



IS 8249:2019 Zinc Sulphate Heptahydrate, Agricultural Grade — Specification

Zinc Sulphae Heptahydrate is a high-quality, water-soluble micronutrient used in agriculture to address zinc deficiencies in crops. This premium-grade product helps enhance plant growth, improve yield, and boost overall crop health. Ideal for Indian farming conditions, it supports better root development and strengthens resistance to environmental stress. With its easy application, Zinc Sulphae ensures optimal nutrient absorption for healthier, more productive crops.

IS 8249: 2019 defines the specifications for Zinc Sulphate Heptahydrate ($ZnSO_4 \cdot 7H_2O$) used in agriculture. The product must be in crystalline form and contain a minimum of 21% zinc and 10% sulfur. It must comply with strict purity requirements, including a maximum of 1% insoluble matter, 0.1% copper, 0.003% lead, 0.5% magnesium, 0.002% cadmium, and 0.01% arsenic. Additionally, it should have a pH of at least 4.0 when dissolved in a 5% solution. These standards ensure the product is effective in correcting zinc deficiencies in soil and crops.

Zinc Sulphate Heptahydrate must be packed in laminated jute bags or HDPE/PP woven sacks according to Indian standards, with clear labeling that includes the manufacturer's name, batch number, zinc content, weight, and manufacturing date. The packaging must comply with the Fertilizer (Control) Order, 1985 and Legal Metrology (Packaged Commodities) Rules, 2011.

The material should be handled and stored according to IS 5985 to preserve its quality.

Zinc content is tested in individual samples, while other characteristics are tested in composite samples. The batch is considered compliant if all test results meet the prescribed specifications.

IS 8249: 2019 ensures that Zinc Sulphate Heptahydrate meets high standards for agricultural use. Compliance with these requirements guarantees the product's effectiveness in promoting healthy crop growth, improving yield, and ensuring safe handling, packaging, and storage for farmers.