Reference: 301353ZA **Technical Data Sheet**

Product: # Tributyrin Agar

Specification

Medium for detection and enumeration of lipolytic microorganisms in food stuffs and other materials

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottle Bottle 125 ml with: 100 ± 3 ml	1 box with 10 bottles 125 ml. Plastic screw inner cap.	12 months	8-25 ºC

Composition

Composition (g/l):
Peptone from meat.....2.5
Peptone from casein..... 2.5
Yeast extract..... 3.0
Agar.....15.0
Glycerol Tributyrate.....10.0 ml

Description /Technique

Description:
Tributyrin agar is a medium for the detection and enumeration of bacteria and fungal lipolytic, specially in dairy products, but can also be used for verification of lipolysis in staphylococci, pseudomonas, clostridia and marine bacteria.
This culture medium is a nutrient base which adds the fatty substrate glyceryl tributyrate (tributyrin). This substrate can be replaced by others materials as triolein, trilinolein or the same or butter. However the simple glyceride derivatives have the advantage of giving more rapid and most organisms that attack on tributyrin also make butter.

Technique:
Melt the bottle in microwave or water bath at 100 ° C. The culture medium is carefully homogenized to obtain a homogeneous emulsion and immediately poured onto plates.
Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Spread the plates by streaking methodology, by spiral method or by pur-plate method.
Incubate the plates right side up aerobically at 30-35 for up to 48-72h.
After incubation, enumerate all the colonies that have appeared onto the surface of the agar or into teh medium, surrounded by clear zones in the otherwise turbid culture medium due to lypolytic activity of microorganisms.
Each laboratory must evaluate the results according to their specifications.
Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

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Quality control

Physical/Chemical control

Color : yellow pH: 7.5 ± 0.2 at 25ºC

Microbiological control

Melting - pour plates - inoculation Practical range 100 ± 20 CFU. min. 50 CFU (productivity) / 10^4-10^6 CFU (selectivity)

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 30-35 ºC. Reading at 24-48 until 72 h

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Good- lypolytic activity (-)
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good- lypolytic activity (+)
Ps. aeruginosa ATCC® 27853, WDCM 00025	Good- lypolytic activity (+)

Sterility Control

Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

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