# TMV 395 - VOGEL JOHNSON AGAR BASE W/O TELLURITE (V. J. AGAR BASE) (VEG.)

## INTENDED USE

For selective isolation of coagulase positive, mannitol fermenting *S. aureus* from foods & clinical samples.

## PRODUCT SUMMARY AND EXPLANATION

This medium is prepared by replacing casein enzymic hydrolysate by Veg hydrolysate which makes the medium free of BSE/TSE risks. Vogel-Johnson Veg Agar Base is the modification of Vogel-Johnson Agar Base which is prepared according to the formula of Vogel and Johnson who modified the medium developed by Zebovitz by adding phenol red as a pH indicator and increased the mannitol quantity. This is a selective medium for the detection of coagulase positive Staphylococci.

## COMPOSITION

| Ingredients | Gms / Ltr |
|---|---|
| **Veg hydrolysate** | 10.000 |
| **Yeast extract** | 5.000 |
| **Mannitol** | 10.000 |
| **Dipotassium hydrogen phosphate** | 5.000 |
| **Lithium chloride** | 5.000 |
| **Glycine** | 10.000 |
| **Phenol red** | 0.025 |
| **Agar** | 16.000 |

## PRINCIPLE

Veg hydrolysate and yeast extract provide nitrogenous compounds, vitamin B complex and other growth nutrients. Dipotassium phosphate gives buffering capacity to the medium. During first 24 hours of incubation, contaminating organisms are almost inhibited by tellurite, lithium chloride and high glycine content. *Staphylococcus aureus* can also be inhibited by these inhibitors but they get compensated by mannitol and glycine. Coagulase-positive Staphylococci reduce potassium tellurite to metallic free tellurium and thus produce black colonies surrounded by yellow zones. This yellow colour is due to phenol red indicator which turns yellow in acidic condition by the fermentation of mannitol. Prolonged incubation may result in the growth of black coagulase negative colonies.

## INSTRUCTION FOR USE

- Dissolve 61.02 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.
- Cool to 45-50°C and add 20 ml of sterile 1% Potassium Tellurite solution.
- Mix gently and pour into sterile Petri plates.

Warning**:** Lithium Chloride is harmful. Avoid bodily contact and inhalation of vapours. On contact with skin wash with plenty of water immediately.

## QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Beige coloured, may have slightly greenish tinge, homogeneous, free flowing powder
**Appearance of prepared medium** : Orange coloured clear to slightly opalescent gel forms in Petri plates
**pH (at 25°C)** : 7.2±0.2

## INTERPRETATION

Cultural characteristics observed with added 1% Potassium Tellurite solution, after an incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth | Recovery | Colour of colony | Mannitol fermentation | Incubation Temperature | Incubation Period |
|---|---|---|---|---|---|---|---|---|
| *Escherichia coli* | *25922* | >=$10^3$ | Inhibited | 0% | - | - | 35-37°C | 24-48 Hours |
| *Proteus mirabilis* | *25933* | 50-100 | Poor | 10-20% | Black | Negative | 35-37°C | 24-48 Hours |
| *Staphylococcus aureus* | 25923 | 50-100 | Luxuriant | >=70% | Black with yellow halo | Positive | 35-37°C | 24-48 Hours |
| *Staphylococcus epidermidis* | *12228* | >=$10^3$ | Fair-good | 20-40% | Translucent to Blackish | Negative | 35-37°C | 24-48 Hours |

## PACKAGING:

In pack size of 100 gm and 500 gm bottles.

## STORAGE

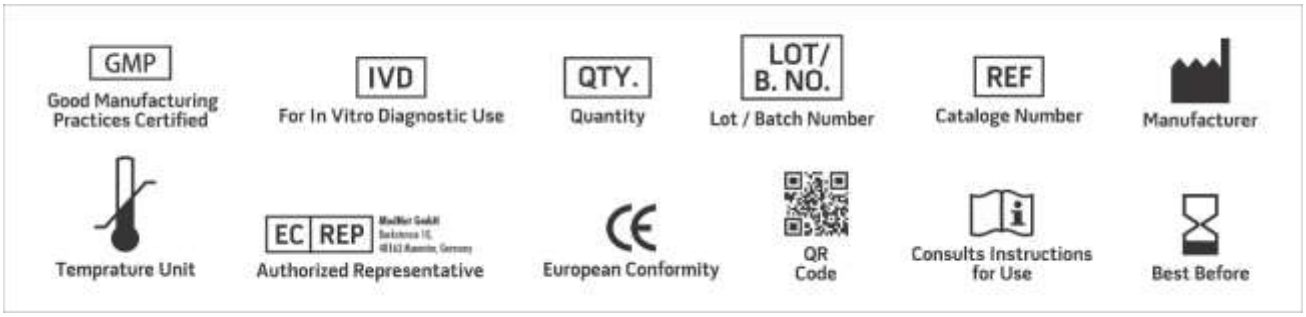
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided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

## DISPOSAL

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

## REFERENCES

1. Vogel and Johnson, 1960, Public Health Lab., 18:131.
2. Zebovitz, Evans and Niven, 1955, J. Bacteriol., 70:686.




**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

**Revision: 08 Nov., 2019**