

Residue on ignition Not more than 0.30% (1 g).

Assay (1) Diphenhydramine—Weigh accurately about 0.5 g of Dimenhydrinate, previously dried, transfer to a 250-mL separator, and add 50 mL of water, 3 mL of ammonia TS and 10 g of sodium chloride. Extract with six 15-mL portions of diethyl ether with shaking, combine the diethyl ether extracts, and wash the combined diethyl ether extracts with three 50-mL portions of water. To the diethyl ether extracts add exactly 25 mL of 0.05 mol/L sulfuric acid VS, and add 25 mL of water. Shake thoroughly, and evaporate the diethyl ether gently. Cool, and titrate the excess sulfuric acid with 0.1 mol/L sodium hydroxide VS (indicator: 3 drops of methyl red TS). Perform a blank determination, and make any necessary correction.

Each mL of 0.05 mol/L sulfuric acid VS
= 25.536 mg of $C_{17}H_{21}NO$

(2) 8-Chlorotheophylline—Weigh accurately about 0.8 g of Dimenhydrinate, previously dried, transfer to a 200-mL volumetric flask, add 50 mL of water, 3 mL of ammonia TS and 6 mL of a solution of ammonium nitrate (1 in 10), and heat on a water bath for 5 minutes. Add exactly 25 mL of 0.1 mol/L silver nitrate VS, heat on a water bath for 15 minutes with occasional shaking, cool, and add water to make exactly 200 mL. Allow to stand overnight to settle the precipitate, and filter through a dry filter paper, discarding the first 20 mL of the filtrate. Measure exactly 100 mL of the subsequent filtrate, acidify with nitric acid, add 3 mL of nitric acid, and titrate the excess silver nitrate with 0.1 mol/L ammonium thiocyanate VS (indicator: 2 mL of ammonium iron (III) sulfate TS). Perform a blank determination, and make any necessary correction.

Each mL of 0.1 mol/L silver nitrate VS
= 21.461 mg of $C_7H_7ClN_4O_2$

Containers and storage Containers—Well-closed containers.

Dimenhydrinate Tablets

ジメンヒドリンート錠

Dimenhydrinate Tablets contain not less than 95% and not more than 105% of the labeled amount of dimenhydrinate ($C_{17}H_{21}NO \cdot C_7H_7ClN_4O_2$; 469.96).

Method of preparation Prepare as directed under Tablets, with Dimenhydrinate.

Identification (1) Triturate a quantity of powdered Dimenhydrinate Tablets, equivalent to 0.5 g of Dimenhydrinate according to the labeled amount, with 25 mL of warm ethanol (95), and filter. Dilute the filtrate with 40 mL of water, and filter again. Use the filtrate as the sample solution. Transfer 30 mL of the sample solution to a separator, and proceed as directed in the Identification (1) under Dimenhydrinate.

(2) With 30 mL of the sample solution obtained in (1), proceed as directed in the Identification (2), (3) and (4) under Dimenhydrinate.

Assay Weigh accurately, and powder not less than 20

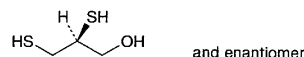
Dimenhydrinate Tablets. Weigh accurately a portion of the powder, equivalent to about 0.5 g of dimenhydrinate ($C_{17}H_{21}NO \cdot C_7H_7ClN_4O_2$), transfer to a flask, add 40 mL of ethanol (95), and heat with swirling on a water bath until the solution just boils. Continue to heat for 30 seconds, and filter through a glass filter (G4). Wash the filter with warm ethanol (95), transfer the filtrate and washings to a flask, and evaporate the ethanol on a water bath to make 5 mL. Add 50 mL of water, 3 mL of ammonia TS and 6 mL of a solution of ammonium nitrate (1 in 10), heat the mixture on a water bath for 5 minutes, add exactly 25 mL of 0.1 mol/L silver nitrate VS, and heat on a water bath for 15 minutes with occasional shaking. Transfer the mixture to a 200-mL volumetric flask, using water to rinse the flask, cool, add water to make exactly 200 mL, and proceed as directed in the Assay (2) under Dimenhydrinate.

Each mL of 0.1 mol/L silver nitrate VS
= 47.00 mg of $C_{17}H_{21}NO \cdot C_7H_7ClN_4O_2$

Containers and storage Containers—Well-closed containers.

Dimercaprol

ジメルカプロール



$C_3H_8OS_2$: 124.23
(*RS*)-2,3-Disulfanylpropan-1-ol [59-52-9]

Dimercaprol contains not less than 98.5% and not more than 101.5% of $C_3H_8OS_2$.

Description Dimercaprol is a colorless to pale yellow liquid. It has a mercaptan-like, disagreeable odor.

It is miscible with methanol, with ethanol (95), and with diethyl ether.

It is soluble in peanut oil, and sparingly soluble in water.

Identification (1) Add 1 drop of Dimercaprol to a mixture of 1 drop of a solution of cobalt (II) chloride hexahydrate (1 in 200) and 5 mL of water: a yellow-brown color develops.

(2) Add 1 drop of Dimercaprol to a mixture of 1 drop of a solution of iron (II) sulfate heptahydrate (1 in 200) and 5 mL of water: a red color develops.

(3) Dissolve 1 drop of Dimercaprol in 20 mL of water, add 1 mL of a solution of sodium hydroxide (1 in 10), and shake. Add 0.2 mL of sodium pentacyanonitrosylferrate (III) TS, and shake: a purple color develops immediately, and changes to green on standing.

Refractive index n_D^{20} : 1.570 – 1.575

Specific gravity d_{20}^{20} : 1.238 – 1.248

Purity (1) Clarity and color of solution—Dissolve 1.0 mL of Dimercaprol in 20 mL of peanut oil: the solution is clear and colorless to pale yellow.

(2) Bromide—To 2.0 g of Dimercaprol add 25 mL of dilute potassium hydroxide-ethanol TS, and heat in a water bath under a reflux condenser for 2 hours. Evaporate the