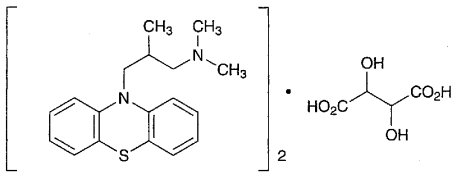
Alimemazine Tartrate

酒石酸アリメマジン



$(C_{18}H_{22}N_2S)_2.C_4H_6O_6$: 746.98
N,N-Dimethyl-*N*-[2-methyl-3-(phenothiazin-10-yl)propyl]amine hemitartrate [*41375-66-0*]

Alimemazine Tartrate, when dried, contains not less than 98.0% of $(C_{18}H_{22}N_2S)_2.C_4H_6O_6$.

Description Alimemazine Tartrate occurs as a white powder. It is odorless, and has a bitter taste.

It is freely soluble in water and in acetic acid (100), sparingly soluble in ethanol (95), and practically insoluble in diethyl ether.

The pH of a solution of Alimemazine Tartrate (1 in 50) is between 5.0 and 6.5.

It is gradually colored by light.

Identification (1) To 2 mL of a solution of Alimemazine Tartrate (1 in 100) add 1 drop of iron (III) chloride TS: a red-brown color is produced, and immediately a yellow precipitate is formed.

(2) Dissolve 1 g of Alimemazine Tartrate in 5 mL of water, add 3 mL of sodium hydroxide TS, extract with two 10-mL portions of diethyl ether [use the aqueous layer obtained in the Identification (4)]. Shake the combined diethyl ether extracts with 3 g of anhydrous sodium sulfate, filter, and evaporate the diethyl ether with the aid of a current of air. Dry the residue in a desiccator (in vacuum, phosphorus (V) oxide) for 16 hours: it melts between 66°C and 70°C.

(3) Determine the absorption spectrum of a solution of Alimemazine Tartrate (1 in 100,000) as directed under the Ultraviolet-visible Spectrophotometry, and compare the spectrum with the Reference Spectrum: both spectra exhibit similar intensities of absorption at the same wavelengths.

(4) The aqueous layer, obtained in the identification (2), when neutralized with dilute acetic acid, responds to the Qualitative Tests (1) and (2) for tartrate.

Melting point 159 - 163°C

Purity (1) Clarity and color of solution—Dissolve 1.0 g of Alimemazine Tartrate in 20 mL of water: the solution is clear and colorless.

(2) Heavy metals—Proceed with 1.0 g of Alimemazine Tartrate according to Method 2, and perform the test. Prepare the control solution with 2.0 mL of Standard Lead Solution (not more than 20 ppm).

(3) Arsenic—Prepare the test solution with 1.0 g of Alimemazine Tartrate according to Method 3, and perform the test using Apparatus B. Use a solution of magnesium nitrate hexahydrate in ethanol (95) (1 in 5) (not more than 2 ppm).

Loss on drying Not more than 0.5% (1 g, 105°C, 3 hours).

Residue on ignition Not more than 0.10% (1 g).

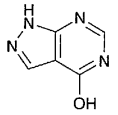
Assay Weigh accurately about 0.8 g of Alimemazine Tartrate, previously dried, dissolve in 50 mL of acetic acid (100), and titrate with 0.1 mol/L perchloric acid VS until the color of the solution changes from red through brown to green-brown (indicator: 2 mL of *p*-naphtholbenzein TS). Perform a blank determination, and make any necessary correction.

Each mL of 0.1 mol/L perchloric acid VS
= 37.350 mg of $(C_{18}H_{22}N_2S)_2.C_4H_6O_6$

Containers and storage Containers—Tight containers. Storage—Light-resistant.

Allopurinol

アロプリノール



$C_5H_4N_4O$: 136.11
1*H*-Pyrazolo[3,4-*d*]pyrimidin-4-ol [*315-30-0*]

Allopurinol, when dried, contains not less than 98.0% of $C_5H_4N_4O$.

Description Allopurinol occurs as white to pale yellowish white crystals or crystalline powder. It is odorless.

It is slightly soluble in *N,N*-dimethylformamide, very slightly soluble in water, and practically insoluble in ethanol (95) and in diethyl ether.

It dissolves in sodium hydroxide TS and in ammonia TS.

Melting point: not lower than 320°C (with decomposition).

Identification (1) Dissolve 0.1 g of Allopurinol in 50 mL of water by warming. To 5 mL of this solution add 1 mL of ammonia TS and 1 mL of silver nitrate TS: a white precipitate is produced.

(2) Dissolve 0.1 g of Allopurinol in 50 mL of water by warming. To 5 mL of this solution add 0.5 mL of copper (II) sulfate TS: a blue precipitate is produced.

(3) Determine the absorption spectrum of a solution of Allopurinol (1 in 200,000) as directed under the Ultraviolet-visible Spectrophotometry, and compare the spectrum with the Reference Spectrum: both spectra exhibit similar intensities of absorption at the same wavelengths.

Purity (1) Clarity and color of solution—Dissolve 0.5 g of Allopurinol in 10 mL of sodium hydroxide TS: the solution is clear, and has no more color than Matching Fluid D.

(2) Sulfate—To 2.0 g of Allopurinol add 100 mL of water, and boil for 5 minutes. Cool, add water to make 100 mL, and filter. To 25 mL of the filtrate add 1 mL of dilute hydrochloric acid and water to make 50 mL, and perform the test using this solution as the test solution. Prepare the control solution with 0.40 mL of 0.005 mol/L sulfuric acid VS (not more than 0.038%).

(3) Heavy metals—Proceed with 1.0 g of Allopurinol according to Method 2, and perform the test. Prepare the con-