DMAMP™ ULTRA PC ALKALIZING AGENT

For Lower-odor Oxidative Hair Colorants
For decades, permanent hair colorants have delivered a spectrum of colors to consumers by reacting small molecules in an alkaline, oxidative coupling process promoted by peroxide. While ammonia has been the most robust alkalizer in terms of color palette and performance, it has a very unpleasant odor.

To address the growing consumer demand for low-odor hair colorants, ANGUS introduced DMAMP™ ULTRA PC (INCI: Dimethylamino Methylpropanol), a multifunctional alkalizing agent for use in professional and retail oxidative hair colorants. DMAMP ULTRA PC is 80% active (20% water by weight) and has been shown to enable rich, long-lasting color performance with excellent gray coverage. Due to its high alkalinity and low volatility, DMAMP ULTRA PC is an ideal low-odor alternative to ammonia in oxidative hair colorants.

**KEY PERFORMANCE ADVANTAGES**

- Low-odor profile
- Improved wash fastness of color
- Excellent color deposition
- Excellent gray coverage

**DMAMP ULTRA PC**

2-dimethylamino-2-methyl-1-propanol

INCI: Dimethylamino Methylpropanol
pKa: 10.2
RICH AND VIBRANT COLORS
DMAMP ULTRA PC enables excellent color deposition into the hair fiber of pre-bleached hair, comparable to commercial and formulated systems that use ammonia and/or MEA.

Color performance of black and red shades using DMAMP ULTRA PC is comparable to ammonia and the retail product used. DMAMP ULTRA PC outperforms other low-odor alkalizers, and provides formulators with an alternative alkalizer that deposits rich hair color.

SUPERIOR WASH FASTNESS
One of the main benefits observed using DMAMP ULTRA PC in oxidative hair color formulations is its ability to provide superior wash fastness of color. Even in difficult-to-maintain vibrant red shades, DMAMP ULTRA PC outperforms other low-odor alkalizer systems and competes with the industry standard, ammonia. Measuring the color change (ΔE*ab) over 15 wash cycles the performance for DMAMP ULTRA PC was superior to other low-odor alkalizers and comparable to ammonia.

<table>
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<th>PRODUCT</th>
<th>L*</th>
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Color performance of black and red shades using DMAMP ULTRA PC is comparable to ammonia and the retail product used. DMAMP ULTRA PC outperforms other low-odor alkalizers, and provides formulators with an alternative alkalizer that deposits rich hair color.
The improved wash fastness of the color was observed in black as well as red shades. In the test formulation, a small improvement was shown to wash fastness in reds using DMAMP ULTRA PC versus ammonia.

### Wash Fastness of Red Shades

![Graph showing wash fastness of red shades](image)

### EXCELLENT GRAY COVERAGE

Excellent gray coverage and color deposition was observed in oxidative coloring systems formulated with DMAMP ULTRA PC. When compared to other low-odor alkalizers, DMAMP ULTRA PC provided the most deposition of color onto gray hair tresses and superior wash fastness after 15 shampoos.

![Gray hair image](image)

### Wash Fastness of Dyed Gray Hair

![Graph showing wash fastness of dyed gray hair](image)

**ΔE of Dyed Gray Hair after 15 Washes**

- Ammonia
- MEA
- AMP-ULTRA PC 2000
- DMAMP ULTRA PC