K.R.A.N.E.P. HiVeg™ Agar Base MV583

K.R.A.N.E.P. HiVeg Agar Base is used for estimation of total *Staphylococcal* count from food stuffs.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	5.0
Sodium chloride	5.0
Yeast extract	1.5
HiVeg extract	1.5
Potassium thiocyanate	25.5
Sodium pyruvate	8.2
Mannitol	5.1
Lithium chloride	5.1
Sodium azide	0.05
Cycloheximide	0.041
Agar	15.0

Final pH (at 25°C) 6.8 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 72 grams in 900 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 and aseptically add sterile 100 ml of Egg Yolk Emulsion (FD045). Mix well before pouring.

Warning: Cycloheximide is very toxic and Lithium chloride is harmful. Avoid skin contact or aerosol formation and inhalation. As sodium azide has a tendency to form explosive metal azides with plumbing materials use enough water to flush off the disposables.

Principle and Interpretation :

K.R.A.N.E.P. HiVeg Agar Base is prepared by using HiVeg peptone and HiVeg extract in place of peptic digest of animal tissue and beef extract respectively which makes the medium free of BSE/TSE risks. K.R.A.N.E.P. HiVeg Agar Base is labelled with initial letters of its main diagnostic, selective and stimulatory agents like Kalium-Rhodanid-Actidione-Natriumazid-Eigelb-Pyruvate. K.R.A.N.E.P. HiVeg Agar Base is the modification of media recommended by Sinnell and Baumgart for the selective enumeration of the total *Staphylococcal* count from foodstuffs (1). This medium like the conventional medium is made selective by the addition of selective and diagnostic agents. Skorkovsky (2) added potassium thiocyanate and mannitol, Sinnell and Baumgart (3) used sodium azide and cycloheximide, Baird-Parker (4) used sodium pyruvate as a selective growth stimulant and Gillespie and Alder (5) added egg yolk as a diagnostic agent.

HiVeg peptone, yeast extract and HiVeg extract supplies essential growth nutrients. Cycloheximide inhibits most of the yeasts and moulds. Sodium azide inhibits bacterial contaminants such as (6) *Enterococci, Sarcina* and *Proteus* species (4, 7).

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV583 HiVeg peptone HiVeg extract	**M583** Peptic digest of animal tissue Beef extract

Recommended for	:	Estimation of total *Staphylococcal* count from food stuffs.
Reconstitution	:	72.0 g/l
Quantity on preparation (100g):		1.38 L
pH (25°C)	:	6.8 ± 0.2
Supplement	:	Egg Yolk Emulsion (FD045)
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

Light yellow coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 7.2% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours with added sterile Egg Yolk Emulsion(FD045)

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colony characteristics	Lecithinase
Staphylococcus aureus (25923)	10^2-10^3	luxuriant	>50%	golden shiny	+
Staphylococcus epidermidis (12228)	10^2-10^3	luxuriant	>50%	white shiny	-

Key : + = opalescent zone around colony.

References :

1. Sinell H.J.and Baumgart J. 1967, Zbl. Bakt. I. Abt. Orig., 204:248.
2. Skorkovsky B., 1963, Zent. Bl. Bakt. I. Abt., Orig., 558.
3. Sinnell H. J. and Baumgart J., 1965, Zent. Bl. Bakt. I. Abt. Orig., 197:447.
4. Baird - Parker A.C., 1962, J. Appl. Bact., 25:12.
5. Gillespie W.A. and Alder V.G., 1952, J. Pathol. Bacteriol., 64:187.
6. Appleman M. D., 1963, J. Appl. Bact. 26, ii, Society for Applied Bacteriology : Meetings.
7. Crisley F.D., Peeler J.T. and Angelotti R., 1965, J. Appl. Microbiol., 13:140.