

IS 14709:1999 N-BUTYL ACRYLATE – SPECIFICATION

N-Butyl acrylate, having the chemical formula $\text{CH}_2=\text{CHCOO}(\text{CH}_2)_3\text{CH}_3$, is the butyl ester of acrylic acid. It is a clear colorless liquid with a fruity, strong odour. It is the major base acrylic ester monomer used in the manufacture of copolymers for paint & coatings, adhesives & sealants, printing inks, thermoplastic ethylene-acrylate copolymers, and a myriad of other application areas.

N-Butyl acrylate is a flammable liquid, which can cause serious eye irritation and skin irritation on contact. Its vapour is flammable as well. Being acutely toxic, n-butyl acrylate is harmful if it is inhaled or comes in contact with skin.

IS 14709 prescribes the following requirements and the corresponding methods of test to ensure the quality of n-butyl acrylate –

- Minimum acceptable value for assay
- Maximum permissible value of acidity
- Maximum permissible colour
- Permissible upper limit for water content
- Permissible upper limit for inhibitors

Requirements for acidity, water content and inhibitors ensure that presence of impurities such as acrylic acid, water and butyl etherhydroquinone is limited to bare minimum.

IS 14709 also prescribes the requirements for packing the product and important information to be marked on the packages.

N-Butyl Acrylate (Quality Control) Order issued by DCPC mandates that all n-butyl acrylate sold, manufactured, or imported in India comply with IS 14709 and display the BIS Standard Mark.