



Potassium chromate, 5% w/v

R011

Intended use

Potassium Chromate, 5% w/v recommended for chloride estimation in urine sample.

Composition**

Ingredients

Potassium chromate	5.0 gm
Distilled water	100.0 ml
Final pH (at 25°C)	9.8±0.12

**Formula adjusted, standardized to suit performance parameters

Directions

Place 10 drops of urine in a test tube and add 1 drop of 5% potassium chromate (K_2CrO_4) solution as indicator. Add dropwise 2.9% silver nitrate until a permanent and distinct colour change of red brown occurs.

Principle And Interpretation

Potassium chromate indicator method is a precipitation titration method that uses potassium chromate (K_2CrO_4) as indicator and silver nitrate ($AgNO_3$) as the standard solution. Add a small amount of K_2CrO_4 as indicator before starting determination, and then titrate with $AgNO_3$ standard solution. After the start of the titration, the precipitate of white (silver chloride) or pale yellow (silver bromide) precipitates first. When Cl- or Br- precipitates quantitatively, a little excess silver nitrate solution will cause the concentration of Ag^+ suddenly increasing to immediately generate brick red silver chromate (Ag_2CrO_4) precipitation, indicating the titration endpoint. The chloride in the urine reacts with silver nitrate to precipitate as silver chloride. Any excess of silver nitrate reacts with potassium chromate to form a reddish precipitate of silver chromate, the appearance of which indicates the endpoint.

Type of specimen

Clinical samples: Urine

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (1,2).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

Performance and Evaluation

Performance of the product is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Lemon yellow coloured solution.

Clarity

Clear with no insoluble particles.

pH

9.72-9.92

Concentration

4.90%- 5.10%

