



## Indian Standard IS 8025 : 2024 Monocrotophos, Technical Summary

**Monocrotophos** is a highly potent organophosphate **insecticide** that has been used for decades in agriculture to protect crops from a wide range of pests. It has proven to be highly effective in **controlling pests such as aphids, caterpillars, mites, and leafhoppers**, making it popular among farmers for protecting valuable crops like cotton, rice, maize, and other grains. However, its extensive use also raises significant safety concerns due to its acute toxicity to humans, animals, and the environment.

This standard **IS 8025 : 2024** defines permissible concentrations, formulation quality, and useful instructions designed to protect human health and the environment. IS 8025 covers essential parameters such as:

- **Composition and Quality Control:** Ensuring that the monocrotophos product meets specific purity and composition requirements, which reduces variability in potency and toxic effects. Key specifications include **Monocrotophos content min of 68 percent**, limit of **Free acetic acid mono-methylamide (MMA) content as 4 percent maximum**, limit of **Acidity (as H<sub>2</sub>SO<sub>4</sub>) content as 3 percent maximum**.
- **Labeling and Packaging:** Providing guidelines for proper labeling, including **cautionary notice as per Insecticides Act, 1968**, usage instructions, and safe handling advice. This is crucial for ensuring that users understand the risks and proper application procedures. **Mild steel containers or HDPE containers** are allowed to use for packaging of Monocrotophos.
- **Storage and Disposal:** Offering recommendations for safe storage, preventing accidental leaks or spills, and specifying methods for the safe disposal of unused product and containers.

Standards like IS 8025 play a vital role in promoting safer pesticide practices. By establishing clear quality, handling, and disposal protocols, IS 8025 helps reduce the risks associated with monocrotophos. For example, the standard may specify that monocrotophos be diluted to lower concentrations for specific crops, minimizing the amount of active ingredient introduced into the environment.