



IS 15356:2003 Acetaldehyde- Specification (Summary)

About- product “Acetaldehyde”:- (Chemical formula- CH_3CHO)- The systemic name of Acetaldehyde is ethanol. The eth-prefix shows that molecule is made of two carbons and the –al suffix tells that there is aldehyde functional group.

Acetaldehyde is a colorless liquid with a strong, pungent odor, often associated with the smell of overripe fruits or alcohol, boiling near room temperature. It is one of most important aldehydes, occurring widely in nature and being produced on a large scale in industry.

Acetaldehyde can be produced through various methods, including the oxidation of ethanol (alcohol) or through the partial oxidation of ethylene.

Use(s) of Acetaldehyde:-

It is widely used in manufacturing of herbicides, insecticides, fungicides, perfumes, drugs, acetic acid, dyes, flavoring agent, plastics and synthetic rubbers etc.

It's also used in the synthesis of acetic acid, perfumes, flavors, and as a solvent. It also serves as a precursor to several other chemicals like acrylic acid, butyraldehyde, and pentaerythritol.

Testing requirement(s):- Determination of-

1. Total aldehydes as Acetaldehyde, percent by mass as per Annex-A.

It's very useful as aldehyde has following uses-

Aldehydes are crucial compounds in various industrial, pharmaceutical, and commercial sectors. Their uses range from the production of chemicals, plastics, and resins to their roles in medicine, fragrances, and as preservatives.

2. The standard give information about Paraldehyde content, percent by mass as per Annex-B. It's very useful as Paraldehyde has following uses-

- Sedative and Hypnotic: to treat insomnia and anxiety.
- Anticonvulsant: For e treatment of acute alcohol withdrawal or to manage seizures.
- Chemical Intermediate: like plasticizers, perfumes, and flavors.

3. Water content, percent by mass as per IS 2362

4. Total acidity as acetic acid, percent by mass, A-6 of IS 361. Acetic acid is used in following:-

Chemical Production, Food Industry, Agriculture, Pharmaceutical, Household, Biological and Cosmetic.