

## Hanks' balanced salts (HBSS)

Product No. A3140

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### Description

Powder mixture to prepare Hanks' balanced salts (HBSS) according to Hanks', J.H. & Wallace, R.E. (1949) *Proc. Soc. Exp. Biol. Med.* **71**, 196.

**with 1.0 g/L D(+)-Glucose**  
**without Phenol red**  
**without Sodium hydrogen carbonate**

Hygroscopic!  
Storage: 2-8°C

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### Instructions

General Information: Powdered media and salts are very hygroscopic and must be stored under dry conditions. After opening the package the whole contents must be dissolved at once.

Reconstitute the powdered form of media to produce 1X liquid medium, as the different amino acids may precipitate at higher concentrations. They potentially can form salts which are of low solubility in concentrated solutions. If supplements are needed, they can be added before filtration (unsterile) or after filtration (sterile).

Use bidistilled or deionized, pyrogen-free water to reconstitute powder media.

### Preparing sterile filtered liquid medium

- 1.) Add water to the required quantity of powdered medium (use approx. 90 % of the required amount of water so as to adjust the pH later). Flush out any remaining powder from the container. Stir until completely dissolved. The temperature of the water should be between 15-30°C
- 2.) When the powder is completely dissolved, **add Sodium hydrogen carbonate (NaHCO<sub>3</sub>) 0,350 g per liter of final medium** and dissolve completely as well.
- 3.) Adjust to the desired pH value (physiological optimum is pH 6.8 - 7.2) with 1 M HCl or 1 M NaOH while stirring.

**Note:** The pH should be approx. 0.2 units lower than the target pH, since pH will rise slightly during filtration when CO<sub>2</sub> leaks out.

- 4.) After adjusting the pH, add water to the appropriate final volume and mix well. Filter immediately under sterile conditions.
- 5.) Store the medium at 2-8°C protected from light.

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### Composition:

| Components       |                                      | mg/L<br>final medium:<br>9,83g/L |
|------------------|--------------------------------------|----------------------------------|
| Inorganic Salts  | Calcium chloride x 2H <sub>2</sub> O | 185,44                           |
|                  | Potassium chloride                   | 400,00                           |
|                  | Potassium dihydrogen phosphate       | 60,00                            |
|                  | Magnesium sulfate dried              | 139,52                           |
|                  | Sodium chloride                      | 8000,00                          |
|                  | di-Sodium hydrogen phosphate anhydr. | 47,88                            |
| Other Components | D(+)-Glucose anhydr.                 | 1000,00                          |
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