

**Optiphen ND** is a complete liquid preservative system that does not contain any halo-organic components, formaldehyde, or formaldehyde releasers and is paraben free. It is effective against Gram-positive and Gram-negative bacteria, yeast, and mold. Due to the organic acids present in Optiphen ND, **the pH of finished formulations should be 6 or below** for effective utilization of these compounds as antimicrobial agents. Optiphen ND is especially suited for surfactant based systems with lower more acidic pH's such as shampoos, shower gels, liquids soaps, and body washes.

**Optiphen ND** is approved worldwide.

### **Applications**

- Can be used in a wide variety of personal care products including **shampoos, shower gels, body washes**, creams, lotions, gels, and wet wipes **with acidic pH**.
- Can be **added into any phase** of the manufacturing process including the water phase of emulsions; tolerates temperatures up to 80°C (**176°F**) well.
- In aqueous systems with low amounts of emulsifiers, intensive mixing is recommended to achieve uniform dispersal of the active ingredients.
- May be de-activated by non-ionic surfactants and emulsifiers; as a result, these materials should be minimized or avoided.

**Recommended use level:** 0.2 - 1.2% of total formulation weight.

**Directions:** Add to formulation at temps of 80°C (**176°F**) or lower.

**INCI:** Phenoxyethanol (and) Benzoic Acid (and) Dehydroacetic Acid

MSDS for Optiphen ND