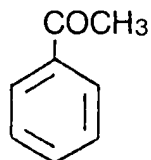


## D. MONOGRAPHS

### Acetophenone



C<sub>8</sub>H<sub>8</sub>O

Mol. Wt. 120.15

1-phenylethanone

[ 98-86-2 ]

**Content** Acetophenone contains not less than 98.0% of acetophenone (C<sub>8</sub>H<sub>8</sub>O).

**Description** Acetophenone occurs as white crystalline lumps or is a colorless or slightly yellowish and transparent liquid. It has a characteristic odor.

**Identification** Proceed as directed under the Liquid Film Method in Infrared Spectrophotometry. Acetophenone exhibits the absorbances at about 1,680 cm<sup>-1</sup>, 1,600 cm<sup>-1</sup>, 1,450 cm<sup>-1</sup>, 1,360 cm<sup>-1</sup>, 1,265 cm<sup>-1</sup>, and 760 cm<sup>-1</sup>.

**Purity** (1) Refractive index n<sup>20</sup><sub>D</sub> = 1.532 - 1.534

(2) Congealing point 18 - 20

(3) Clarity of solution Clear (1.0 ml, 60% (vol) ethanol 4.0 ml).

(4) Halogenated compounds Proceed as directed under Halogenated Compounds in the Flavoring Substances Tests.

**Assay** Weigh accurately about 1 g of Acetophenone, and proceed as directed under Method 2 in Aldehyde and Ketone Content in the Flavoring Substances Tests. In the test, heat the mixture for 1 hour before titrating.

1 ml of 0.5 mol/l hydrochloric acid = 60.08 mg of C<sub>8</sub>H<sub>8</sub>O