

## **Summary of IS 8291: 1976 (Specification for phenthoate emulsifiable concentrates)**

IS 8291: 1976 specifies the standards for phenthoate emulsifiable concentrates, used primarily in **agricultural pest control**. The product is a clear, stable liquid that emulsifies easily in water to aid pest control applications.

For agricultural users and consumers, key quality expectations include **consistency in concentration, stability in various temperatures, safety in handling, and effectiveness against pests without separation of the active ingredient**. Additionally, the product should meet safety guidelines for transportation, storage, and usage.

The Indian standard addresses these expectations by specifying physical and chemical requirements for phenthoate emulsifiable concentrates. It mandates a **cold test at 0°C to ensure no separation of solid or oily matter occurs**, confirming **stability in low temperatures**. The **flash point** of the product must exceed **24.5°C**, ensuring safe handling and storage. **Emulsion stability** is also tested to prevent **sedimentation and oil separation, maintaining a uniform product for end-users**. Chemical standards dictate the concentration tolerance of phenthoate and acidity & alkalinity levels, ensuring consistency and effectiveness.

In addition to quality control, IS 8291: 1976 includes guidelines for safe packaging and labelling, ensuring containers are durable, labelled with essential information, and display necessary hazard symbols. The standard also provides detailed sampling and testing methods to maintain product consistency and safety, aligning with consumer expectations for a reliable and effective agricultural pesticide.