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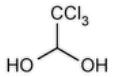
Chloral Hydrate



$C_2H_3Cl_3O_2$ 165.40

1,1-Ethanediol, 2,2,2-trichloro-.

Chloral hydrate CAS RN®: 302-17-0; UNII: 418M5916WG.

» Chloral Hydrate contains not less than 99.5 percent and not more than 102.5 percent of $C_2H_3Cl_3O_2$.

Packaging and storage—Preserve in tight containers.

Identification—Transfer to a 125-mL conical flask a portion of a solution in water equivalent to about 1 mg of chloral hydrate, and add water to bring the volume to about 10 mL. Add 10 mL of 1-ethylquinaldinium iodide solution (15 in 1000), which has been filtered through a 0.45-µm filter. Add 60 mL of isopropyl alcohol, 5 mL of an aqueous 0.1 M monoethanolamine solution, and 15 mL of water. Mix, and heat in a water bath at 60° for 15 minutes: a blue color develops.

Acidity—A 1 in 20 solution in alcohol does not at once redden moistened blue litmus paper.

Residue on Ignition ⟨281⟩: not more than 0.1%.

Chloride ⟨221⟩—To a 1 in 10 solution in alcohol add a few drops of silver nitrate TS: any opalescence produced does not exceed that of a control containing 0.10 mL of 0.020 N hydrochloric acid (0.007%).

Readily carbonizable substances ⟨271⟩—Shake 500 mg, at intervals of 5 minutes during 1 hour, with 5 mL of sulfuric acid in a glass-stoppered cylinder that previously has been rinsed with sulfuric acid, and transfer the mixture to a comparison vessel: the mixture has no more color than *Matching Fluid P*.

Assay—Dissolve about 4 g of Chloral Hydrate, accurately weighed, in 10 mL of water, add 30.0 mL of 1 N sodium hydroxide VS, and allow the mixture to stand for 2 minutes. Add a few drops of phenolphthalein TS, and titrate the residual alkali at once with 1 N sulfuric acid VS. Each mL of 1 N sodium hydroxide corresponds to 165.4 mg of $C_2H_3Cl_3O_2$.

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

Topic/Question	Contact	Expert Committee
CHLORAL HYDRATE	Documentary Standards Support	SM42020 Small Molecules 4

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
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