

# LAB REPORT

FROM THE DE LORENZO LABORATORY & EVALUATION

## AMMONIA vs MEA

The interest in ammonia-free permanent hair colours in the industry is only the result of heavy marketing campaigns. As a company, we need to understand and assess the claims made about the benefits of ammonia-free colour and search for the real truth about this particular product segment.

Each year, De Lorenzo Research Chemists travel overseas to study and bring back the latest information on dye pigments and ingredients in hair colours, so that we can improve the formulation that we use in our professional Novacolor range.

Except for the strong odour, ammonia is actually better for powder lightening, lifting, colour delivery, longevity of colour and the health of hair. Additionally, ammonia is a volatile gas that evaporates during processing, leaving no residue in the hair.

The marketing message behind some new ammonia-free colours on the market is that Monoethanolamine (MEA) is a replacement for ammonia. This is not the case. MEA is actually more aggressive than ammonia because it lingers on the hair during, as well as after colouring, making hair dry and brittle.

Upon evaluation, one of our chemical supply companies states that ammonia-free tints and bleaches are categorically not as effective as ammonia based products.

The only real existing issue with ammonia based products is the inherent smell of the gaseous emissions. Ammonia-free companies have leveraged this point to sell the message that 'ammonia is harmful and damaging to the hair'. The science proves this is not the case.

We know for a fact that when hydrogen peroxide is mixed with ammonia you will get a result with better lift, better hair condition and greater longevity of colour than the permanent tints containing mostly MEA.

In fact if you choose a tint with 1 + 1 mixing of peroxide, that has a low percentage of ammonia, you will be using the best colour that is available on the market today! De Lorenzo has studied the science of hair colour for over 60 years and the results achieved with our professional Novacolor range speak for themselves!



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TOTAL COLOUR SOLUTIONS

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### FEATURES AND BENEFITS

- Ammonia is a liquefied gas and is the alkaline component in colour. Ammonia is volatile, so it evaporates during and after colouring and leaves no residue on hair
- MEA (Monoethanolamine) can stay on hair after colouring and make hair brittle and dry, causing damage and colour fade
- Ammonia is better than other alkalizers at providing more swelling, better penetration of dyestuffs and higher lift. Novacolor uses on 1.2% ammonia in the standard range (much lower than most). This reduces odour, irritation, sensitivity and skin staining
- MEA can provide the alkalinity but compared to ammonia, more MEA has to be used to achieve similar pH results. This means that although there is a reduced odour, the alkalinity of the product is and remains quite high during and after the process
- Ammonia is actually better for powder lightening, lifting, colour delivery, longevity of colour and the health of hair

NOTE: Novacolor contains a very small amount of MEA used in manufacture to dissolve some of the ingredients.

### AMMONIA LEVELS IN NOVACOLOR

Novacolor standard range	1.2%
Novacolor Blondes	1.95%
Novacolor ULBM	2.7%
Novacolor Ice Series	2.9%
Novacolor Intense Reds	3.0%
Novacolor Blonde Booster	4.0%



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