

# **Parabens** are a group of synthetic compounds commonly used as

preservatives in cosmetics, pharmaceuticals, and food products. They are effective at preventing the growth of bacteria, mold, and yeast, which helps extend the shelf life of products. The most commonly used parabens are **Methylparaben**, **Ethylparaben**, and **Propylparaben**.

# **Chemical Properties**

## **Appearance:**

Parabens are typically white crystalline solids or powders.

### **Solubility:**

Parabens have limited solubility in water but are more soluble in alcohol, acetone, and other organic solvents. Methylparaben is the most water-soluble, followed by ethylparaben, with propylparaben being the least water-soluble.

#### pH Stability:

Parabens are stable across a wide pH range, which contributes to their effectiveness in various formulations.

#### **Melting Points:**

Methylparaben: Approximately 125–128°C

Ethylparaben: Approximately 115–118°C

Propylparaben: Approximately 96–99°C

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