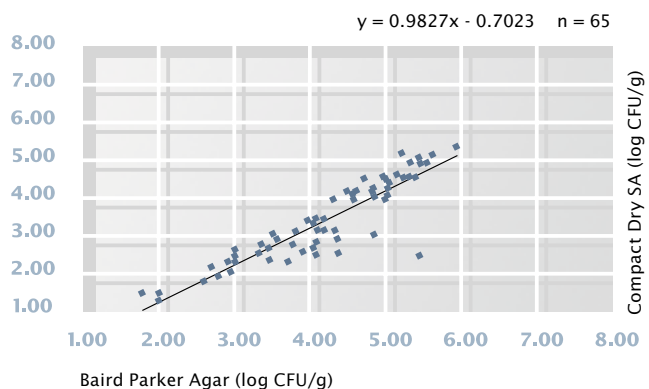
For the detection of coliforms Compact Dry CF is an easy tool. Coliforms grow with blue/blue green colonies as the recipe contains the chromogenic enzyme substrate X-GAL. The growth of bacteria other than coliforms is mainly inhibited but in case of growth they form colourless colonies. Compact Dry CF is AOAC approved.

### Compact Dry YM for yeast and mould

With Compact Dry YM yeasts and mould can be differentiated by colour development. The medium contains the chromogenic enzyme substrate X-Phos which turns blue with many yeasts. Moulds form fluffy colonies with a characteristic colour. Antibiotics inhibit the growth of bacteria. The Compact Dry YM allows a very good 3-dimension growth of yeast and mould. Compact Dry YM is AOAC approved.

### Compact Dry SA for *Staphylococcus aureus*

Compact Dry SA is a medium used to determine *Staphylococcus aureus* by means of selective growth and differentiation by the egg yolk reaction. This product consists of a Compact Dry SA plate which is based on improved mannitol salt agar. *Staphylococcus aureus* generates yellow pigments which result in light yellow colonies. The lipid-protein complex (lecithin) in the egg yolk reaction is split by lipase which changes the peripheral medium around the colonies to turbid white.



Compact Dry ETB

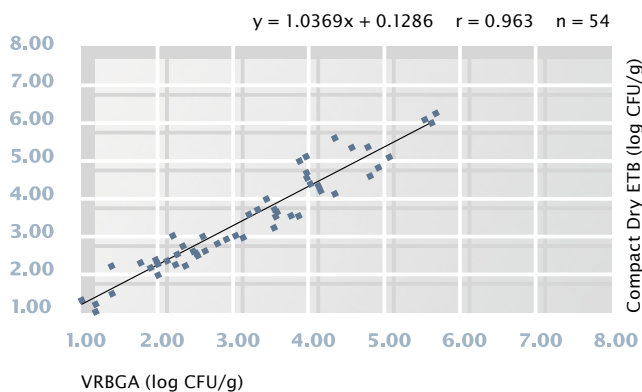


Compact Dry ETC



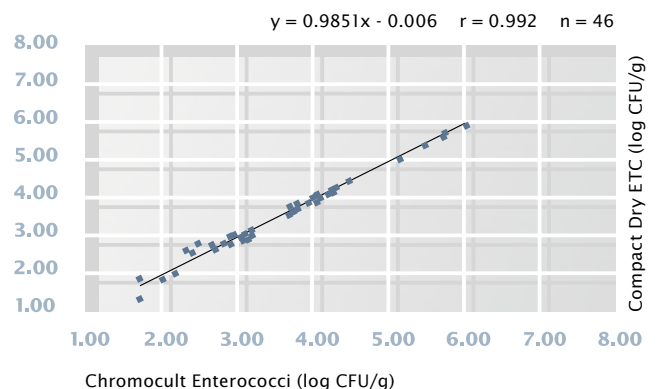
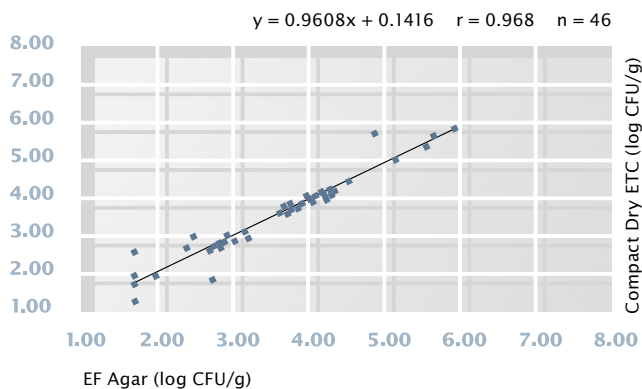
### Compact Dry ETB for Enterobacteriaceae

Using Compact Dry ETB it's very easy to detect Enterobacteriaceae. It's substrates allows the easy differentiation of the Enterobacteriaceae from other groups.



