17170 AEA Sporulation Broth, Base, modified (Modified AEA Sporulation Broth, Base)

For early sporulation of *Clostridium perfringens* from foods.

Composition:

Ingredients	Grams/Litre
Biopeptone	10.0
Yeast extract	10.0
Disodium phosphate	4.36
Monopotassium phosphate	0.25
Ammonium acetate	1.5
Magnesium sulfate x $7H_2O$	0.2
Final pH 7.8 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Appearance: Faintly beige coloured, homogeneous, free flowing powder.
Gelling: Firm
Color and Clarity: Yellow coloured, clear to slightly opalescent gel forms in petri plates.

Directions:
Suspend 26.31 g in 1 litre distilled water. Dispense the medium in 15 ml amounts in screw capped tubes and sterilize by autoclaving at 121°C for 15 minutes. Cool to 45-50°C and add 0.6 ml of filter sterilized 10% raffinose and 0.2 ml each of sterile 0.66 M sodium carbonate and 0.32% cobalt chloride drop wise to each 15 ml base medium in the tubes. Just before use, steam the medium for 10 minutes and after cooling, add 0.2 ml of filter sterilized (freshly prepared) 1.5% sodium ascorbate to each tube of the medium.

4	g/l	raffinose	(Cat. No. 83400)
930	mg/l	sodium carbonate	(Cat. No. 85195)
42.6	mg/l	cobalt chloride	(Cat. No. 60818)
20	mg/l	sodium ascorbate	(Cat. No. 11140)

Principle and Interpretation:
Modified AEA Sporulation Medium Base is prepared as described in APHA for early sporulation of *Clostridium perfringens* from foods [1].
High salt content of the medium and especially magnesium sulphate aid in sporulation of the organism. Raffinose is the fermentable carbohydrate. It is fermented by *Clostridium perfringens* but not culturally similar species, within 3 days to produce acid. Biopeptone and yeast extract supply the essential nitrogenous nutrients and vitamin B complex for *Clostridium perfringens.* Sodium ascorbate acts as a vitamin C source.

Cultural characteristics after 48-72 hours at 35-37°C.

Organisms (ATCC)	Growth	Raffinose fermentation
Clostridium perfringens (12924)	+++	+
Clostridium sporongens (11437)	+++	-

References:

1. Vanderzant C and Splittstoesser D (eds), Compendium of Methods for the Microbiological Examination of Foods, 3rd ed, APHA, Washington D C (1992)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.