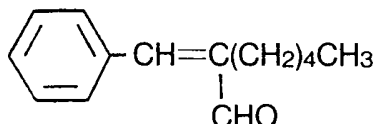


D. MONOGRAPHS

-Amylcinnamaldehyde

-Amylcinnamic Aldehyde



$C_{14}H_{18}O$

Mol. Wt. 202.30

2-Phenylmethylene-1-heptanal

[122-40-7]

Content -Amylcinnamaldehyde contains not less than 98.0% of -amyl cinnamaldehyde ($C_{14}H_{18}O$).

Description -Amylcinnamaldehyde is a light yellow to yellow and transparent liquid having a characteristic odor.

Identification (1) To 1 drop of -Amylcinnamaldehyde, add 1 ml of water, shake well, add 2 drops of sodium nitroprusside TS, add 2 drops of sodium hydroxide solution (3 13), and shake. A deep yellow color develops. Add 5 drops of diluted acetic acid (1 3). The color of the solution becomes lighter.

(2) Dissolve 5 ml of -Amylcinnamaldehyde in 20 ml of ethanol. To this solution add sodiumhydroxide solution (1.3 6) containing 1.7g of hydroxylamine hydrochloride, shake well, and allow to stand for about 90 minutes. White crystals are deposited. Collect the crystals by filtration, and recrystallize, using ethanol as the solvent. The melting point is 73 - 76 .

Purity (1) Refractive index n_D^{20} : 1.554 - 1.560.

(2) Specific gravity 0.967 - 0.972.

(3) Clarity of solution Clear (1.0 ml, 80% (vol) ethanol 5 ml).

(4) Acid value Not more than 1.0 (Flavoring Substances Tests).

Residue on Ignition Not more than 0.05% (2 g).

Assay Weigh accurately about 1.5 g of -Amylcinnamaldehyde, and proceed as directed under Method 2 in Aldehyde and Ketone Content in the Flavoring Substances Tests. Heat the mixture for 30 minutes before titrating.

1 ml of 0.5 mol/l hydrochloric acid = 101.15 mg of $C_{14}H_{18}O$