

# TMV 1440 – TRYPTONE SOYA AGAR (VEG.)

### **INTENDED USE**

For enrichment and isolation of various fastidious microorganisms with or without blood.

### **PRODUCT SUMMARY AND EXPLANATION**

This medium is prepared by completely replacing animal based peptones with vegetable peptones that are free of BSE/TSE risks Tryptone Soya Agar is a widely used medium, which supports the growth of wide variety of organisms even that of fastidious ones such as *Neisseria*, *Listeria*, and *Brucella* etc. The medium with addition of blood provides perfectly defined haemolysis zones, while preventing the lysis of erythrocytes due to its sodium chloride content. It has been frequently used in the health industry to produce antigens, toxins etc. It's simple and inhibitor-free composition makes it suitable for the detection of antimicrobial agents in the food and other products. Tryptone Soya Agar is recommended by various pharmacopoeias as sterility testing medium. Tryptone Soya Agar conforms as per USP and is used in microbial limit test and antimicrobial preservative - effective test. Gunn et al used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5%v/v blood.

### COMPOSITION

Ingredients	Gms / Ltr		
Veg hydrolysate	15.000		
Papaic digest of soyabean meal	5.000		
Sodium chloride	5.000		
Agar	15.000		

### PRINCIPLE

Soyabean Agar Veg. is the modification of Soyabean Casein Digest Agar with replacement of Casein enzymic hydrolysate by Veg hydrolysate. Soyabean Veg Agar can be used as a general purpose medium used for multiple applications e.g. as a blood culture medium, as maintenance medium for culture collections (including maintenance of stock cultures), for testing bacterial contaminants and isolating fastidious organisms on enrichment with blood. It serves as a nutritive base to which variety of supplements can be added. On supplementation with blood it can be also used to determine haemolytic bacteria. This medium can also be used for sensitivity testing by tube dilution method of anitmicrobial agents, plate counting, against animal based Soyabean Casein Digest Agar. This medium is employed for cultivation and isolation of fastidious and non-fastidious microorganisms. Veg hydrolysate and Papaic digest of soyabean meal makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance in the medium.

#### **INSTRUCTION FOR USE**

- Suspend 40 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- If desired, aseptically add 5% v/v defibrinated blood in previously cooled medium to 45-50°C for cultivation.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS







Appearance of Powder	: Light yellow coloured may have slightly greenish tinge, homogeneous, free flowing powder.
Appearance of prepared medium	: Basal, medium yields light yellow coloured, clear to slightly opalescent gel in petri plates. With the addition of blood, cherry red coloured opaque gel forms
pH (at 25°C)	in petri plates. : 7.3 ± 0.2

# INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculu m (CFU)	Growth	Growth with blood	Recovery	Haemolysis	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Luxuriant	Luxuriant	>70%	None	35 - 37°C	18-48 Hours
Bacteroides vulgatus	8482	50-100	Luxuriant	Luxuriant	>70%	None	35 - 37°C	18-48 Hours
Candida albicans	1023 1	50-100	Luxuriant	Luxuriant	>70%	None	25-30°C	2-7 days
Neisseria meningitidis	1309 0	50-100	Good	Luxuriant	>70%	None	35 - 37°C	18-48 Hours
Staphylococcus aureus	2592 3	50-100	Luxuriant	Luxuriant	>70%	Beta	35 - 37°C	18-48 Hours
Streptococcus pyogenes	1961 5	50-100	Good- luxuriant	Luxuriant	>70%	Beta	35 - 37°C	18-48 Hours

# PACKAGING:

In pack size of 100 gm and 500 gm bottles.

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

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# DISPOSAL

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.

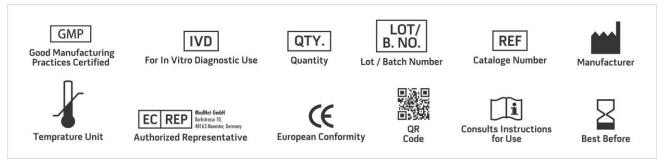


# **PRODUCT DATA SHEET**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

### REFERENCES

1. MacFaddin 1985, Media for isolation-cultivation-identification-maintenance medical bacteria Vol, I, Williams, & Wilkins, Baltimore, MD. 2. Forbes BA, Sahm DF, Weissfeld AS, 2002, Bailey and Scott's Diagnostic Microbiology, 11th ed., The C.V. Mosby Co., St. Louis.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019

