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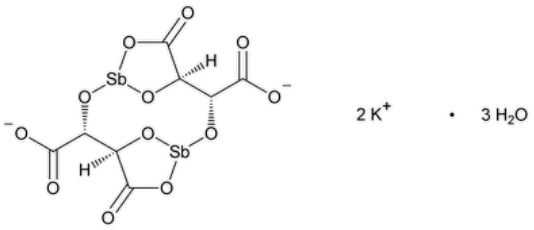
Antimony Potassium Tartrate



$C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$ 667.87
$C_8H_4K_2O_{12}Sb_2$ 613.82

Antimonate(2-), bis[μ-[2,3-dihydroxybutanedioato(4-)- $O^1,O^2:O^3,O^4$]]-di-, dipotassium, trihydrate, stereoisomer;
Dipotassium bis[μ-[L-(+)-tartrato(4-)]]diantimonate(2-) trihydrate CAS RN®: 28300-74-5; UNII: DL6OZ476V3.
Anhydrous CAS RN®: 11071-15-1; UNII: Z8830U53UE.

DEFINITION

Antimony Potassium Tartrate contains NLT 99.0% and NMT 103.0% of antimony potassium tartrate ($C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$).

IDENTIFICATION

- **A.**

  Sample: An appropriate quantity

  Analysis: Heat the *Sample* to redness.

  Acceptance criteria: It chars, emits an odor resembling that of burning sugar, and leaves a blackened residue. This residue has an alkaline reaction, and when a small fragment of it is held in a nonluminous flame, the flame is tinted violet.

- **B.**

  Sample solution: Antimony Potassium Tartrate (1 in 20) in water acidified with hydrochloric acid

  Analysis: Add hydrogen sulfide TS to the *Sample solution*.

  Acceptance criteria: It yields an orange-red precipitate, which is soluble in ammonium sulfide TS and in 1 N sodium hydroxide.

- **C.** **Identification Tests—General, *Tartrate*⟨191⟩:** Meets the requirements

ASSAY

- **Procedure**

  Sample: 500 mg

  Analysis: Dissolve the *Sample* in 50 mL of water, add 5 g of potassium sodium tartrate, 2 g of sodium borate, and 3 mL of starch TS, and immediately titrate with 0.1 N iodine VS to the production of a persistent blue color. Each mL of 0.1 N iodine is equivalent to 16.70 mg of antimony potassium tartrate ($C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O$).

  Acceptance criteria: 99.0%–103.0%

IMPURITIES

- **Arsenic**

  Sample solution: Dissolve 100 mg in 5 mL of hydrochloric acid. Add 10 mL of a recently prepared solution of 20 g of stannous chloride in 30 mL of hydrochloric acid.

  Blank: Add 5 mL of hydrochloric acid to 10 mL of a recently prepared solution of 20 g of stannous chloride in 30 mL of hydrochloric acid.

  Analysis: Transfer the *Sample solution* to a color-comparison tube, and allow to stand for 30 min.

  Acceptance criteria: NMT 0.015%; viewed downward over a white surface, the color of the solution appears no deeper than that of the *Blank* to which has been added 15 μg of arsenic.

Change to read:

- ▲**Lead ⟨251⟩, *Procedures, Procedure 1*▲** (CN 1-Jun-2023) **:** NMT 20 ppm

SPECIFIC TESTS

- **Completeness of Solution ⟨641⟩**

  Sample: 750 mg

Solvent: Water

Acceptance criteria: Meets the requirements

- **Loss on Drying ⟨731⟩**

Analysis: Dry at 105° to constant weight.

Acceptance criteria: NMT 2.7%

- **Acidity or Alkalinity**

Sample solution: Dissolve 1.0 g in 50 mL of carbon dioxide-free water.

Analysis: Titrate the *Sample solution* with 0.010 N hydrochloric acid or 0.010 N sodium hydroxide to a pH of 4.5.

Acceptance criteria: NMT 2.0 mL

ADDITIONAL REQUIREMENTS

- **Packaging and Storage:** Preserve in well-closed containers.

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
ANTIMONY POTASSIUM TARTRATE	Documentary Standards Support	SM12020 Small Molecules 1
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM12020 Small Molecules 1

Chromatographic Database Information: Chromatographic Database

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