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## Sodium Phosphates Rectal Solution

» Sodium Phosphates Rectal Solution is a solution of Dibasic Sodium Phosphate and Monobasic Sodium Phosphate, or Dibasic Sodium Phosphate and Phosphoric Acid, in Purified Water. It contains, in each 100 mL, not less than 5.4 g and not more than 6.6 g of dibasic sodium phosphate ( $\text{Na}_2\text{HPO}_4 \cdot 7\text{H}_2\text{O}$ ), and not less than 14.4 g and not more than 17.6 g of monobasic sodium phosphate ( $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$ ).

**Packaging and storage**—Preserve in tight, single-unit containers, at controlled room temperature.

**Identification**—It meets the requirements of the tests for [Sodium \(191\)](#), and for [Phosphate \(191\)](#).

**SPECIFIC GRAVITY (841)**: between 1.112 and 1.136.

**pH (791)**: between 5.0 and 5.8.

**Assay**—Pipet 5.0 mL of Rectal Solution into a 250-mL beaker, and add 15.0 mL of 0.5 N sodium hydroxide VS and 95 mL of water. Titrate the excess base potentiometrically with 0.5 N hydrochloric acid VS to the first inflection point, at a pH of about 9.2. Record the volume, A, in mL, of 0.5 N hydrochloric acid consumed. Continue the titration to the second inflection point, at a pH of about 4.4, and record the total volume, B, in mL, of 0.5 N hydrochloric acid required in the titration. For a blank determination, transfer 15.0 mL of 0.5 N sodium hydroxide into a 250-mL beaker, add 100 mL of water, and immediately titrate potentiometrically with 0.5 N hydrochloric acid VS. Record the volume, C, in mL, of 0.5 N hydrochloric acid consumed. Each mL of the volume (C – A) of 0.5 N hydrochloric acid is equivalent to 69.0 mg of monobasic sodium phosphate ( $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$ ). Each mL of the volume (B – C) of 0.5 N hydrochloric acid is equivalent to 134.0 mg of dibasic sodium phosphate ( $\text{Na}_2\text{HPO}_4 \cdot 7\text{H}_2\text{O}$ ).

**Auxiliary Information** - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
SODIUM PHOSPHATES RECTAL SOLUTION	<a href="#">Documentary Standards Support</a>	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services <a href="mailto:RSTECH@usp.org">RSTECH@usp.org</a>	SM32020 Small Molecules 3

**Chromatographic Database Information:** [Chromatographic Database](#)

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