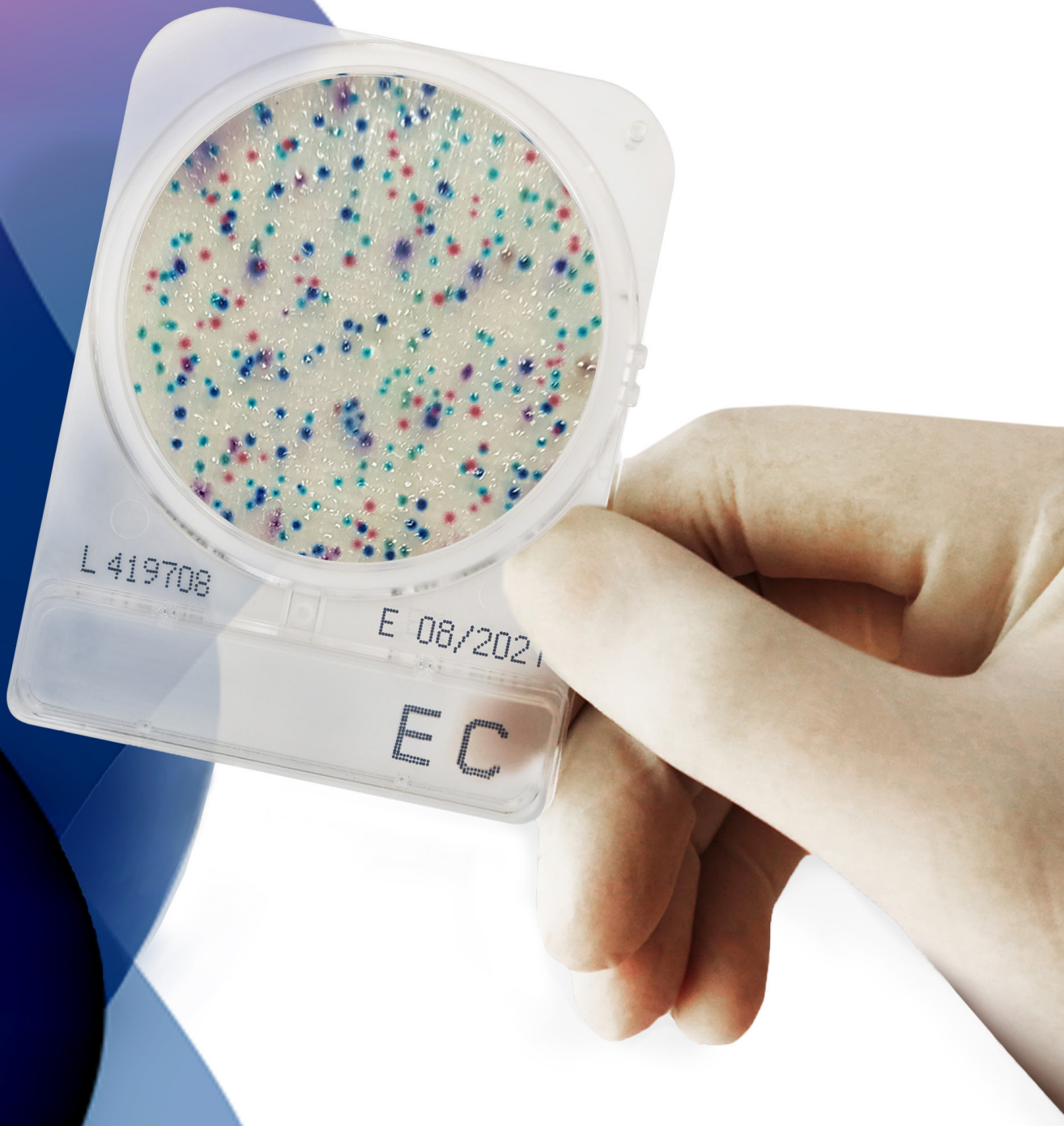
CompactDry™

BROCHURE



SHIMADZU
Excellence in Science

Shimadzu Diagnostics Europe

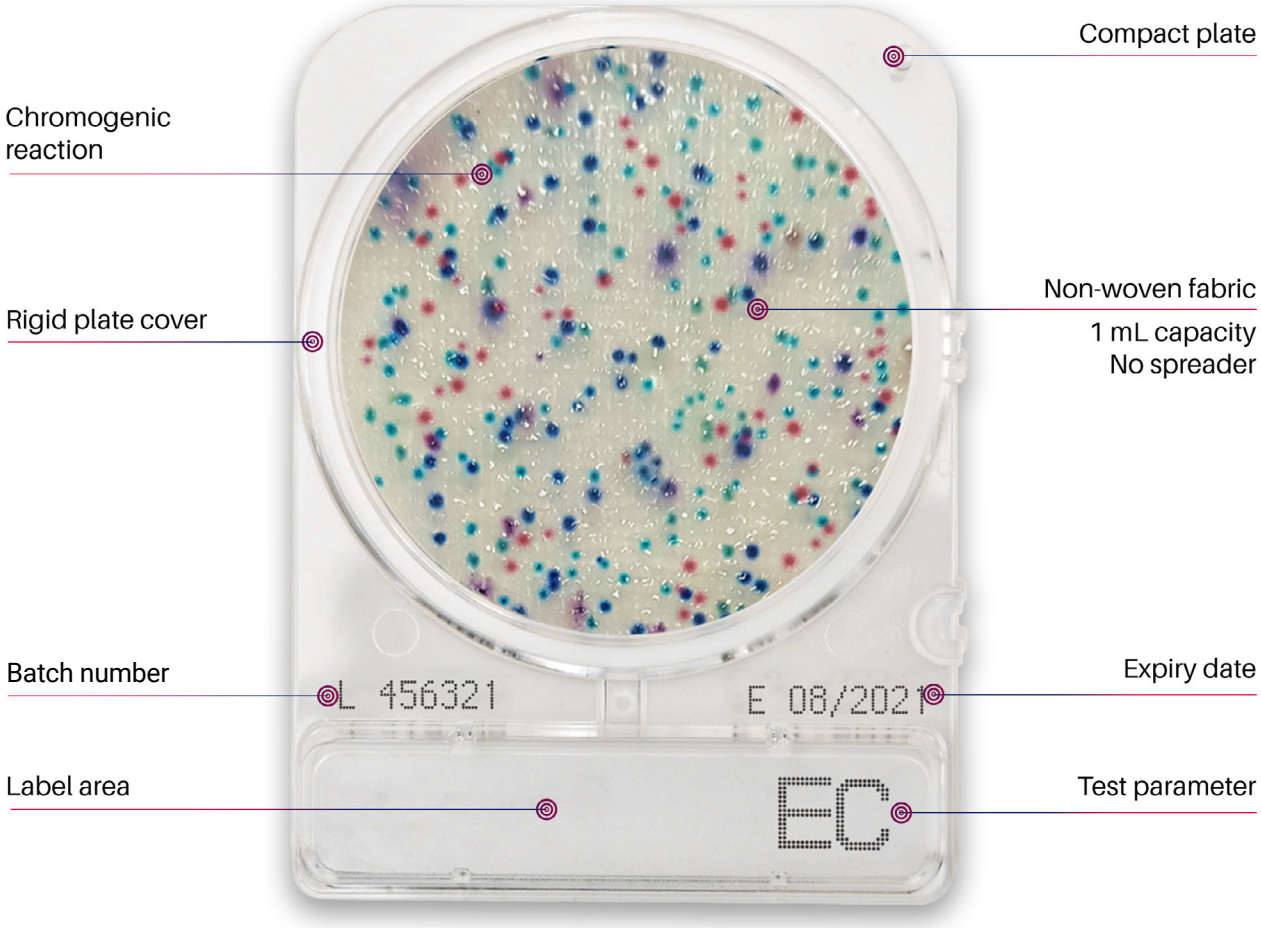
CompactDry : an easy test method to detect and identify microbial contamination

CompactDry is a ready-to-use method to minimise microbial testing time and improve quality control processes. Dehydrated, selective and chromogenic media for total count and/or microbial species identification.

