

### Technical Information

#### Hank's Balanced Salts Solution 1X With phenol red and Sodium bicarbonate Without Calcium

**Product Code: TL2024**

**Application:-** All media used in tissue culture have a basis of a synthetic mixture of inorganic salts known as a physiological or balanced salt solution (BSS). All the physiological salt solutions have been derived from the salt solution originally described by Sydney Ringer (1885). The first balanced salt solution to be developed specifically for supporting the metabolism of mammalian cells was Tyrode's solution. Since then many modifications have been done to obtain better buffering salt solutions and to prevent calcium precipitation.

The function of a salt solution is:

- To maintain the medium within physiological pH range.
- To maintain intracellular and extra cellular osmotic balance.
- Modified with a carbohydrate, such as glucose serves as an energy source for cell metabolism.

Hank's balanced salt solution is designed to equilibrate with air, hence does not require CO<sub>2</sub> air mixture. TL2024 is Hank's balanced salt solution with phenol red and sodium bicarbonate. It is designed for use with cells maintained in less CO<sub>2</sub> environment or CO<sub>2</sub> free environment. It does not contain calcium.

#### Composition\*\*

Ingredients	mg / Litre
<b>INORGANIC SALTS</b>	
Disodium hydrogen phosphate anhydrous	48.000
Magnesium sulphate anhydrous	97.720
Potassium chloride	400.000
Potassium dihydrogen phosphate anhydrous	60.000
Sodium bicarbonate	350.000
Sodium chloride	8000.000
<b>OTHERS</b>	
D-Glucose	1000.000
Phenol red sodium salt	10.000

#### Quality control

##### Appearance

Red colored, clear solution.

##### pH

7.10 -7.70

##### Osmolality in mOsm/Kg H<sub>2</sub>O

270.00 -310.00

##### Sterility

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

##### Toxicity test

Passes

##### Endotoxin Content

NMT 1 EU/ml

#### Storage and Shelf Life

Store at 15-30°C away from bright light.

Shelf life is 24 months.

Use before expiry date given on product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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