



## **IS 538, Phenol (Carbolic Acid)- Specification**

**Phenol (also known as carbolic acid)** is an aromatic organic compound widely used in the production of plastics, resins, **disinfectants, and pharmaceuticals**. It is used in manufacturing of plastics (like Bakelite), resins, pharmaceuticals, and disinfectants. It serves as a precursor to chemicals like bisphenol A (BPA) and hydroquinone. While valuable in various industries, phenol is toxic and requires careful handling due to its potential health and environmental risks. The parameters such as **Solubility in Water, Crystallization Point, Moisture Content, Purity and Residue on Evaporation** ensure its suitability for various industrial applications, particularly in the manufacturing of plastics, resins, disinfectants, and pharmaceuticals.

To ensure that Phenol meets these requirements, the Bureau of Indian Standards (BIS) has formulated **IS 538**, which provides the specifications for its **purity, composition**, and acceptable levels of impurities. IS 538 also provides for requirements of **packaging and test methods** to determine the compliance with the quality parameters such Solubility in Water, Crystallization Point, Moisture Content, Purity and Residue on Evaporation.

IS 538 is crucial for the standardization of phenol quality in India. It sets specifications for the purity, chemical composition, and physical properties of phenol, ensuring consistency and safety in its industrial use. Compliance with IS 538 helps maintain product reliability and regulatory adherence across sectors like chemicals, pharmaceuticals, and plastics.