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Chlorpromazine Hydrochloride

$C_{17}H_{19}ClN_2S \cdot HCl$ 355.33
10*H*-Phenothiazine-10-propanamine, 2-chloro-*N,N*- dimethyl-, monohydrochloride.
2-Chloro-10-[3-(dimethylamino)propyl]phenothiazine monohydrochloride CAS RN®: 69-09-0; UNII: 9WP59609J6.
» Chlorpromazine Hydrochloride contains not less than 98.0 percent and not more than 101.5 percent of $C_{17}H_{19}ClN_2S \cdot HCl$, calculated on the dried basis.

Packaging and storage—Preserve in tight, light-resistant containers.

USP REFERENCE STANDARDS (11)—
[USP Chlorpromazine Hydrochloride RS](#)

[NOTE—Throughout the following procedures, protect test or assay specimens, the Reference Standard, and solutions containing them by conducting the procedures without delay, under subdued light, or using low-actinic glassware.]

Identification—

- Change to read:**
- A:** ▲ [Spectroscopic Identification Tests \(197\)](#), [Infrared Spectroscopy: 197K](#) ▲ (CN 1-May-2020) ·
- B:** The principal spot found in the test for *Other alkylated phenothiazines* corresponds in R_F to the spot from the *Standard solution*.
- C:** A solution (1 in 10) responds to the tests for [Chloride \(191\)](#).

MELTING RANGE (741): between 195° and 198°.
LOSS ON DRYING (731)—Dry it at 105° for 2 hours: it loses not more than 0.5% of its weight.
RESIDUE ON IGNITION (281): not more than 0.1%.

Other alkylated phenothiazines—Dissolve 50 mg, previously dried, in methanol to make 10 mL, and mix. Proceed as directed in the test for [Other alkylated phenothiazines](#) under [Chlorpromazine](#), beginning with “Dissolve a suitable quantity of [USP Chlorpromazine Hydrochloride RS](#).” The area and intensity of any spot, other than the principal spot, from the solution of Chlorpromazine Hydrochloride are not greater than those of the spot from the *Diluted standard solution* (0.5%).

Assay—Transfer to a beaker about 700 mg of Chlorpromazine Hydrochloride, accurately weighed, and dissolve in 75 mL of glacial acetic acid. Add 10 mL of mercuric acetate TS, and titrate with 0.1 N perchloric acid VS, determining the endpoint potentiometrically. Each mL of 0.1 N perchloric acid is equivalent to 35.53 mg of $C_{17}H_{19}ClN_2S \cdot HCl$.

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

Topic/Question	Contact	Expert Committee
CHLORPROMAZINE HYDROCHLORIDE	Documentary Standards Support	SM42020 Small Molecules 4

Chromatographic Database Information: [Chromatographic Database](#)

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