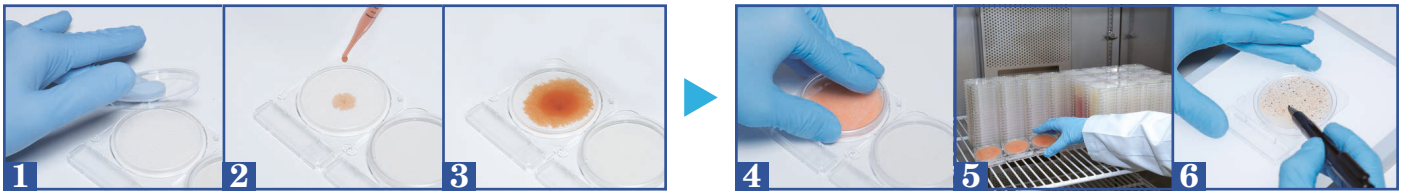
CompactDry can be used to test raw materials and processed food products - food, drinks, ready meals, cosmetic and environmental. CompactDry is also used to test surfaces (both food and environmental) using sample swabbing.

CompactDry has a sealed lid to minimise cross-contamination/spillage and a rigid structure to ease handling and stacking.

Features



CompactDry Protocol



1 Remove the cap.

2 Dispense 1 mL of sample in the middle of the CompactDry plate.

3 The sample diffuses passively and evenly across the dehydrated media sheet, rehydrating the dry medium into a gel within seconds.

4 Replace the cap, label and turn the plate over.

5 Incubate for the appropriate time and at the required temperature.

6 Following incubation, count the number of coloured microbial colonies.

Product	Target	Incubation temperature	Incubation time	Approval
CompactDry AQ	Heterotrophic bacteria in water	36 ± 2 °C (Filter/SMEWW method) 22 ± 2 °C (ISO6222:1999)	44 ± 4 hours 68 ± 4 hours	/
CompactDry BC	*Bacillus cereus*	30 ± 1 °C	24 ± 2 hours	AOAC/MicroVal
CompactDry CF	Coliform	37 ± 1 °C for all other matrices 35 ± 2 °C for raw meat	24 ± 2 hours	AOAC/NordVal/ MicroVal
CompactDry CF-L	Coliform (for dairy products)	37 ± 1 °C	24 ± 2 hours	/
CompactDry EC	*E. coli* and coliform	37 ± 1 °C for all other matrices 35 ± 1 °C for raw meat	24 ± 2 hours	AOAC/NordVal/ MicroVal
CompactDry ECO	*E. coli*	35 °C ± 1 °C or 37 °C ± 1 °C	24 ± 2 hours	/
CompactDry ETB	Enterobacteriacae	37 ± 1 °C	24 ± 2 hours	AOAC/NordVal/ MicroVal
CompactDry ETC	Enterococci	NordVal: 36 ± 1 °C AOAC/MicroVal: 37 ± 1 °C	22 ± 2 hours	AOAC/NordVal/ MicroVal
CompactDry LM	*Listeria monocytogenes*	Detection: 37 ± 1 °C Enumeration: 37 ± 1 °C	Detection: 24 to 48h Enumeration: 24 to 48h	MicroVal (detection/ enumeration)
CompactDry LS	Listeria species	35 - 37 ± 1 °C	24 – 48 hours	/
CompactDry PA	*Pseudomonas aeruginosa*	36 ± 1 °C	48 ± 3 hours	MicroVal
CompactDry SL	Salmonella	Enrichment: 35 – 37 °C Detection: 41 – 43 °C	Enrichment: 20 - 24 hours Detection: 20 - 24 hours	MicroVal
CompactDry TC	Total viable count	35 ± 1 °C for raw meat 30 ± 1 °C for all other matrices	48 ± 3 hours	AOAC/NordVal/ MicroVal
CompactDry TCR	Total viable count	35 ± 1 °C 32 ± 1 °C (dairy products)	24 ± 2 hours 48 ± 3 hours	AOAC
CompactDry VP	*Vibrio parahaemolyticus*	35 ± 1 °C	19 ± 1 hours	/
CompactDry X-SA	*Staphylococcus aureus*	37 ± 1 °C	24 ± 2 hours	AOAC/NordVal/ MicroVal
CompactDry YM/ YMR	Yeast and mould	25 ± 1 °C	YMR: 72 ± 3 hours YM: 3 – 7 days	AOAC/NordVal/ MicroVal

