

# **Technical Information**

## Minimum Salts w/ MiVeg Acid Hydrolysate

### Product Code: VM2254

**Application:-** Minimum Salt with MiVeg Acid Hydrolysate is recommended for the cultivation of *Escherichia coli* strains used for genetic and molecular studies.

### Composition

Ingredients	Gms / Litre	
MiVeg acid hydrolysate	4.0	
Disodium hydrogen phosphate	6.8	
Monopotassium hydrogen phosphate	3.0	
Sodium chloride	0.5	
Ammonium chloride	1.0	
Dextrose	4.0	
Magnesium sulphate	0.24	
Final pH ( at 25°C)	6.8±0.2	
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<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters.

## Principle & Interpretation

Minimum Salt with MiVeg acid hydrolysate is prepared by using vegetable peptone in place of animal based peptone thereby making the medium free from BSE/TSE risks. This medium is the modification of Minimum Salt with Casein acid hydrolysate which is prepared based on the formula originally suggested by Davis et al (1) for cultivating *Escherichia coli* strains used for genetic and molecular studies.

It contains MiVeg acid hydrolysate which provides many amino acids to *Escherichia coli*. Ammonium chloride is incorporated as a nitrogen source. Dextrose supplies carbon and energy. Phosphates present in medium to buffer it against pH changes due to the utilization of carbohydrate. Magnesium sulphate provides ions required in a variety of enzymatic reactions including DNA replication (2).

## Methodology

Suspend 19.54 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

# **Quality Control**

#### Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

#### Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent solution.

#### Reaction

Reaction of 1.95 % w/v aqueous solution pH: 6.8 ±0.2 at 25°C

#### pH range

6.6-7.0

#### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

Organisms (ATCC) Inoculum (CFU) Growth

Escherichia coli (B) (23226) 10<sup>2</sup>-10<sup>3</sup> luxuriant





# Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and use before expiry date as mentioned on the label. **Prepared Media:** 2-8°0 in sealable plastic bags for 2-5 days.

## Further Reading

- 1. Davis L.G., Dibner M.D. and Battey J.F., 1986, Basic Methods in Molecular Biology, Elsevier, New York, N.Y.
- 2. Sambrook J., Fritsch E.F. and Maniatis T., 1989, Molecular Cloning: A Laboratory Manual, 2<sup>nd</sup> ed., Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.

## Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
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