

**Germaben II-E** is a clear, viscous, liquid preservative system designed for emulsion systems **with oil phases greater than 25%**. Germaben II-E includes a total concentration of 20% parabens predissolved in Propylene Glycol for easy and convenient addition to cosmetic formulations. It minimizes the difficulties associated with incorporating solid parabens. Germaben II-E is a complete broad spectrum antimicrobial preservative system that is effective against Gram-positive and Gram-negative bacteria, yeast, and mold.

**Germaben II-E** is approved for use in the Americas and all the components of Germaben II-E are permanently listed by the EU.

### **Applications**

- Can be used in a wide pH-range (3.0-7.5).
- Compatible with most cosmetic ingredients.
- Readily soluble at a level of 1.0% in most water/oil and oil/water emulsions but not in water alone.
- Can be conveniently incorporated into **hot or cold processed** creams and lotions during their manufacture.
- Preferred method of addition is to add it slowly to the cosmetic formulation below 60°C (**140°F**) with good stirring after emulsification and just prior to the addition of fragrance; in fact, some fragrance materials are most effectively incorporated into cosmetics by pre-dissolving them in Germaben II-E and then adding the mixture slowly to the finished formulation.
- Recent data shows Germaben II E can be added at emulsification temperatures, but it is always best to add the preservative at the coolest temperature possible.

**Recommended use level:** is 0.5-1.0% of total formulation weight.

**Directions:** Add to formulation at temps of 60°C (**140°F**) or lower.

**INCI:** Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben.

**PROS & CONS:** Germaben II E is best used in formulas that are at least 25% oil, or even in majority oil formulations such as water in oil emulsions. Germaben II E is ideal for anhydrous oil based sugar or salt scrubs, high oil content body butters, etc.

Germaben II E is a paraben based preservative system.