

Liquid Germall Plus is a patented combination of Germall II and IPBC pre-dissolved in Propylene Glycol for ease of use. This combination exhibits a synergistic preservative effect, which reduces the total active preservative level necessary; provides for complete, broad spectrum preservation against Gram-positive and Gram-negative bacteria, yeast, and mold. **Germall Plus Liquid can be used in surfactant based systems.**

Liquid Germall Plus is approved for use in the Americas and the components of Liquid Germall Plus are individually listed by the EU: Diazolidinyl Urea at levels up to 0.5% without restrictions; IPBC permanently listed at levels up to 0.02% on a 100% basis without labeling requirements and up to 0.05% with labeling requirements. In the EU, IPBC should not be used in oral hygiene products, lip products, or in aerosolized sprays.

Applications

- Fully compatible with cationic, anionic, or non-ionic surfactants and emulsifiers, as well as proteins.
- Normal use levels of 0.05-0.2% will preserve most systems (0.2% is recommended for systems containing a large amount of protein and/or complex ingredients).
- Safe for both leave-on and rinse-off products.
- Can be used in a wide pH range (3.0-8.0).
- Water soluble up to 1.0%; also soluble in the emulsified portion of a cream, conditioner, or lotion from room to elevated temperatures.
- Add at 50°C (**122°F**) or below during the cool down stage of processing.

Recommended use level: 0.1%-0.5% of total formulation weight.

Directions: Add to formulation at temps of 50°C (**122°F**) or lower.

INCI: Propylene Glycol & Diazolidinyl Urea & Iodopropynyl Butylcarbamate.

Germall Plus, Powder is a white, free-flowing hygroscopic powder, is a unique and cost effective preservative system that provides a high level of antimicrobial activity in a wide variety of cosmetic and personal care formulations. This patented combination of Germall II (Diazolidinyl Urea) and IPBC has a dual mode of action that achieves a synergistic preservative effect. This system is highly effective in inhibiting the growth of Gram-positive and Gram-negative bacteria and troublesome house organisms, plus yeasts and molds, without the need for additional preservatives.