

### Technical Information

#### Minimum Essential Medium Eagle(MEM)

With Earle's Salts, L-Glutamine, 25mM HEPES, NEAA and Sodium bicarbonate

#### Product Code: AL1260A

**Application** :- Minimum Essential Medium (MEM) is a modification of Basal Medium Eagle(BME). It was developed by Harry Eagle to meet the specific nutritional requirements of certain subtypes of HeLa cells and normal mammalian fibroblasts. MEM includes higher concentration of amino acids so as to closely approximate the protein composition of cultured mammalian cells. MEM can be used either with Earle's salts or Hanks' salts and can also be additionally supplemented with non-essential amino acids (NEAA). This medium can be further modified by eliminating calcium to facilitate growth of cells in suspension cultures.

AL1260A is Minimum Essential Medium (MEM) with Earle's salt, 25mM HEPES buffer, non-essential amino acid, L-glutamine and Sodium bicarbonate. HEPES, a zwitterionic buffer having a pKa of 7.3 at 37°C prevents the initial rise in pH that tends to occur at the initiation of a culture and increases the buffering capacity of the medium. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

#### Composition\*\*

Ingredients	mg/Litre
<b>INORGANIC SALTS</b>	
Calcium chloride dihydrate	265.00
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Sodium chloride	6800.00
Sodium bicarbonate	2200.00
Sodium dihydrogen phosphate anhydrous	122.00
<b>AMINO ACIDS</b>	
Glycine	7.500
L-Alanine	8.900
L-Arginine hydrochloride	126.000
L-Asparagine monohydrate	15.000
L-Aspartic acid	13.300
L-Cystine dihydrochloride	31.300
L-Glutamic acid	14.700
L-Glutamine	292.000
L-Histidine hydrochloride monohydrate	42.000
L-Isoleucine	52.000
L-Leucine	52.000
L-Lysine hydrochloride	72.500
L-Methionine	15.000
L-Phenylalanine	32.000
L-Proline	11.500
L- Serine	10.500
L-Threonine	48.000
L-Tryptophan	10.000
L-Tyrosine disodium salt dihydrate	51.900
L-Valine	46.000

### VITAMINS

Choline chloride	1.000
D-Ca-Pantothenate	1.000
Folic acid	1.000
Nicotinamide	1.000
Pyridoxal	1.000
Riboflavin	0.100
Thiamine hydrochloride	1.000
i-Inositol	2.000

### OTHERS

D-Glucose	1000.00
HEPES buffer	5958.00
Phenol red sodium salt	11.000

## Quality control

### Appearance :

Orangish red colored, clear solution.

**pH** :7.00-7.60

**Osmolality in mOsm/Kg H<sub>2</sub>O**:-310.00-350.00

### Sterility :-

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

### Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts .

### Endotoxin Content:

NMT 1EU/ml

## Storage and Shelf Life

Store at 2-8°C away from bright light. Shelf life is 12 months. Use before expiry date given on the product label.

## Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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- Do not use the products if it fails to meet specifications for identity and performance parameters.