

Summary of IS 14707:1999 - Methyl Acrylate Specification

Definition of the Product:

IS 14707:1999 is the Indian Standard that specifies the requirements for Methyl Acrylate, a versatile chemical compound produced through the esterification of acrylic acid or acrylonitrile. Methyl Acrylate is widely used in the manufacturing of polymeric resins, fibers, and as a key ingredient in water treatment chemicals and ion-exchange resins. Due to its flammable nature and potential for explosive vapor mixtures, ensuring its quality and safety is paramount for industrial applications.

Quality Parameters Expected by Consumers:

Consumers expect high-quality Methyl Acrylate to meet several critical parameters, including: **Purity:** A minimum assay of 99.5% by mass is essential for effective performance in various applications. **Acidity:** The acidity level, expressed as acrylic acid, should not exceed 0.01% by mass to prevent negative reactions in formulations. **Color:** The color should be limited to a maximum of 20.00 on the Pt-Co scale to ensure suitability for diverse applications. **Water Content:** A maximum water content of 0.20% by mass is required to maintain chemical integrity. **Inhibitor Levels:** The concentration of inhibitors (as methyl ether hydroquinone) should not exceed 120 ppm to ensure stability during storage.

How the Standard Addresses These Expectations:

IS 14707:1999 effectively addresses these consumer expectations by establishing rigorous testing methods and quality control measures. The standard references various ASTM methods for assessing purity, acidity, water content, and inhibitor levels, ensuring comprehensive quality assurance. It also outlines specific sampling procedures to guarantee representative testing and mandates clear packaging and labeling requirements for traceability. By providing a framework for conformity assessment, IS 14707:1999 ensures that only high-quality Methyl Acrylate that meets these stringent standards is available in the market, thereby safeguarding consumer interests and promoting industry compliance.