

**Revised Monograph Appeared in HPI Vol. VIII & IX**

**ACIDUM ACETICUM**

(Ac. acet.)

**Chemical symbol** :  $\text{CH}_3\text{COOH}$  **Mol. Wt.:** 60.053

**Common names** : Acidum aceticum glaciale, Aceti acidum, Glacial acetic acid; *French*: Acide acetique; *German*: Essigsäure.

**Description** : A clear, colourless liquid having a very strong odour of vinegar and a sharp acid reaction. It is miscible with water and alcohol in all proportions. It is prepared from alcohol or by synthesis. Its specific gravity is 1.0471. It boils at about 118° and congeals at a temperature not lower than 15.6°. Contains not less than 99.4 percent of  $\text{C}_2\text{H}_4\text{O}_2$ .

**Identification** : (i) when warmed with *dilute sulphuric acid* and alcohol, the characteristic odour of ethyl acetate is evolved.

(ii) When neutralised, responds to the *reactions* characteristic of acetates.

**Arsenic** : Not more than 2 parts per million,

**Chlorides** : 5 ml complies with the *limit test for chlorides*,

**Heavy metals** : Evaporate 5 ml to dryness in a porcelain dish on a water-bath, warm the residue with 2 ml of 0.1 N *hydrochloric acid* and add *water* to make 25 ml, the *limit of heavy metal* is 10 parts per million.

**Non-volatile matter** : Leaves not more than 0.01 percent w/w of residue, when evaporated to dryness and dried to constant weight at 105°.

**Assay** : Weigh accurately about 5.0 g into a stoppered flask containing 50 ml of *water* and titrate with 1 N *sodium hydroxide*, using solution of phenolphthalein as indicator. Each ml of 1 N *sodium hydroxide* is equivalent to 0.06005 g of  $\text{C}_2\text{H}_4\text{O}_2$ .

**History and authority** : Allen's Encyclop. Mat. Med. Vol. I, 4. Hering's Guid. Symp. Vol. I.

**Preparation** : (a) Mother Solution Drug Strength 1/10

(I) Acidum Aceticum 104.7 g

Purified Water in sufficient quantity

to make one thousand millilitres of the Mother Solution.

(b) Potencies: 2x and 3x with Purified Water to be freshly made for immediate use only, 4x and 5x with *dilute alcohol*. 6x and higher with *Dispensing Alcohol*.

(II) Trituration 1x	Drug Strength 1/10
Acidum Aceticum	100 g
Saccharum Lactis	900 g

to make one thousand grammes of the trituration.

During the process of trituration care should be taken to ensure that the temperature does not rise above 12°.

(b) Potency: 2x and higher to be triturated in accordance with the method, 6x may be converted to liquid 8x. 9x and higher with *Dispensing Alcohol*.