Products

CompactDry AQ for water heterotrophic bacteria

CompactDry AQ plates contains a chromogenic nutrient poor medium for determining the colony count of heterotrophic organisms in treated drinking water and ultra-pure water. Colonies are almost all red. Yeast tends to grow as white-pink colonies. Mould grows in a typical 3-dimensional " cotton wool " form.

PACKAGES	PRODUCT NUMBER
40 plates	54061-0AQ-0040
240 plates	54061-0AQ-0240
1400 plates	54061-0AQ-1400

Incubation Temperature
44±4 hours @36±2°C 68±4 hours @22±2°C ISO6222:1999 Water quality-Enumeration of culturable micro-organisms
Interpretation
Red

CompactDry BC for the detection of *Bacillus cereus*

CompactDry BC plates combine the properties of chromogenic dry media and gel contact plates. It is used for the quantitative detection of *Bacillus cereus* in food samples. *Bacillus cereus* forms light blue to blue colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54068-0BC-0040
240 plates	54068-0BC-0240
1400 plates	54068-0BC-1400

Incubation Temperature
30 ± 1 °C
Incubation Time
24±2 hours
Interpretation
Green / Blue colonies

MicroVal

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CompactDry CF for coliform

CompactDry CF is an easy tool for the detection of coliform bacteria. The media contains the chromogenic enzyme substrate X-Gal and coliform colonies are coloured blue/blue green. The growth of other bacterial types (genius) are mostly inhibited, but in certain instances may form colourless colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54053-0CF-0040
240 plates	54053-0CF-0240
1400 plates	54053-0CF-1400

Incubation Temperature
37 ± 1 °C for all other matrices 35 ± 2 °C for raw meat
Incubation Time
24±2 hours
Interpretation
Blue / Blue green colonies

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MicroVal

NordVal

Products

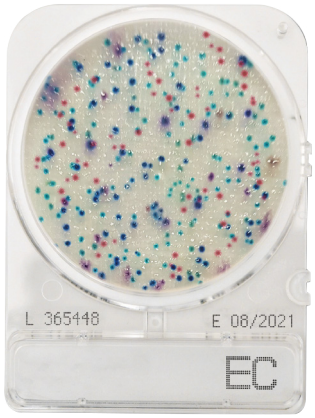
CompactDry CF-L for coliforms detection in dairy

CompactDry CF-L is a ready to use dehydrated media plate used to detect coliform bacteria in dairy products such as cheese, milk, yogurt, and any products containing lactic acid bacteria. It is specifically formulated to counter the negative effects of lactic acid bacteria on chromogenic substrates. Coliforms colonies are blue to blue/green.

Incubation Temperature
37 °C ± 1 °C
Incubation Time
24 ± 2 hours
Interpretation
Blue / Blue green colonies
● / ●

PACKAGES	PRODUCT NUMBER
40 plates	54065-CFL-0040
240 plates	54065-CFL-0240

CompactDry EC (*E. coli* and coliforms)



CompactDry EC is a medium to detect *E. coli* and coliform bacteria. The medium contains two different chromogenic enzyme substrates: Magenta-Gal and X-Gluc. *E.coli* forms blue colonies. Red and blue colonies counted together provides the total coliform number.

