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Piperazine Citrate Syrup

» Piperazine Citrate Syrup is prepared from Piperazine Citrate or from Piperazine to which an equivalent amount of Citric Acid is added. It contains an amount of piperazine citrate equivalent to not less than 93.0 percent and not more than 107.0 percent of the labeled amount of piperazine hexahydrate ($C_4H_{10}N_2 \cdot 6H_2O$).

Packaging and storage—Preserve in tight containers.

Identification—

A: To 2 mL of Syrup add 5 mL of 3 N hydrochloric acid, then add, with stirring, 1 mL of sodium nitrite solution (1 in 2). Chill in an ice bath for 15 minutes, stirring if necessary, to induce crystallization, filter the precipitate on a sintered-glass funnel, wash with 10 mL of cold water, and dry at 105°: the *N,N'*-dinitrosopiperazine so obtained melts between 156° and 160°.

B: It responds to the tests for [Citrate \(191\)](#).

Assay—Determine the specific gravity of Syrup, and transfer an accurately weighed portion of the Syrup, equivalent to about 200 mg of piperazine citrate, to a 250-mL beaker. Add 10 mL of water and 75 mL of trinitrophenol TS, stir well, and allow to stand in a refrigerator for not less than 2 hours. Collect the precipitate in a tared filtering crucible, wash with five 10-mL portions of dehydrated alcohol, and dry at 105° to constant weight. *[Caution—Picrates may explode.]* The weight of the dipicrate, multiplied by 0.3568, gives the equivalent of $C_4H_{10}N_2 \cdot 6H_2O$ in the portion of Syrup taken.

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

Topic/Question	Contact	Expert Committee
PIPERAZINE CITRATE SYRUP	Documentary Standards Support	SM32020 Small Molecules 3
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM32020 Small Molecules 3

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

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