



## **IS 5191 : 1993 Sodium Alginate, Food grade Specification**

Sodium alginate, a food-grade stabilizing and thickening agent, is widely used in processed foods. Its chemical formula is  $(C_6H_7O_6Na)_n$ , and it appears as a white to pale brown fibrous or granular powder. It is soluble in water, forming a viscous solution, but insoluble in ethanol, ether, and chloroform. This standard ensures the product's purity, safety, and functionality for food applications.

Consumers expect food-grade sodium alginate to meet stringent quality requirements, ensuring safety and effectiveness. The critical quality parameters include: Purity, Microbiological Safety: Free from E. coli and Salmonella; Low Contaminants: Limits on heavy metals (lead, arsenic etc.), Physical Properties: Defined moisture content, minimal insoluble matter and viscosity requirements for effective thickening.

IS 5191:1993 establishes comprehensive guidelines to ensure sodium alginate meets consumer expectations. The standard defines description and various identification tests like solubility, alginic acid, determination of purity, moisture and viscosity. Further the standard specifies various requirements for sodium alginate like Purity, moisture percent by mass, Matter Insoluble in water, viscosity, Ash, acid insoluble ash, lead arsenic, heavy metals, Microbiological requirements like E Coli, Salmonella etc.

**Packaging and Storage Requirements:** Proper packing in moisture-proof containers and storage in cool, dry conditions preserve product quality. **Labelling and Marking:** Mandated details on containers, such as product name, source, batch number, and manufacturing date, ensure traceability and compliance with regulatory norms.

By addressing these aspects, IS 5191:1993 aligns with consumer safety needs, supporting manufacturers in delivering high-quality sodium alginate for food applications.