

DATA SHEET

Rev.ver: 01

1. Identification

Product name**Essential Medium Eagle (MEM) Minimum**

With Earle's salts, L-Glutamine, NEAA and Sodium pyruvate and Sodium Bicarbonate

Catalog.no**CCML138**

2. Description

Minimum Essential Medium (MEM), developed by Harry Eagle, is one of the most widely used of all synthetic cell culture media. Early attempts to cultivate normal mammalian fibroblasts and certain subtypes of HeLa cells revealed they had specific nutritional requirements that could not be met by Eagle's Basal Medium (BME). Subsequent studies using these and other cells in culture indicated additions to BME could be made to aid growth of a wider variety of fastidious cells.

MEM, which incorporates these modifications, includes higher concentrations of amino acids so the medium more closely approximates the protein composition of cultured mammalian cells. MEM has been used for cultivation of a wide variety of cells grown in monolayers. Optional supplementation of non-essential amino acids to the formulations that incorporate either Hanks' or Earle's salts has broadened the usefulness of this medium.

3. Product Specifications

Appearance	Clear Red Color Solution
CO ₂ concentration, optimum	5.0 %
Storage and shelf life	Store at +2°C to +8°C protected from light.
Shipping conditions	Ambient

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4. Formulation

Components	Concentration mg/L
Amino Acids:	
L-Alanine	8.9
L-Arginine HCl	126
L-Asparagine H ₂ O	15.0
L-Aspartic Acid	13.30
L-Cystine 2HCl	31.3
L-Glutamic Acid	14.70
L-Glutamine	292
Glycine	7.50
L-Histidine HCl H ₂ O	42.0
L-Isoleucine	52.0
L-Leucine	52.0
L-Lysine HCl	72.50
L-Methionine	15.0
L-Phenylalanine	32.0
L-Proline	11.50
L-Serine	10.50
L-Threonine	48.0
L-Tryptophan	10
L-Tyrosine 2Na 2H ₂ O	51.9
L-Valine	46.0

Components	Concentration mg/L
Vitamins:	
Choline chloride	1.0
D-Pantothenic acid • ½Ca	1.0
Folic Acid	1.0
myo-Inositol	2.0
Nicotinamide	1.0
Pyridoxal HCl	1.0
Riboflavin	0.10
Thiamine HCl	1.0
Inorganic Salts	
CaCl ₂ 2H ₂ O	265
MgSO ₄ (anhydrous)	97.72
KCl	400.00
NaCl	6800.00
NaH ₂ PO ₄	122.00
Sodium Bicarbonate	2200.00
Other Components:	
D-Glucose	1000.0
Sodium pyruvate	110.0
Phenol red sodium salt	11.0

5. Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.