### Compact Dry ETC is a new plate for easy detection of Enterococci in food and water

Enterococci occur and grow in a variety of fermented foods. The presence of enterococci in food products has long been considered as an indication of poor sanitary conditions during production and processing. On the other hand, fermented foods containing enterococci, have a long history of safe use. It is also claimed that enterococci play an important role in the development of the organoleptic properties of the fermented foods. For water, the presence of enterococci serves as an indicator of faecal contamination. Enterococci in water can come only from faeces of human or animal origin. The Compact Dry ETC is based on the usage of X-glucoside (X-Gluc.) and antibiotics as selective agents. Enterococci will grow with blue to blue green colonies after an incubation for 24 hours at 37°C.





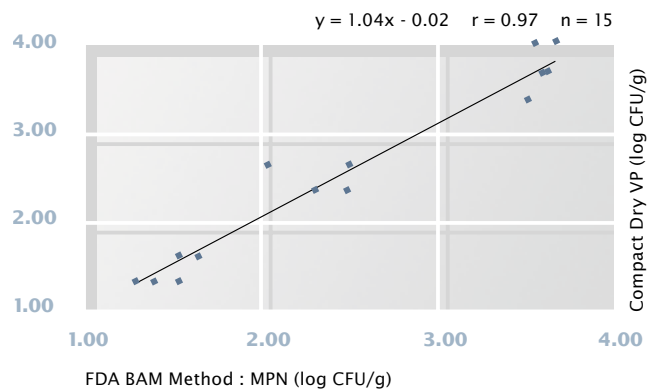
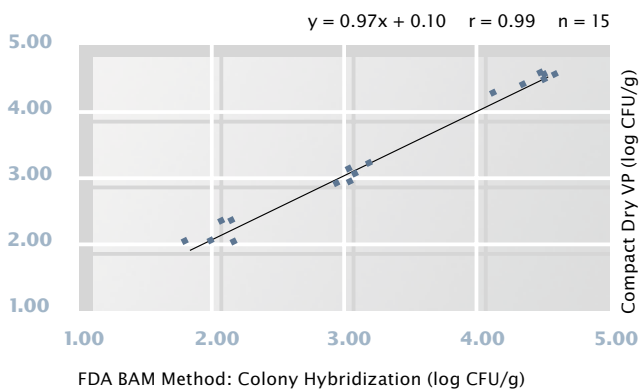
Compact Dry SL

### Compact Dry SL for Salmonella

Compact Dry SL detects salmonella using 20 – 24 hour pre-enrichment cultures. The plates are based on the combination of three different test principles: Allalazation of the medium, by Salmonella's lysine decarboxylase ability(the medium colour will change from blue-purple to yellow); Greening of the colony, caused by decomposition of chromogenic substrate with a specific enzyme of Salmonella (black colonies are generated by hydrogen sulphide producing Salmonella); the motility of Salmonella.

### Compact Dry VP for *Vibrio parahaemolyticus*

*Vibrio parahaemolyticus* is a bacterium that can cause cholera. *Vibrio parahaemolyticus*-associated gastroenteritis is the infection caused by this organism. *Vibrio parahaemolyticus* naturally inhabits coastal waters and is present in higher concentrations during the summer; it is a halophilic, or salt-requiring organism. *Vibrio parahaemolyticus* is found in marine environments, sea foods, and the feces of patients with acute enteritis. Compact Dry VP can not only easily detect *Vibrio parahaemolyticus*, but also differentiate *Vibrio parahaemolyticus* from other vibrios. The product contains a specific chromogenic substrate for *Vibrio parahaemolyticus* which develops blue/green or blue colonies, whereas other vibrios develop white colonies.



