ClearLine	Technical data sheet Media Powder	Ref : 509207

MEM w/ Hanks' Salts

w/ L-Glutamine, w/ Non Essential Amino Acids, w/o Sodium Bicarbonate

Storage conditions: Store dry powder medium at +2°C to +8°C
Store hydrated medium at +2°C to +8°C, protected from light

Shelf life: 36 months

Composition: Displayed on website and in catalogue; also available on request.

pH: 6.3 ± 0.3

Osmolality: 287 mOsm/kg ± 10%

Endotoxin: < 1 EU/ml

Recommended use:
- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store the product in a dry area
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall…)
- Protect the product from any form of humidity
- Use, in one time, after opening, the entire quantity of product of the container, without making a concentrated solution (to avoid the formation of precipitates). If it is not possible, close the container immediately after sampling the quantity of powder required.
- Supplements can be added prior to sterile filtration of the medium or aseptically introduced to sterile medium (respect the final concentration of the media). The nature of the supplements may affect storage conditions and shelf life of the medium.

The product is intended to be used in vitro for research or further manufacturing only and not for use as an Active Pharmaceutical Ingredient or food or animal feed.

Application:
Minimum Essential Medium (MEM) is one of the most used medium compared to other synthetics cell culture media. The culture of mammalian fibroblastic cells and of some sorts of Hela cells revealed they have specific nutritional needs absent from Basal Medium Eagle (BME).
Other studies using those cells and other cells in culture showed that a complementation of the BME medium could contribute to the growth of a wide range of cells. The MEM medium, which take into account those modifications, have a higher concentration in amino acids and is more similar to the protein composition of cultivated mammalian cells. The MEM medium has been used for the culture of a wide range of cells in monolayer. The complementation of the formula with non essential amino acids and the incorporation of Hanks' salts had increased the possibilities of use of this medium.
Uses:

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1) Measure 90% of final required volume of water. Water temperature should be 15-30°C.
2) While gently stirring the water, add the powdered medium (10.762 g/l). Stir until dissolved. Do not heat.
3) Rinse original package with a small amount of water to remove all traces of powder. Add to solution in step 2.
4) For each litre being prepared, add 0.35g of sodium bicarbonate (BioWest CAT N° P2060) or 4.7 ml of sodium bicarbonate solution at 7.5% (BioWest CAT N° L0680).
5) While stirring, adjust the pH of the medium to 7.0 – 7.2 using a solution of 1 N NaOH.
6) Add additional water to bring the solution to final volume.
7) Sterilize immediately by filtration using a membrane with a porosity of 0.22 microns.
8) Aseptically dispense medium into sterile container.

Signs of deterioration:
Dry powder medium should be free flowing. Do not use if powder caked. Prepared medium should be cleared of particulates and flocculent material. Do not use if liquid medium is cloudy or contains precipitate. Other evidence of deterioration may include colour change or degradation of physical or performance characteristics.

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