

## Product Information

### MEM, NEAA, powder

Catalog Number: GBPWMEM03

## Product Specification

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Appearance	: Off-white to creamy white, homogenous powder
Storage & Shelf Life	: Store at +2°C to +8°C, dry and protected from light. Please refer to product label for expiration date.
Shipping Conditions	: Ambient
Use at	: 9.6g/L
Add	: 2.2g/L Sodium Bicarbonate

## Instructions for Use

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### Preparation of 1 liter liquid medium

1. Suspend 9.6 g in 900 ml cell culture grade water with constant, gentle stirring until the powder is completely dissolved. Do not heat the water.
2. Add 2.2 g of sodium bicarbonate powder or 29.3 ml of 7.5 % sodium bicarbonate solution for 1 liter of medium and stir until dissolved.
3. Adjust the pH to 0.2 to 0.3 pH units below the desired pH using 1 N HCl or 1 N NaOH since the pH tends to rise during filtration.
4. Add cell culture grade water up to the final volume of 1000 ml.
5. Sterilize the medium immediately by filtering through a sterile membrane filter with porosity of 0.22 micron or less, using positive pressure rather than vacuum to minimize the loss of carbon dioxide.
6. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
7. Store liquid medium at +2°C to +8°C and in dark until use.

## Additional Information

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- Concentrated medium preparation is not suggested as it may cause precipitation of low-solubility free base amino acids and salt complexes.
- The pH and sodium bicarbonate concentration of the prepared medium are significant parameters influencing cell development. The surface-to-volume ratio of the culture vessel and the amount of media employed also impact this. In large bottles, releasing huge amounts of carbon dioxide causes a noticeable increase in pH. Optimal pH, sodium bicarbonate content, and surface-to-volume ratios must be calculated for each cell type. We suggest strict pH monitoring. To alter the pH, use sterilized 1 N HCl or 1 N NaOH, or formed bubbles in carbon dioxide.
- If necessary, supplements can be given to the medium before or after filter sterilization while following sterility precautions. The shelf life of the medium will be determined by the type of supplement added to it.

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## Formulation

Components	Concentration mg/L
<b>Vitamins:</b>	
Choline chloride	1.0
D-Calcium Pantothenate	1.0
Folic Acid	1.0
Niacinamide	1.0
Pyridoxal hydrochloride	1.0
Riboflavin	0.1
Thiamine HCl	1.0
i-Inositol	2.0
<b>Inorganic Salts:</b>	
CaCl <sub>2</sub> (Anhydrous)	200.0
MgSO <sub>4</sub> (Anhydrous)	97.67
KCl	400.0
NaCl	6800.0
NaH <sub>2</sub> PO <sub>4</sub> H <sub>2</sub> O	140.0
<b>Other Components:</b>	
D-Glucose	1000.0
Phenol Red Sodium Salt	10.0

Components	Concentration mg/L
<b>Amino Acids:</b>	
Glycine	7.5
L-Alanine	8.9
L-Arginine HCl	126.0
L-Asparagine-H <sub>2</sub> O	15.0
L-Aspartic Acid	13.3
L-Cystine 2 HCl	31.28
L-Glutamic Acid	14.7
L-Glutamine	292.0
L-Histidine HCl H <sub>2</sub> O	42.0
L-Isoleucine	52.0
L-Leucine	52.0
L-Lysine HCl	72.5
L-Methionine	15.0
L-Phenylalanine	32.0
L-Proline	11.5
L-Serine	10.5
L-Threonine	48.0
L-Tryptophan	10.0
L-Tyrosine disodium salt dihydrate	51.9
L-Valine	46.0

This product is for research use only.

## Need help?

If you have any further queries, please feel free to email our cell culture specialists at [info@genexisbiotech.com](mailto:info@genexisbiotech.com)

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