### Detection of lactic acid bacteria using Compact Dry TC

For the detection of lactic acid bacteria it is recommended to use Compact Dry TC. Samples should be diluted using sterilized saline and incubated under anaerobic conditions.

## Approval

Compact Dry TC is AOAC validated : AOAC No. 010404

Compact Dry TC is approved by:

- Servico Publico Federal; Minsterio da agricultura, pecuaria e ae Astecimento;  
Brazil No. AUP/CGI/DIPOA No. 0453/2006
- Microbiological Methods Committee; Microbiology Evaluation Division;  
Bureau of Microbial Hazards, Food Directorate, Health Products and Food Branch,  
Health Canada; Ottawa, Ontario K1A 0L2
- The plates are submitted to Microval approval

These plate are also ISO 16140 validated. Compact Dry plates are produced at an ISO 9001 certified site.

### References

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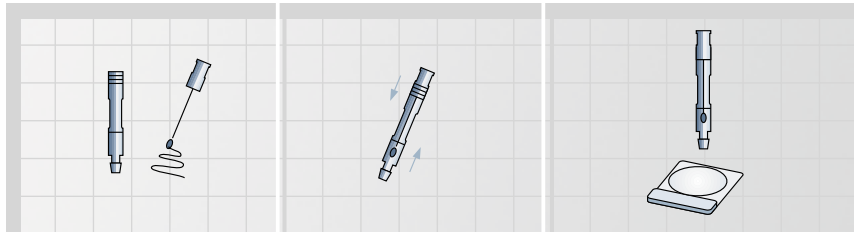


## Features and benefits

Compact Dry combines the features and benefits of the traditional plate media with the modern features of dehydrated film media.

This unique combination will shorten your test time and increase your lab efficiency, thus reducing your costs.

| Steps                                | Criteria                              | Homemade plates | Prepared plates | Other dehydrated films | Compact Dry |
|--------------------------------------|---------------------------------------|-----------------|-----------------|------------------------|-------------|
| <b>Preparation and storage</b>       | Ready to use                          |                 | ■               | ■                      | ■           |
|                                      | Long shelf life RT                    |                 |                 |                        | ■           |
|                                      | Small size (for storage and disposal) |                 |                 | ■                      | ■           |
| <b>Inoculation (simple and fast)</b> | Liquid samples                        | ■               | ■               | ■                      | ■           |
|                                      | Surfaces                              |                 |                 | ■                      | ■           |
| <b>Incubation</b>                    | Easy handling (rigid plastic)         | ■               | ■               |                        | ■           |
|                                      | Small size                            |                 |                 | ■                      | ■           |
|                                      | 100% sterile (safe cover)             | ■               | ■               |                        | ■           |
|                                      | Stackable                             | ■               | ■               |                        | ■           |
|                                      | No direct contact with media          |                 |                 |                        | ■           |
| <b>Reading and interpretation</b>    | Easy counting (chromogenic)           |                 | ■               | ■                      | ■           |
|                                      | Easy picking and cloning              | ■               | ■               |                        | ■           |
| <b>Validation</b>                    | Standardization of the production     |                 | ■               | ■                      | ■           |
|                                      | Validation Approvals                  |                 | ■               | ■                      | ■           |



## ■ ■ ■ Compact Dry Swab for surfaces, meat and dry areas



Compact Dry Swab is a very easy to use tool for the sampling of difficult areas, swabbing food (e.g. meat) or checking dry surfaces.

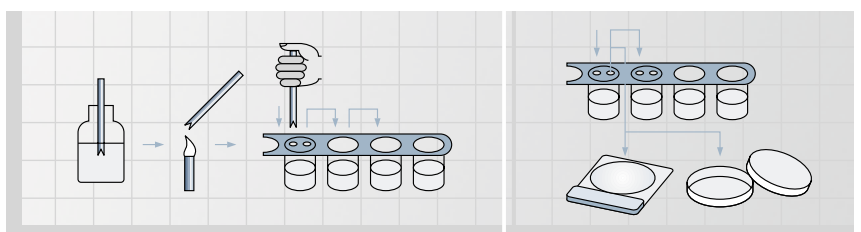
- Screw out the Swab and wipe over your test area.
- Close the Swab and invert several times in order to release the micro-organisms into the liquid.
- To open, hold the swab by the orange area and invert. To release the sample press smoothly in the middle and 1 ml of sample will be dispensed onto the plate.
- The Compact Dry Swab contains 1 ml Peptone Buffered Saline.
- The Compact Dry Swab can be stored everywhere at room temperature up to 2 years.