Incubation Temperature
37 ± 1 °C for all other matrices 35 ± 1 °C for raw meat
Incubation Time
24±2 hours
Interpretation
E. coli : Blue / Blue purple colonies **Coliform** : Total number of both red and blue colonies
● / ●

PACKAGES	PRODUCT NUMBER
40 plates	54052-0EC-0040
240 plates	54052-0EC-0240
1400 plates	54052-0EC-1400

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MicroVal

NordVal

Products

CompactDry ECO for *E. coli*

CompactDry ECO is a ready-to-use, chromogenic plate for enumeration and detection of *Escherichia coli* in food and drinks. Detection of *Escherichia coli* occurs through the combination of selective agents and chromogenic substrates. *Escherichia coli* form blue to blue purple colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54064-ECO-0040
240 plates	54064-ECO-0240
1400 plates	54064-ECO-1400

Incubation Temperature
35 °C ± 1 °C or 37 °C ± 1 °C
Incubation Time
24 ± 2 hours
Interpretation
Blue / Blue purple colonies

CompactDry ETB for Enterobacteriacae

CompactDry ETB is a very easy to use system to detect Enterobacteriacae. The substrate allows the differentiation of the Enterobacteriacae from other groups. Enterobacteriacae are red/purple coloured. Red/purple coloured colonies plus other coloured colonies together form the total gram negative bacteria count.

PACKAGES	PRODUCT NUMBER
40 plates	54055-ETB-0040
240 plates	54055-ETB-0240
1400 plates	54055-ETB-1400

Incubation Temperature
37 +/- 1 °C
Incubation Time
24±2 hours
Interpretation
Red / Red-Purple

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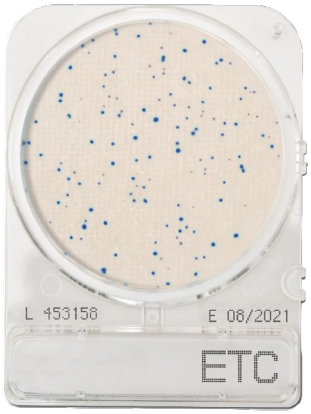
MicroVal NordVal

CompactDry ETC for easy detection of Enterococci in food and water



CompactDry ETC is based on the usage of X-glucoside (X-Gluc) and selective antibiotics. Enterococci beta-glucosidase targets X-Gluc and allows the specific detection of enterococci through the formation of blue to blue/green colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54056-ETC-0040
240 plates	54056-ETC-0240
1400 plates	54056-ETC-1400

MicroVal NordVal

Incubation Temperature
NordVal: 36 ± 1 °C AOAC/MicroVal: 37 ± 1 °C
Incubation Time
22 +/- 2 hours
Interpretation
Light blue / Blue colonies

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Products

CompactDry LM for *Listeria monocytogenes*

CompactDry LM is a ready-to-use, chromogenic plate for enumeration and detection of *Listeria monocytogenes* in food and drinks. Detection of *Listeria monocytogenes* occurs through the combination of selective agents and chromogenic substrates. *Listeria monocytogenes* form red colonies with a blue halo.

Incubation Temperature
Detection: 37 +/- 1 °C
Enumeration: 37 +/- 1 °C

Incubation Time
Detection : 24 to 48 +/- 2h
Enumeration: 24 to 48 ± 2 h

Interpretation
Red colonies with blue halo

MicroVal

PACKAGES	PRODUCT NUMBER
40 plates	54067-0LM-0040
240 plates	54067-0LM-0240
1400 plates	54067-0LM-1400

