Perfringens HiVeg™ Agar Base (O.P.S.P.) MV579

Perfringens HiVeg Agar Base(O.P.S.P.) with selective supplements is used as a selective medium for isolation and enumeration of *Clostridium perfringens* in foods.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	15.0
Papaic digest of soyabean meal	5.0
Yeast extract	5.0
HiVeg extract No. 2	7.0
Ferric ammonium citrate	1.0
Sodium metabisulphite	1.0
Tris buffer	1.5
Agar	15.0

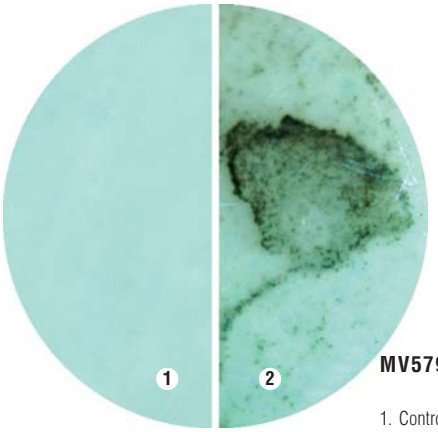
Final pH (at 25°C) 7.3 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 25.25 grams in 500 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C. Aseptically add rehydrated contents of 1 vial of Perfringens Supplement I (FD011) and Perfringens Supplement II (FD012) each. Mix well before pouring into sterile petriplates.

Principle and Interpretation :

Perfringens HiVeg Agar Base is prepared by using HiVeg hydrolysate and HiVeg extract No.2 which are free from BSE/TSE risks. This medium is the modification of Perfringens Agar Base (O.P.S.P.) which is based on the formula developed by Handford(1) and is used as a selective medium for isolation and enumeration of *Clostridium perfringens* in foods (2).
HiVeg hydrolysate, yeast extract, papaic digest of soyabean meal and HiVeg extract No.2 supply most of the essential nitrogenous nutrients, vitamin B complex and trace ingredients for the growth of *Clostridium perfringens*. Sodium metabisulphite and ferric ammonium citrate are used as indicators of sulphite reduction by *Clostridium perfringens* which produces black colonies. The production of black colonies on this medium is a presumptive identification of *Clostridium perfringens*, further identification tests must be carried out. Tris buffer helps in maintaining buffering action. The antibiotics Sulphadiazine, Bleandomycin and Polymyxin B make the medium highly selective inhibiting sulphite reducing bacteria other than *Clostridium perfringens* such as *Salmonellae, Bacillus* species, *Proteus* species, *Staphylococci* etc. Occassional strains of *Enterococci* will grow on this medium as white colonies, easily distinguished from the large black colonies of *Clostridium perfringens*.



MV579 Perfringens HiVeg Agar Base (O.P.S.P)
1. Control
2. *Clostridium perfringens*

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV579 HiVeg hydrolysate HiVeg extract No. 2	**M579** Casein enzymic hydrolysate Liver extract

Recommended for	:	Isolation and enumeration of *Clostridium perfringens* in foods
Reconstitution	:	50.5 g/l
Quantity on preparation (500g)	:	9.90 L
pH (25°C)	:	7.3 ± 0.2
Supplement	:	Perfringens Supplement I (FD011), Perfringens Supplement II (FD012).
Sterilization	:	121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Quality Control :

Appearance of powder
Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.5% Agar gel.
Colour and Clarity
Amber coloured, clear to slightly opalescent gel forms in petri plates.
Reaction
Reaction of 5.05% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours with added Perfringens Supplement I (FD011) and Perfringens Supplement II (FD012).

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
Bacillus subtilis (6633)	10^2-10^3	inhibited	0%	-
Clostridium bifermentans	10^2-10^3	inhibited	0%	-
Clostridium butyricum (9690)	10^2-10^3	inhibited	0%	-
Clostridium perfringens (12924)	10^2-10^3	luxuriant	>70%	black
Enterococcus faecalis (29212)	10^2-10^3	none-poor	<20%	white, if any
Proteus vulgaris (13315)	10^2-10^3	inhibited	0%	-
Salmonella serotype Typhi (6539)	10^2-10^3	inhibited	0%	-
Staphylococcus aureus (25923)	10^2-10^3	inhibited	0%	-

References :

1. Handford P.M., 1974, J. Appl. Bact., 37 : 559.
2. Hauschild A.H.W. et al, 1977, ICMSF Methods Studies VIII, Can. J. Microbiol., 23:884.

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.