Phosphate Buffer pH 7.0

Intended use
Phosphate Buffer pH 7.0 is a ready to use buffering solution of pH 7.0 used in routine staining techniques.

Summary
Phosphate Buffer pH 7.0 is recommended for use in practical hematology during blood smears staining procedures. It is an essential buffer solution for preparation of diluted Giemsa/May-Gruenwald/Wright/Leishman solutions and for rinsing stained samples without causing destaining of stained cells. Buffer solutions are solutions of weak acids and their salts or weak bases and their salts. They enable maintaining approximately constant pH value by adding a certain number of strong acids or bases.

Principle
The buffer system consists of two salts: sodium hydrogen phosphate (Na_2HPO_4) and potassium dihydrogen phosphate (KH_2PO_4). Due to their concentration and pH, they provide a stable environment for staining.
The buffer used in the hematology staining protocol needs to be pH 7.0 or the results will be unsatisfactory. If the buffer is too acidic the stain will be too red, and nuclei will be too light; if it is too basic the stain will be too blue and cytoplasmic detail will be indistinct.

Reagents / Contents

KH2PO4	8 mM
Na2HPO4	6 mM
Final pH (at 25°C)	7.0 ±0.2

*Adjusted to suit performance parameters

Appearance: Colourless solution.

Storage and Stability
All reagents are stable at room temperature until the expiry date stated on each label.

Type of Specimen
Hematology samples.

Results
Phosphate Buffer yields satisfactory staining results every time when used with Romanowsky stains.

Limitations / Precautions
If fixative is used in excess quantity, it may cause shrinkage and hardening of tissue. Some fixatives may have potential biohazards, handle with proper safety lab ware only.

Warranty
This product is designed to perform as described on the label and pack insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference
1.Data on file: UltraCare Diagnostics .

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