CompactDry LS for Listeria species

Incubation Temperature
35 - 37 ± 1 °C

Incubation Time
24 ± 2 hours
plus a further 24 ± 2 hours

Interpretation
Light blue / Blue colonies

Qualitative

Pre-enrichment
half fraser
30°C
24±2 hours

Pre-enrichment
fraser
35-37°C
48±2 hours

Incubation

Quantitative

Resuscitation Step
Buffered Peptone Water
20°C
1 hour

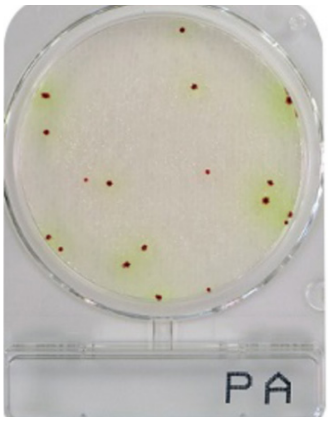
Incubation

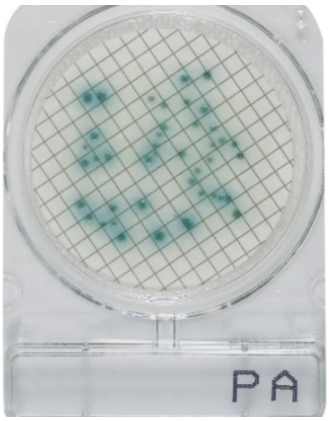
CompactDry LS is used for the qualitative and quantitative detection of Listeria in food and drinks. Evaluation of surfaces and working environments is achieved by using the combination of CompactDry LS and CompactDry Swabs. Detection of Listeria occurs through the combination of selective agents and chromogenic substrates . Listeria species form light blue/blue colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54060-0LS-0040
240 plates	54060-0LS-0240
1400 plates	54060-0LS-1400

Products

CompactDry PA for *Pseudomonas aeruginosa*





Incubation Temperature

36 +/- 1 °C

Incubation Time

48 +/- 3 hours

Interpretation

Red colonies surrounded by a greenish-yellow halo

MicroVal

Interpretation Membrane Filter Method

Light green / Green blue colonies

PACKAGES	PRODUCT NUMBER
40 plates	54062-0PA-0040
240 plates	54062-0PA-0240
1400 plates	54062-0PA-1400

CompactDry PA is used for quantitative detection of *Pseudomonas aeruginosa* in water samples. *P. aeruginosa* forms red colonies which are generally surrounded by a greenish-yellow halo.

CompactDry SL for Salmonella

CompactDry SL detects salmonella using a 20 – 24 hour pre-enrichment step. The plates are based on the combination of different test principles:

1. Alkalinisation of the medium, by Salmonella lysine decarboxylase, causes the medium to change colour from blue-purple to yellow. The yellow colouration spreads over the plate due to Salmonella motility.
2. Greening of the colonies is caused by decomposition of chromogenic substrate by a specific Salmonella enzyme. Black colonies are generated by hydrogen sulphide producing Salmonella.

pre-enrichment w/BPW

35-37°C @20-24 hours

Incubation Time

41-43°C @20-24 hours

Interpretation

Yellow: motility of Salmonella
Black: hydrogen sulfide producing Salmonella
Green: decomposition of chromogenic substrate by a specific Salmonella enzyme

MicroVal

PACKAGES	PRODUCT NUMBER
40 plates	54058-0SL-0040
240 plates	54058-0SL-0240
1400 plates	54058-0SL-1400

Products

CompactDry TC (Total Count)

CompactDry TC is a medium containing nutrient standard agar and is used for total viable bacterial count. Bacterial colonies are coloured red due to the redox indicator tetrazolium salt.

PACKAGES	PRODUCT NUMBER
40 plates	54051-0TC-0040
240 plates	54051-0TC-0240
1400 plates	54051-0TC-1400

Incubation Temperature
35 ± 1 °C for raw meat 30 ± 1 °C for all other matrices
Incubation Time
48±3 hours
Interpretation
All colonies
● / ○

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MicroVal
NordVal

CompactDry TCR (Rapid Total Count)

CompactDry TCR is a rapid medium containing nutrient standard agar and is used for total viable bacterial count. Bacterial colonies are coloured red after 24 hours of incubation due to the redox indicator tetrazolium salt.

