

TECHNICAL DATA SHEET

CONTACT VRBL + NEUTRALIZERS

DETECTION AND ENUMERATION OF TOTAL AND FECAL COLIFORMS

1 INTENDED USE

Violet Red Bile Lactose agar is a selective media used for the detection and enumeration of coliforms and thermotolerant coliforms in food products. This medium is supplemented with neutralizers allowing its use to control critical points in industry (e.g.: protected areas, microbiological monitoring programs of surfaces and industrial environments).

2 PRINCIPLES

The media forms a convex meniscus that allows the direct application of the agar to the control areas, whether on walls, floors, utensils, or staff. The media contains several neutralizers that inhibit disinfectant residues that may be present on the surfaces to be monitored, in order to assess the contamination levels before and after disinfection of the food chain environment.

Neutralizers are selected to inactivate residues of disinfectants that may be present on surfaces, such as aldehydes and phenols, quaternary ammoniums, oxidizing compounds.

Lactose fermentation results in acidification, revealed by the red colour of the pH indicator (neutral red), and by the precipitation of bile acids around the colonies.

The simultaneous presence of crystal violet and bile salts ensures the inhibition of Gram-positive bacteria.

3 TYPICAL COMPOSITION

The composition can be adjusted to obtain optimal performance.

For 1 liter of media, **with neutralizers**:

- Peptic meat peptone	7,0 g
- Autolytic yeast extract	3,0 g
- Lactose	10,0 g
- Bile salts	1,5 g
- Sodium chloride	5,0 g
- Neutral red	30,0 mg
- Crystal violet	2,0 mg
- Neutralizers mixture	7.2g
- Bacteriological agar	12,0 g

pH of ready-to-use media at 25 °C: 7,4 ± 0,2.

4 INSTRUCTIONS FOR USE

- Use the culture media at room temperature and on a dry surface.
- Open the plate and apply the agar directly to the surface to be tested. Make sure to maintain uniform pressure over time (e.g. 500g for 10s according to NF EN ISO 18593). Then close the plate. Keep the agar at 1 to 8°C in a suitable transport container and incubate within 48 hours.
- Clean the sample surface to remove any traces of nutrients, moisture and chemical or physical elements resulting from the application of the agar.
- Incubate for 24 - 30 h at 37 or 44°C according to used standard.

✓ **Incubation :**
24-30h, 37 or 44°C

NOTE :

It is recommended that a control of the efficiency of the mixture of neutralizers present in the media be carried out in relation to the disinfectant product used, given the diversity of antiseptics existing on the market.

5 RESULTS

Coliforms present pink-red to purplish colonies of 0.5 mm or more in diameter and sometimes are surrounded by a reddish zone due to bile precipitation.

See **ANNEX 1** : PHOTO SUPPORT.

Proceed with the counting of the colonies. The grid on the bottom of the plates makes counting easier.

Divide the number of characteristic colonies by the area of the sampled surface and deduce the number of colony-forming units (CFU) per square centimeter of surface.

6 QUALITY CONTROL

Typical culture response after 24 hours of incubation at 30°C (NF EN ISO 11133):

Microorganisms		Growth (Productivity Ratio : P_R)	Characteristics
<i>Escherichia coli</i>	WDCM 00013	$P_R \geq 50 \%$	Reddish-purple colonies
<i>Pseudomonas aeruginosa</i>	WDCM 00025		Colorless to pinkish beige colonies
<i>Enterococcus faecalis</i>	WDCM 00087	Inhibited	-

7 STORAGE / SHELF LIFE

Ready-to-use media: 2-8 °C

Expiry dates are indicated on the labels.

Sealed off bags can be stored for 10 days at 25°C.

8 PACKAGING

Pre-poured media in plates (Ø 65 mm):

20 plates BM20908

9 BIBLIOGRAPHY

NF ISO 4832. July 2006. Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliforms - Colony count technique

NF V08-050. April 2009. Microbiology of food and animal feeding stuffs - Enumeration of presumptive coliforms by colony-count technique at 30 °C

NF V08-060. April 2009. Microbiology of food and animal feeding stuffs - Enumeration of thermotolerant coliforms by colony-count technique at 44 °C.

