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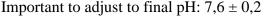
MUGPLUS CCCNT MBS AIRESANO

# LPT NEUTRALIZING BROTH COLOURLESS

Broth for dilutions, neutralization and enrichment with maximun recovery. Emulsionates fat products and neutralizes ALL KINDS of legal ACTUAL preservatives. More complete medium for cosmetics than Eugon or D/E.

### **COMPOSITION**

Triptone	20,00 g/L
Yeast extract	10,00 g/L
Sodium Chloride	10,00 g/L
Sodium Tioglicolate	2,00  g/L
Sodium Tiosulphate	2,00 g/L
Sodium Bi-sulphite	4,80 g/L
Histidine	2,00 g/L
Lecitine	1,40 g/L
Dopping factor *	c.s.
Important to adjust to final nH: 7.6 + 0	



<sup>\*</sup> Dopping factor discovered by MICROKIT to accelerate the growth of fungal eukaryotes, such as *Candida albicans*, and *Aspergillus spp*, that grow too slowly in the media indicated in ISO 21148.

## **PREPARATION**

Dissolve 26.1 g in general cosmetic (and [x 2], till 52.2 g

although broth was cloudy) in 1 l of bidestilated water wich contains 12,5 mi or poisorbate-Tween 80 pre-heated. If you wish to increase the neutralizing power to highest levels, you need to ad to these 52.2 g/l, a maximun of: 1.6 g/l of Lecitine, 25 ml/l of Polisorbate-Tween 80 and 5.4 g/l of complet mix supplement SMT002 (1 g/l of Histidine, 1 g/l of Sodium Tioglicolate, 2.4 g/l of Sodium Bisulphite and 1 g/l od Sodium Thiosulphate). Shake it heating till boiling. Autoclave for 15 minutes at 121°C. Don't overheat. A very slight turbidity is normal. Tubes with a dense bottom are acceptable meanwhile it can mix by strong shaking and slow heating. Do nor refrigerate nor freeze (best store at 15-21°C).

For exclusive use in LABORATORY. Shake bottle before use it, to homogenize the denser components, which could have migrated to the bottom. Keep bottle in a dry, fresh and dark place. Dehydrated code: DMT217, supplement polisorbate-Tween 80 code: SDA071.

PRESENTATION: DEHYDRATED MEDIUM. PREPARED 9 ml TUBES, 90 ml BOTLES, 225 ml BOTTLES, all of it WITH or Without Glass Pearls.

#### **OUALITY CONTROL**

Made in our LABORATORY: it is prudent to repeat it in your LABORATORY always conditions change (more than three months without using it, after disinfect the LABORATORY, after keep it at high temperature, when it takes a strange aspect although the expire date is correct,...)

DEHIDRATED: Thick powder, Cream

PREPARED: Sterile, amber, with bottom precipitated if cold

GROWING CONTROL 24-72 h to 37°C aprox, or at room temperature (21-28°C aprox):

Escherichia coli MKTA 25922, excellent

Pseudomonas aeruginosa MKTA 9027, excellent

Burkholderia cepacia MKTN 10743, excellent

Staphylococcus aureus MKTA 6538P, excellent

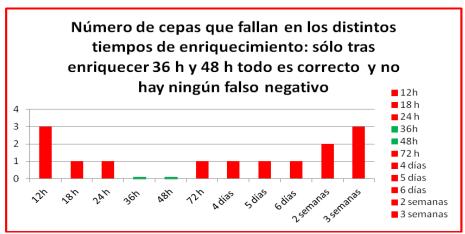
Candida albicans MKTN 3255, good

NOTE: Medium recommended for first solution, decimal dilutions and also for pre-enrichment in samples which components could interfere with flora. Composition of medium allow insure a good mix of sample. It emulsion fats and inactive all derivated of amonium cuaternarium (unic preservatives which inactivate classic medium Letheen with Lecitine and Tween), and it cause a total inactivation of the rest of actual legal preservatives of cosmetics, included parabens and isotiazolinona, furthermore the phenolic compounds: phenoxietanol, pheniletanol, anilids..., quaternary amonium, cationic surfactants, aldehides, phormaldehides, glutaraldehide, phormol compounds, oxidant compounds, peroxids, halogens (fluorine, chlorine, bromine, iodine...), bleach, imidazoles, clorhexidine, biguanide, metalic salts (Cu, Zn, Hg), organomercurial compounds... Furthermore it inactivates microbial metabolites generated in his growing which can disguise the growing of diana microrganisms in others broths. In several intercolaborative ("Comparative study among differents general culture broths". SANCHIS, J. XI National conference of food microbiology.Pamplona, 9/1998) and intercomparative (SEILAPARFUM) studies carry out to compare all general broths, this is the first one which recover more total flora and more patogens, even better than Eugon LT100 of ISO 21148. At the intercomparative services SEILAPARFUM is the best medium for all kind of analisys (dilutions for enumerations and pre-enrichment to look for patogens). So it is validated for us as the best formulation.

## HOW TO USE AND INTERPRETATION

In cosmetics is better to add 10 g to 90 ml, because in so much inhibitory products, classical 1 g to 9 ml is an unrepresentative sample amount. Shake bottles and leave to room temperature for 20-30 minutes, to carry out for decimals dilutions and enumerations, add 1 ml in apropiate agars (LPT Agar or TSA, Sabouraud Caf.Agar or Rose Bengal Caf.Agar...) without enrichment. To investigate patogens, enrich incubating the rest of inactivated bottle sample at 30-35 °C for 18-48 h and strike out 0.1 ml in the surface on selective agars (Cetrimide, BCPT, Cromokit X-Staph or Mannitol –never Baird Parker, invalidated in cosmetics-, Biggy, MugPlus...) and furthermore in LPT Agar. This saves the use of TSB and Lactose Broth of classical protocols, and so you are enriching 10 g of direct inactivated sample; so if there is an absence of pathogens in 10 g, more common reason is there in 1 g.

LAST NOTE: The growth-plateau-lethargy curve of microorganisms has been well studied in this broth: The best enrichment time to avoid false negative pathogens is 36-48 h. The strains that cause the most cases of false negatives if enriched for less than 36 h Salmonella typhimurium, followed by Candida albicans Burkholderia cepacia. The strain that causes the



most examples of false negatives when enriching for a longer time (3 or more days) is *Pseudomonas aeruginosa*, (two different strains and even in open jars, as it is "super-aerophilic"), followed by *E.coli* and *St.aureus* (3 different strains). The conclusions of this study CANNOT be extrapolated to the behavior of other broths, but surely are similar.

Final user is the only responsible of destruction of grown microrganism according the current environmental legislation.

Autoclave before throw to the rubbish.

Last revision made on April 2024