PACKAGES	PRODUCT NUMBER
40 plates	54069-TCR-0040
240 plates	54069-TCR-0240
1400 plates	54069-TCR-1400

Incubation Temperature
35 °C ± 1 °C (AOAC) 32 °C ± 1 °C (dairy products)
Incubation Time
24 ± 2 hours or 48 ± 3 hours
Interpretation
All colonies
● / ○

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CompactDry VP for *Vibrio parahaemolyticus*

CompactDry VP detects *Vibrio parahaemolyticus*, but also differentiates *Vibrio parahaemolyticus* from other *vibrio* species. The product contains a specific chromogenic substrate for *Vibrio parahaemolyticus* which develops blue/green or blue colonies, other vibrio species form white colonies.

PACKAGES	PRODUCT NUMBER
40 plates	06749-0VP-0040
240 plates	06749-0VP-0240

Incubation Temperature
35 ± 1 °C
Incubation Time
19 ± 1 hours
Interpretation
Blue / Blue green colonies
● / ●

Products

CompactDry X-SA for *Staphylococcus aureus*

CompactDry X-SA is a medium used for the detection of *Staphylococcus aureus* by selective growth and differentiation. *Staphylococcus aureus* forms light blue to blue colonies.

PACKAGES	PRODUCT NUMBER
40 plates	54057-XSA-0040
240 plates	54057-XSA-0240
1400 plates	54057-XSA-1400

Incubation Temperature
37 ± 1 °C
Incubation Time
24 ± 2 hours
Interpretation
Light blue / Blue colonies

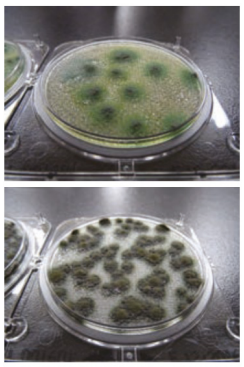
PERFORMANCE TESTED AOAC RESEARCH INSTITUTE

MicroVal
NordVal

CompactDry YM/YMR for yeast and mould

Incubation Temperature
25 +/- 1 °C
Incubation Time
YMR: 72 ± 3 hours YM: 3 – 7 days
Interpretation
Yeast : Blue or white **Mould:** Cottony colonies with mould colors

3D Growth of Molds



Photos Courtesy of NPO Center for Fungal Consultation Japan

PACKAGES	PRODUCT NUMBER
40 plates	54054-0YM-0040
240 plates	54054-0YM-0240
1400 plates	54054-0YM-1400

PACKAGES	PRODUCT NUMBER
40 plates	54063-YMR-0040
240 plates	54063-YMR-0240
1400 plates	54063-YMR-1400

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MicroVal
NordVal

CompactDry YM/YMR differentiates yeasts and mould through characteristic colour development and morphology. The medium contains the chromogenic enzyme substrate X-Phos which results in blue yeast colonies. Moulds form “cotton wool” colonies with a characteristic colour. Antibiotics inhibit the growth of bacteria. CompactDry YM/YMR facilitates very good 3-dimension growth of yeast and mould.

Products

CompactDry SWABS for surface testing

The ready-to-use CompactDry Swabs allow easy swabbing with the new design self-standing tube, pre-immersed swab in 1mL of buffer compatible with CompactDry plates. We provide a range of 4 different buffers to cover most applications.

Neutralising Rinse Solution
Neutralising Rinse Solution is a universal neutralising solution suitable for testing most disinfected surfaces within the food, cosmetic and pharmaceutical industries.

Phosphate Buffered Saline
Phosphate Buffered Saline is designed for environmental/surface sample collection for the food and beverage industry.

Letheen Broth
Letheen Broth is used to sample surfaces treated with quaternary ammonium-based disinfectants (neutralizing agent), also recommended by the FDA for use in the microbiological testing of cosmetics.

