



### **IS 8944: 2005 Chlorpyrifos, Emulsifiable Concentrates- Specification**

Without the use of pesticides, more than half of our crops would be lost to pests and diseases. Between 26 and 40 percent of the world's potential crop production is lost annually because of weeds, pests and diseases. Without crop protection, these losses could easily double.

**Chlorpyrifos, emulsifiable concentrate (EC)** is a widely used **pesticide** formulation containing the active ingredient chlorpyrifos, an **organophosphate insecticide**. This product is typically mixed with water to create an emulsion that can be applied to crops, lawns, and other areas to control a broad spectrum of pests, including insects that affect crops, plants, and structures. Chlorpyrifos EC works by inhibiting the enzyme acetylcholinesterase in pests, disrupting their nervous system and ultimately leading to their death.

**Key Quality Parameters:** It must be a homogeneous and stable liquid, free from significant sediments or suspended matter, ensuring smooth dilution with water to form a stable emulsion suitable for spraying.

**IS 8944: 2005** prescribes essential requirements that demonstrates the product being of **requisite quality** for ordinary **farmer** to use it without any worries. **Cold Test, Flash Point (Abel)** and **Emulsion Stability** ensures stability of the product.

These specifications ensure the quality and **consistency of the formulation** for effective **pest control** applications which includes **Crop protection**, Public Health in **Vector borne disease control programs** including malaria spreading mosquitoes, **Residential & Industrial Pest Control**, Non-crop area and **Stored Grain Protection**.

Few popular brands in India selling the product are: **Dursban, Ciproduct, Nuvacron, Power, Master, Rudra, Killer**.

Due to its high toxicity to insects, it is important to use chlorpyrifos carefully, following recommended application rates and safety protocols to minimize risks to humans, animals, and the environment. Though it is not banned in India under the **Insecticide Act, 1968**, the **Central Insecticides Board and Registration Committee (CIBRC)** recommended limiting its application to agricultural uses under strict guidelines.