

**Lotioncrafter®**

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## **Germall® Plus**

### **INCI: Diazolidinyl Urea (and) Iodopropynyl Butylcarbamate**

#### **DESCRIPTION**

Germall Plus is a patented combination of 99% Diazolidinyl Urea (DU) and 1% Iodopropynyl Butylcarbamate (IPBC). It is a broad spectrum non-paraben antimicrobial with enhanced efficacy at low levels. It is effective against Gram-negative and Gram-positive bacteria, yeasts, and molds. Easily soluble in emulsions and solutions; it is compatible with virtually all cosmetic ingredients, including proteins and surfactants. It is approved for use in both leave-on and rinse-off applications. Germall Plus should not be used in oral and lip care products.

#### **PROPERTIES**

Germall Plus is a white, fine, free-flowing powder with little to no odor.

#### **HANDLING AND STORAGE**

Germall Plus is hygroscopic (draws water to it) and should be stored in its original airtight container in a cool, dry location. When properly stored, Germall Plus will maintain its anhydrous state. We ship your product with a desiccant pack. Please keep this in the container and discard when the container is empty. **Please refer to the Material Safety Data Sheet (MSDS) and follow all safety precautions when handling this product.** Keep this and all preservatives out of reach of children.

#### **FORMULATING WITH GERMALL PLUS**

Germall Plus is heat sensitive and should be added to the water phase or to the emulsified portion of the formulation at a temperature of 122°F (50°C) or below, during the cool down stage. If the powder has clumped at all, and is being added to the emulsified portion, it should be sieved into the product to break down the clumps, insuring even dispersion throughout the entire formulation.

Germall Plus can effectively preserve most cosmetic and personal care formulations in concentrations beginning at 0.025%. Recommended usage rates are between 0.05% to 0.2%. Products containing significant amounts of proteins and/or complex ingredients should be preserved at the higher rate of 0.2%.

#### **TOXICOLOGY AND REGULATORY INFORMATION**

One of the components in the blend, Iodopropynyl Butylcarbamate, (IPBC) is readily absorbed by the skin and it should not be used in oral, lipcare and aerosolized products.

Excerpt from the US Cosmetic Ingredient Review (CIR) 1998 Study concluded IPBC was Safe with Qualifications:

*"Final Report on the Safety Assessment of Iodopropynyl Butylcarbamate (IPBC) In this study the Expert Panel concluded that IPBC is safe as a cosmetic ingredient at concentrations < 0.1%, but that it should not be used in products intended to be aerosolized."*

Excerpt from the EU's Cosmetic Directive based on the Scientific Committee on Cosmetic Products and Non-food Products (SCCNFP) opinion on IPBC dated 29 February 2000:

*"Whereas:*

*In the concentrations in which it is normally used as a preservative in cosmetic products, 3-iodo-2-propynyl butylcarbamate is not likely to have harmful effects on human health. Therefore, it should be removed from the list in Part 2 of Annex VI and entered in the list in Part 1 of Annex VI.*

*Substance: 3-Iodo-2-propynylbutylcarbamate*

*Maximum authorized concentration: 0.05 %*

*Limitations and requirements:*

*1. Not to be used for oral hygiene and lipcare products*

*2. If the concentration in products intended to remain on the skin exceeds 0,02 % add the phrase: Contains iodine*

*Conditions of use and warnings which must be printed on the label:*

*Contains iodine*

*"The SCCNFP is of the opinion that 3-Iodo-2-propynyl-butylcarbamate (IPBC) is safe for use in cosmetic products as a preservative at a maximum concentration of 0.05 %. The SCCNFP proposes the following further restrictions or conditions for its use in cosmetic products: the substance should not be used in oral hygiene and lip products. Leave-on products, containing more than 0.02 % of 3-Iodo-2-propynyl-butylcarbamate (IPBC), must be labelled 'Contains Iodine'."*

As a frame of reference, Germall Plus contains:

99% Diazolidinyl Urea

1% Iodopropynyl Butylcarbamate

100% Total

Used at the maximum recommended usage rate of 0.2% in your formulation, Germall Plus would contribute:

0.198% Diazolidinyl Urea

0.002% Iodopropynyl Butylcarbamate

0.2% Total

Germall Plus can also be premixed for ease of use by blending it in a 1:1 ratio with propylene glycol. This can also make it easier to measure. For example, four ounces of Germall Plus can be dissolved in 4 ounces of propylene glycol and stored in an 8 ounce bottle. This blend would then be used at a rate of 0.1% - 0.4% in your formulation.

**LIMITED WARRANTY – PLEASE READ CAREFULLY**

The information contained herein is offered in good faith based on Lotioncrafter's research and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information shall not be used in substitution for customers' tests to insure that Lotioncrafter's products are fully satisfactory for your specific applications. Our warranty is that the product will meet its current sales specifications. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.