



IS 2012: Red Phosphorus- Specification

Red phosphorus is a crucial material in industries such as match production, metallurgy, and fireworks, where it serves as a key reactive agent. Its purity and safety are critical due to its potential hazards, especially when white phosphorus contamination is present. Maintaining a high-quality standard for red phosphorus is essential for safe industrial applications, protecting users, and ensuring consistent product performance across various applications.



Indian standard defines specific requirements to guarantee that red phosphorus used in industrial applications is pure, stable, and safe for handling. The standard mandates a minimum purity of 97.5%, with moisture content below 0.2% and water-soluble material content under 1.5%. Any traces of white phosphorus are strictly prohibited, as this form poses significant risks due to its reactivity. For defense applications, additional specifications limit heavy metals such as copper and iron to a maximum of 50 ppm. Airtight packaging is also required, with labelling that includes weight, manufacture date, and warnings about the material's flammability.

The Indian standard ensures that consumers receive high-purity, safe red phosphorus for industrial uses. The packaging and labeling requirements protect users and handlers by providing critical information, helping prevent accidents during storage and transport. For industries relying on red phosphorus, BIS-approved products are an assurance of quality and safety, vital for both everyday and specialised applications.