NF EN ISO 11133. July 2014. Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media.

NF EN ISO 18593. July 2018. Microbiology of the food chain - Horizontal methods for sampling techniques from surfaces using contact plates and swabs.

10 OTHER INFORMATION

The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

Code document : Contact VRBL+ Neutralizers_FR_V3.
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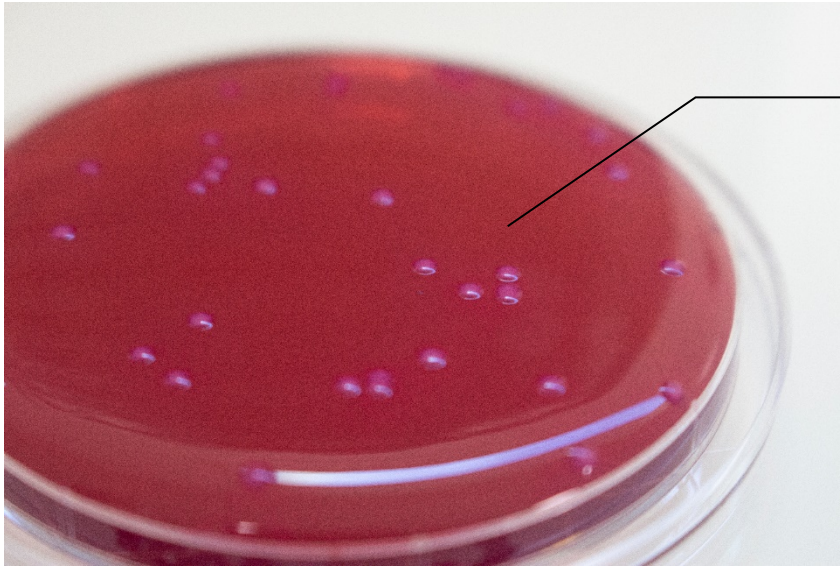
ANNEX 1 : PHOTO SUPPORT

CONTACT VRBL + NEUTRALIZERS

Detection and enumeration of coliforms.

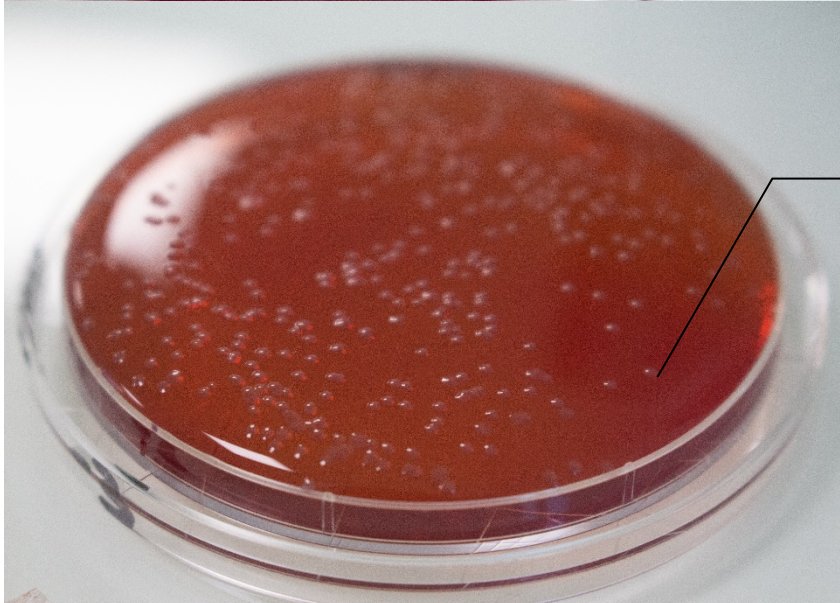
Reading :

Growth obtained after 24 hours of incubation at 30°C



Citrobacter freundii

Characteristic colony:
Pink-red to purplish color



Pseudomonas aeruginosa

Non characteristic colony of
lactose-negative enterobacteria:
colorless to pinkish beige