Laboratorios MICROKIT
¡Pasión por la creatividad!

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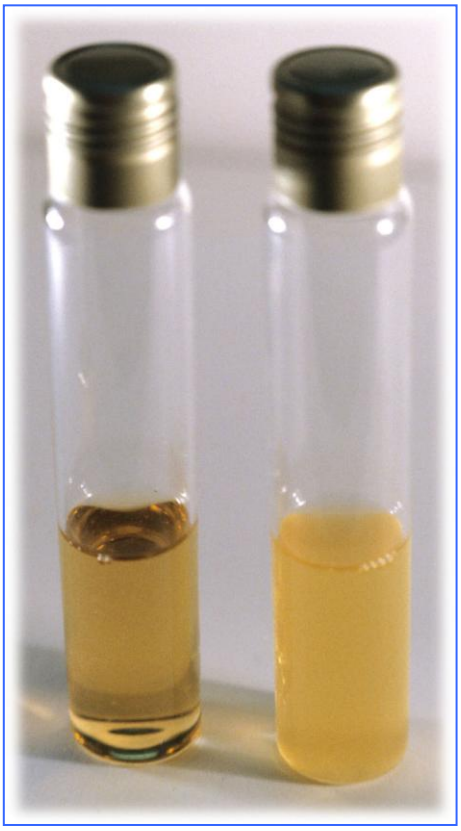
BUFFERED PEPTONE NEUTRALIZING WATER

Substitute for classic Buffered Peptone Water in foods containing garlic, paprika, pepper, mustard, aromatics, fats or other natural or artificial preservatives / inhibitors, which can mask the presence of pathogens: MINIMIZES THE MATRIX EFFECT. It even inactivates the metabolites of the antagonistic companion microbiota, which can mask the growth of the target microorganism in the classic Buffered Peptone Water. Quick alert for commercial sterility control.



COMPOSITION

Bacteriological polypeptone	15.0 g
Yeast Extract	5.0 g
Sodium chloride	7.5 g
Disodium phosphate	4.5 g
Monopotassium phosphate	0.75 g
Polysorbate Tween 80	5.0 g
Inactivator Mix spread spectrum*	6.3g

(Formula in g / l)
Adjust to pH: 7.3 ± 0.2

This medium, depending on the distilled water used, may require up to 7 ml of 1 N NaOH for each liter of final medium

(* Synergistic mixture of Lecithin, Sodium thioglycollate, Sodium thiosulfate, Sodium bi-sulfite, Histidine)

EXCLUSIVE USE IN LABORATORY.
SHAKE WELL BEFORE USE.
KEEP WELL CLOSED, IN A DRY, FRESH AND DARK PLACE.
CODE: DMT011

PREPARATION

Dissolve 44 g of medium in 1 l of distilled water. Dispense in tubes or bottles. Autoclave at 121ºC for 15 minutes. The final color of the medium is straw-amber, with hydrogen sulfide odor. The powder is unctuous because it includes 5 ml / l of polysorbate Tween 80, which allows to obtain better inactivating effects of the inhibitors even in fatty products. It is essential to adjust the pH to achieve the necessary effectiveness.

MEDIA QUALITY CONTROL

Made in our laboratory. It is prudent to repeat it in your laboratory whenever conditions change (more than 3 months without use, after disinfecting the laboratory, after keeping at a high temperature, when it acquires strange aspects even though the theoretical expiration date on the label has not arrived, ...)
DEHYDRATED: Fine powder, cream PREPARED: Sterile, straw-amber
PERFORMANCE ASSESSMENT ISO / TS 11133-2 (Applying the ISO 6579: 2003 method, or that of the updated MICROKIT Manual), 18 h at 37 ºC:
Salmonella abony WDCM00029, Excellent, After 45 minutes at 25 ° C, reseeding in TSA and obtaining> 50-150% of colonies with respect to the number of cfu inoculated. After 18 h at 37 ° C, slight to high turbidity.
E. coli WDCM00013, Excellent, After 18 h at 37 ° C, slight to high turbidity.
Staphylococcus aureus WDCM00033, Excellent, After 18 h at 37 ° C, slight to high turbidity.
Pseudomonas aeruginosa WDCM00026, Excellent.
Bacillus subtilis WDCM00003, Excellent.
Candida albicans WDCM00054, Excellent.

PRESENTATION: DEHYDRATED MEDIUM (DMT011), 50 ml prepared bottles (RPL112), 50 ml prepared bottles with glass beads to disperse fatty or lumpy products (RPL114), 225 ml prepared bottles with glass beads to disperse greasy or lumpy products (RPL235), 9 ml prepared tubes (TPL110).

HOW TO USE AND INTERPRETATION

Add 1-25 grams of sample in 10-225 ml of medium (5 g in the 50 ml flasks). Shake (the glass beads in the bottles save the use of a homogenizer in soft samples, sauces ...) and let it rest to act on the inactivation of inhibitory agents present in the sample, for 20-30 minutes at room temperature. If necessary, make the subsequent decimal dilutions in tubes of this same medium.
CAUTION: In matrices whose preservative agent is salting, brine or syrup, or in those with a high proportion of salts or sugars, the stock solution may be required to be 1: 100 instead of the classic 1:10 used in other foods.
To perform counts, pour plate 1 ml of each dilution in the appropriate agars, without prior enrichment. We recommend MICROKIT's chromogenic PCA (BCD510) as for the same price as classic PCA, colonies (red) are distinguished from sample particles, bubbles and other artifacts.
For revitalizing enrichment, incubate 18 h at 35-37 ° C before moving to secondary selective enrichments or before streaking onto selective plates.
For commercial sterility control, incubate 18-72 h at 35-37 ° C and streak the surface of a plate of a general count agar, for example, PCA-chromogenic (BCD510), although the increased turbidity of the broth is a rapid alert for microbial contamination.

NOTE: Given the intercomparison results of food microbiology foodstuffs from the last decade, we recommend this neutralizing buffered peptone broth, which provides such excellent results, as the usual substitute for the classic buffered peptone water to inactivate the preservatives that most foods happen to include. It has also been internally validated by the pair method and with quantitative reference strains in the 5 microbiological parameters of greatest importance in food microbiology: *Salmonella enteritidis, Staphylococcus aureus, E.coli, Clostridium perfringens* and *Listeria monocytogenes*.

ATTENTION, QUICK METHOD FOR SALMONELLA: Combining this advance with an accelerated mixed enrichment (mixing the revitalizing and neutralizing pre-enrichment media: 225 ml Buffered Peptone Neutralizing Water from MICROKIT DMT011 + selective enrichment 18 ml concentrated SS Broth [x5] from MICROKIT DMT067) and incubating MICROKIT DMT067 together in the previous 18 hours; it allows the reliable detection of Salmonella in just 36 h from the initial sample. Therefore, this shortened method is the tool that all food product factories were waiting for to be able to release batches thanks to the early detection of this pathogen, which until now delayed the overall result of the microbiological laboratory to 3-5 days or expensive / automated methods.

BIBLIOGRAPHY

Sanchis, J. 09-2014: XIX National Congress of Food Microbiology. Simultaneous double enrichment for Salmonella detection. J. Sanchís. MICROKIT.

The end user is solely responsible for the destruction of the organisms that have developed, according to current environmental legislation. Autoclave before throwing away.

Medium designed and manufactured in the UE by MICROKIT since 2008, under ISO 9001, ISO 11133 and GMPs, revised in April-2020