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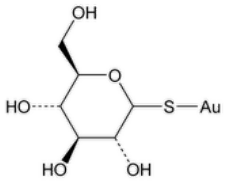
Aurothioglucose



$C_6H_{11}AuO_5S$ 392.18

Gold, (1-thio-D-glucopyranosato)-.

(1-Thio-D-glucopyranosato)gold CAS RN®: 12192-57-3; UNII: 2P2V9Q0E78.

» Aurothioglucose contains not less than 95.0 percent and not more than 105.0 percent of $C_6H_{11}AuO_5S$, calculated on the dried basis. It is stabilized by the addition of a small amount of Sodium Acetate.

Packaging and storage—Preserve in tight, light-resistant containers. Store at room temperature.

USP Reference standards ⟨11⟩—

USP Aurothioglucose RS

Identification—

A: Dissolve a suitable quantity in water to obtain a solution containing 4 mg per mL. Apply 10 µL of this solution and 10 µL of an aqueous Standard solution of USP Aurothioglucose RS containing 4 mg per mL to a suitable thin-layer chromatographic glass microfilament sheet (see *Chromatography ⟨621⟩*) impregnated with silicic acid and a suitable fluorescing substance. Allow the spots to dry, and develop the chromatogram in a solvent system consisting of a mixture of *n*-propyl alcohol, water, and ethyl acetate (3:3:1) until the solvent front has moved about three-fourths of the length of the plate. Remove the sheet from the developing chamber, mark the solvent front, and allow the solvent to evaporate. Locate the spots on the plate by examination under short-wavelength UV light: the R_F value of the principal spot obtained from the solution under test corresponds to that obtained from the Standard solution.

B: To a portion of the filtrate obtained in the *Assay* add barium chloride TS: a heavy, white precipitate is formed.

Specific rotation ⟨781S⟩: between +65° and +75°.

Test solution: 10 mg per mL, in water.

Loss on drying ⟨731⟩—Dry it over phosphorus pentoxide for 24 hours: it loses not more than 1.0% of its weight.

Assay—Accurately weigh about 1 g of Aurothioglucose, and dissolve in 100 mL of water in a 300-mL Kjeldahl flask. Slowly add 10 mL of nitric acid, and when the reaction has subsided, boil the mixture for 5 minutes. Filter, wash well the separated gold with hot water, dry, and ignite to constant weight. The weight of the gold so obtained, multiplied by 1.991, represents the weight of $C_6H_{11}AuO_5S$ in the portion of Aurothioglucose taken.

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

Topic/Question	Contact	Expert Committee
AUROTHIOGLUCOSE	Documentary Standards Support	SM22020 Small Molecules 2
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM22020 Small Molecules 2

Chromatographic Database Information: Chromatographic Database

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