



User manual

Aseptic Validation Medium – AVM[®] Powder (Art.No. 2.04704.872)

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1. Information

Powder for the production of a liquid medium for the trace detection of beverage-spoiling microorganisms e.g. yeasts, bacteria and moulds in the validation process of aseptic filling facilities.

The Aseptic Validation Medium (AVM[®]) powder is an ready-to-use powder for production of AVM[®]-Broth (liquid Linden Grain medium) for qualitative detection of beverage spoiling microorganisms as part of validation of aseptic filling facilities under standardized production conditions. It is used for validation of aseptic filling facilities and/or for the regular re-certification (once or twice a year), after maintenance or modification of aseptic filling lines. Furthermore it is used in trouble-shooting processes and risk management. The product is not randomly tested for presence of microorganisms and the result is not statistically projected. Instead the **entire filling process is tested**. This is done so that even trace contaminations and spreading infections are detected. AVM[®] contains an optimised nutrient composition and buffering substances for the rapid and targeted detection of beverage spoiling microorganisms in the entire filling line.

AVM[®] is an important tool for certification complying with the new ISO 22000 safety management standards, the preventative risk management (HACCP system) and accredited standards such as IFS and BRC.

2. Handling

Application

Dilute 29,6 kg of AVM[®]-Powder to a total sum of 1000 L with sterile water and adjust pH value by adding either

- 1M HCl or citric acid for pH<4.4, or
- 1M NaOH for pH>4.4

while stirring the mixture.

The pH value can be individually set depending on the desired selectivity and the sensitivity of the products to be filled. Based on Döhler experience an optimum pH value of 4.0-6.5 is recommended.

It is recommended to autoclave the dilution for 15 min. at 121°C/250°F after adjustment of the pH. If not possible please treat the dilution according to the technical periphery conditions e.g. by flash pasteurizer at the maximum level.

To specially facilitate the growth of aerobic microorganisms it is recommended to fill the bottles or cartons to only approx. 80-90%.



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Incubation

Incubate all bottles and cartons at a temperature between 26-30°C/78-86°F for 5 to 7 days.

Evaluation

A re-contamination by beverage spoiling microorganisms such as yeast, moulds, lactic and acetic acid bacteria during the aseptic filling process can be detected rapidly and reliably through a clear cloudiness of the broth in the bottle.

As to how many filled units may detect a contamination in order to still meet the validation demand, has to be negotiated with the vendor companies of the filling machinery. As a practical recommendation and guideline 1 spoiled unit of 10.000 is allowed.

3. Storage and Packaging Information

Packaging and Content

unit 20 kg bucket

Storage

Store at 4-8°C/40-46°F according to product specification.
Store under dry and dark conditions. Do not freeze product.

Waste Disposal

No dangerous good.
No hazardous material.
Please consider your local waste regulations.
Product can be disposed of with normal laboratory waste.
Product can be disposed of down the drain.

Warnings

Please do not freeze product. We recommend further processing of the product within 8 h.
Maximum durability at 4-8°C/40-46°F for 3 days.



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4. Related Products

Investigation material	Relevant target microorganisms	Product	Format	Description	Packaging	pH	Incubation T[°C]	Item no.
Productions and filling facilities Validation of aseptic filling facilities	Beverage-specific microorganisms Yeasts Bacteria Moulds	AVM®	Broth	Liquid Linden Grain medium for qualitative detection as part of validation of aseptic filling facilities	min. 3 to (tank)	4.0 – 4.4	26-30	2.04705.050
		AVM®	Powder	Powder for production of AVM®-broth – liquid Linden Grain medium	20 kg (bucket)	4.0 – 6.5		2.04704.872
		AVM®	Concentrated Broth	Concentrated liquid Linden Grain medium for production of AVM®-broth	min. 3 to (container)	max. 5.0		2.04755.521
Weak point analysis and analysis of weak spots	Biofilm-specific indicator microorganisms	NBB®-B-AM	Broth	Culture medium for qualitative detection of indicator microorganisms using swab sampling with sterile swabs as part of microbiological facility monitoring	9 x 250 mL (glass bottle)	5.6-5.9	25-29	2.04706.782