Buffer Peptone Water
Buffer Peptone Water is used for sampling previously cleaned surfaces specifically for the recovery of sub lethally damaged Salmonella species.

All of the swabs conform to national and international standards including ISO 18593. The volume of buffer in each swab allows full rehydration of the CompactDry plate.

BUFFER	PACKAGES	PRODUCT NUMBER
Neutralising Rinse Solution	500 units	450001-NRS-0500
Phosphate Buffered Saline	500 units	450002-PBS-0500
Letheen Broth	500 units	450003-LTE-0500
Buffer Peptone Water	500 units	450004-BPW-0500

PRODUCT NAME	TARGETS	PACKAGES	PRODUCT NUMBER
AQ	**Heterotrophic bacteria in water**	40 plates	54061-0AQ-0040
		240 plates	54061-0AQ-0240
		1400 plates	54061-0AQ-1400
BC	***Bacillus cereus***	40 plates	54068-0BC-0040
		240 plates	54068-0BC-0240
		1400 plates	54068-0BC-1400
CF	**Coliform**	40 plates	54053-0CF-0040
		240 plates	54053-0CF-0240
		1400 plates	54053-0CF-1400
CF-L	**Coliform (dairy)**	40 plates	54065-CFL-0040
		240 plates	54065-CFL-0240
EC	***E. coli* and coliform**	40 plates	54052-0EC-0040
		240 plates	54052-0EC-0240
		1400 plates	54052-0EC-1400
ECO	***E. coli***	40 plates	54064-ECO-0040
		240 plates	54064-ECO-0240
		1400 plates	54064-ECO-1400
ETB	**Enterobacteriacae**	40 plates	54055-ETB-0040
		240 plates	54055-ETB-0240
		1400 plates	54055-ETB-1400
ETC	**Enterococci**	40 plates	54056-ETC-0040
		240 plates	54056-ETC-0240
		1400 plates	54056-ETC-1400
LM	***Listeria monocytogenes***	40 plates	54067-0LM-0040
		240 plates	54067-0LM-0240
		1400 plates	54067-0LM-1400
LS	**Listeria species**	40 plates	54060-0LS-0040
		240 plates	54060-0LS-0240
		1400 plates	54060-0LS-1400
PA	***Pseudomonas aeruginosa***	40 plates	54062-0PA-0040
		240 plates	54062-0PA-0240
		1400 plates	54062-0PA-1400
SL	**Salmonella**	40 plates	54058-0SL-0040
		240 plates	54058-0SL-0240
		1400 plates	54058-0SL-1400
TC	**Total count**	40 plates	54051-0TC-0040
		240 plates	54051-0TC-0240
		1400 plates	54051-0TC-1400
TCR	**Rapid Total Count**	40 plates	54069-TCR-0040
		240 plates	54069-TCR-0240
		1400 plates	54069-TCR-1400
VP	***Vibrio parahaemolyticus***	40 plates	06749-0VP-0040
		240 plates	06749-0VP-0240

X-SA	***Staphylococcus aureus***	40 plates	54057-XSA-0040
		240 plates	54057-XSA-0240
		1400 plates	54057-XSA-1400
YM	**Yeast and mould**	40 plates	54054-0YM-0040
		240 plates	54054-0YM-0240
		1400 plates	54054-0YM-1400
YMR	**Rapid yeast and mould**	40 plates	54063-YMR-0040
		240 plates	54063-YMR-0240
		1400 plates	54063-YMR-1400

CompactDry® App Targeted Products

- CompactDry® TC (Total Viable Count)
- CompactDry® EC (*E.coli* / Coliforms)
- CompactDry® ECO (*E.coli*)
- CompactDry® CF (Coliforms)
- CompactDry® YM (Yeast / Mold)
- CompactDry® YMR (Yeast / Mold)

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Colony Counter Global Service

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BactLAB manual

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