



PRODUCT PROFILE

Product Name:	Earle's Balanced Salt Solution(EBSS) w/o NaHCO ₃
Product Catalog Number	02-010-5
Concentration:	10X
Unit Size Availability:	500ml/100ml
Formulation:	Clear, Amber-Colored Solution
Specified Storage Conditions:	Room Temperature (15-30°C)
Stability: (Under Ideal Handling & Storage)	Please Refer To The Product Label

Important Note! Please read the *MSDS* and *Product Profile* carefully in their entirety **before** using this material for possible safety precautions and potential hazards.

Product Description

EBSS 10X is one of several balanced inorganic salt solutions that form the basis of many complex media formulations. The current role of a balanced salt solution in cell culture is multi-faceted and may be divided into four principal functions.

- Functions as a diluent, as an irrigating medium or transporting fluid while maintaining osmoregulation, the optimal and constant balance of osmotic pressure gradients between the intracellular and extracellular compartments.
- Provides cells with fluids and certain bulk inorganic ions essential for normal cell metabolism.
- When combined with a carbohydrate, such as C₆H₁₂O₆ (glucose), it provides a primary energy source for cell metabolism.
- When provided with a buffering system, it facilitates the maintenance of physiological pH within the acceptable range of 7.2-7.6.

Some Predominant Characteristics Of EBSS 10X include :

- ◆ Liquid Formulation
- ◆ Without Sodium Bicarbonate(NaHCO₃)
- ◆ With Phenol Red(C₁₉H₁₃NaO₅S) as a pH indicator
- ◆ Sterile-Filtered(0.1μ)
- ◆ Endotoxin-Tested

Instructions/Procedure:

The product should be stored at room temperature (15-30°). The product should not be left in the light for prolonged periods as it is light-sensitive. When stored in the dark under ideal conditions, the product is stable until the expiry date.

- 1) Take a bottle from the proper storage conditions at room temperature and read the label. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
- 2) Using aseptic/sterile technique under a laminar-flow culture hood, work according to established protocols.
- 3) Measure out sterile culture-grade water (Product No. 03-055-1) to approximately 70% of desired total volume of solution. Pour it into an appropriate sterile mixing container that is approximate to the desired final volume.
- 4) Add the proper amount of the concentrated EBSS 10X solution.
- 5) Add 2.2g/l of Sodium Bicarbonate (NaHCO₃).
- 6) Add sterile culture-grade water to obtain the final volume. During the dilution, stir gently until uniform. If necessary, adjust the pH with sterile 1N NaOH or HCl.

Quality Control

Test	Specification
Endotoxins	Test and Record
Osmolality (1:10 Dilution)	277-291 mOsm/Kg
pH	7.1-7.5
Sterility	Sterile

Auxiliary Products

Product Name	Catalog Number	Storage Temperature
L-Glutamine Solution 29.2mg/ml in Saline	03-020-1	-20°C
Alanyl-Glutamine Solution(A Dipeptide Substitute)	03-022-1	-20°C
Serum-Free Cell Freezing Medium	05-065-1	2-8°C
<i>Note:</i> For a list of antibiotics, serum, other reagents and supplements, please refer to our Product Catalog and Internet Site.		

References:

- 1) Current Edition Merck Index
- 2) Biological Industries(BI) Specifications
- 3) Darling, D.C. and Morgan S.J. *Animal Cells: Culture and Media*, John Wiley & Sons, New York, 1994