## ■ ■ ■ Dilution rack for easy dilution series and Opener



The Dilution Rack contains 4 wells of 9 ml sterile Buffered Sodium Chloride Peptone Solution. By pipetting 1 ml from one well to the next, it allows easy and fast 10-fold dilutions of your samples.

- Insert the Opener into the aluminium seal and pierce two holes. The opener can be decontaminated using either an alcohol solution/wipe or by placing directly into a flame.
- Dispense 1 ml of the specimen with clean pipette into the holes.
- Insert a second pipette into the second hole and homogenize the specimen.
- Remove 1 ml of the homogenized specimen and place it onto the Compact Dry plate.
- To dilute further, repeat the above steps.
- Each vial contains 9 ml Phosphor buffered Saline.
- Can be stored anywhere at room temperature up to 1 year.



## Product overview

|                                      | ID-Number | Packaging                                | Application  |
|--------------------------------------|-----------|--|--|
| <b>Compact Dry TC</b>                | 1 000 166 | 40 plates                                | Total Count  |
|                                      | 1 000 167 | 240 plates                               |  |
|                                      | 1 002 877 | 880 plates                               |  |
| <b>Compact Dry EC</b>                | 1 000 168 | 40 plates                                | <i>E.coli</i> and coliforms                                |
|                                      | 1 000 169 | 240 plates                               |  |
|                                      | 1 002 878 | 880 plates                               |  |
| <b>Compact Dry CF</b>                | 1 000 867 | 40 plates                                | Coliforms  |
|                                      | 1 000 868 | 240 plates                               |  |
|                                      | 1 002 879 | 880 plates                               |  |
| <b>Compact Dry YM</b>                | 1 000 869 | 40 plates                                | Yeast and mould  |
|                                      | 1 000 870 | 240 plates                               |  |
|                                      | 1 002 880 | 880 plates                               |  |
| <b>Compact Dry ETB</b>               | 1 002 941 | 40 plates                                | Enterobacteriaceae   |
|                                      | 1 002 942 | 240 plates                               |  |
|                                      | 1 002 943 | 880 plates                               |  |
| <b>Compact Dry SA</b>                | 1 000 899 | 40 plates                                | <i>Staphylococcus aureus</i>                               |
|                                      | 1 001 013 | 240 plates                               |  |
|                                      | 1 002 881 | 880 plates                               |  |
| <b>Compact Dry SL</b>                | 1 002 973 | 40 plates                                | Salmonella   |
|                                      | 1 002 938 | 240 plates                               |  |
|                                      | 1 002 940 | 880 plates                               |  |
| <b>Compact Dry VP</b>                | 1 000 900 | 40 plates                                | <i>Vibrio parahaemolyticus</i>                             |
|                                      | 1 001 014 | 240 plates                               |  |
|                                      | 1 002 882 | 880 plates                               |  |
| <b>Compact Dry TTC</b>               | 1 006 732 | 40 plates                                | Total count for tea products;<br>with catechin inactivator |
|                                      | 1 006 731 | 240 plates                               |  |
| <b>Compact Dry ETC</b>               | 1 002 944 | 40 plates                                | Enterococci  |
|                                      | 1 002 945 | 240 plates                               |  |
|                                      | 1 002 946 | 880 plates                               |  |
| <b>Compact Dry Swab</b>              | 1 002 953 | 40 tubs/box                              | for surface  |
|                                      | 1 002 952 | 240 tubs/box                             |  |
| <b>Dilution Rack for Compact Dry</b> | 1 000 888 | (4 wells x 3) x 10<br>= 120 wells/ 1 box | for dilutions  |
| <b>Opener for Dilution rack</b>      | 1 000 887 | 1 piece                                  | for sterile opening  |
| <b>Egg Yolk Suspension</b>           | 1 002 755 | 40 plates                                | for Compact Dry SA   |
| <b>Incubox</b>                       | 1 000 048 | 1 piece                                  | Small Incubator for Food stamps and/or Compact Dry         |

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