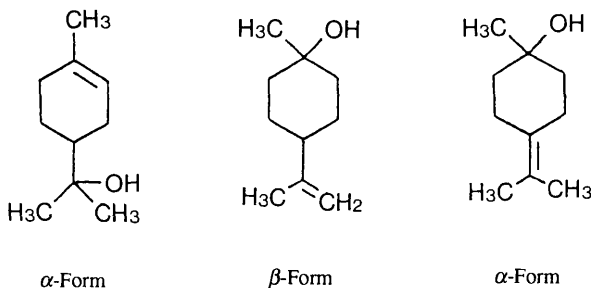


Terpineol



C₁₀H₁₈O

Mol. Wt. 154.25

Mixture of *p*-menth-1-en-8-ol (α -terpineol), *p*-menth-8-en-1-ol (β -terpineol), and *p*-menth-4-en-1-ol (α -terpineol)

Content Terpineol contains not less than 97.0% of terpineol (C₁₀H₁₈O).

Description Terpineol is a colorless or slightly yellowish transparent liquid having a characteristic odor.

Identification To 1 ml of Terpineol, add 1 ml of acetic anhydride and 1 drop of phosphoric acid, allow to stand at 30 °C for 10 minutes, and add 1 ml of water. Heat in hot water for 5 minutes while shaking and cool. Add 8 ml of anhydrous sodium carbonate solution (1 : 8). An odor of terpinyl acetate is evolved.

Purity (1) Refractive index n_D^{20} : 1.482 - 1.484.

(2) Specific gravity 0.932 - 0.938.

(3) Clarity of solution Clear (1.0 ml, 70% (vol) ethanol 2.0 ml).

Assay Weigh exactly 5.0 g of Terpineol and 20.0 g of xylene, transfer into a flask, add 10 ml of acetic anhydride and 1 g of anhydrous sodium acetate. Boil gently with a reflux condenser for 6 hours and cool. Add 10 ml of water, heat in a water bath for 15 minutes while shaking occasionally, and cool. Transfer the contents to a separating funnel and separate the water layer. Wash the oil layer with anhydrous sodium carbonate solution (1 : 8) until the washings become alkaline, and wash with sodium chloride solution (1 : 10) until the washings become neutral. Transfer into a dried container, add about 2 g of anhydrous sodium sulfate, shake, allow to stand for about 30 minutes, and filter. Weigh accurately about 5 g of the filtrate, and proceed as directed under Ester Content in the Flavoring Substance Tests. In the test, boil the solution for 4 hours before titrating. Perform a blank test in the same manner, and calculate the content by the formula

Content of terpineol (C₁₀H₁₈O)

$$= \frac{154.25 \times (a - b) \times 0.5}{(S - (a - b) \times 0.02102) \times 5 / 25 \times 1,000} \times 100(\%),$$

where **a** = volume (ml) of 0.5 mol/l hydrochloric acid consumed in the blank test,
b = volume (ml) of 0.5 mol/l hydrochloric acid consumed in this test,
S = weight (g) of the filtrate.