

Can a chemical-free shampoo work as well as the average sudsmaker? **Megan Deem** dons her lab coat to find out

've mixed dropperfuls of pungent essential oils with sea salt and called it a bath soak. One ambitious afternoon, I transformed strawberries and oatmeal into face masks and hair treatments in a (failed) bid to establish a 100-percent-natural beauty regimen. The point is, I'm not a chemist, but I do have what I'll call a "product development background." Which comes in handy when Mia West from Eufora hair care in San Diego calls to see if I'll help the company create a clarifying shampoo. And not an it-could-be-dish-detergent sudser, either-a good-for-theearth version that even your vegan cousin would approve of.

Eufora also promises to donate \$1 from every bottle of the shampoo sold to the charity of ELLE's choice. We go with Stop-GlobalWarming.org, founded by this issue's guest editor, Laurie David. Clearly, our creation will have to uphold certain standards.

Which presents a problem—at least to

me. When I'd read the news years ago that certain foaming agents such as sodium lauryl sulfate could maybe, possibly, lead to liver toxicity, I had swapped my untilthat-point perfectly serviceable but now potentially questionable shampoo for one made with a natural lather-builder. And it sucked. As did the alternatives I sampled. All turned my hair greasy and dull. To my mind, natural and clarifying couldn't be in the same sentence, much less product. It would be like linking Dita Von Teese with low-maintenance.

But who doesn't love a challenge? Eufora had signed the Campaign for Safe Cosmetics Compact, pledging not to formulate using chemicals suspected of causing health issues, such as cancer or birth defects. No phthalates (plasticizers tied to endocrine disruption), no petrochemicals (crude oil derivatives that may contain carcinogens), no parabens (a chemical preservative), and no sulfates. To be fair, the Food and Drug Administration points out that all these ingredients have been used for decades with

no large-scale side effects reported.

Before our first conference call, I research oils with purifying abilities. My list includes lemongrass, yarrow, and citronella. But as it turns out, essential oils can strip dye—which I have in abundance in my "blond" hair. Oops. (They're okay for scenting shampoo though, as that doesn't take much.)

After establishing what we can't put in our shampoo (and its postconsumer recycled plastic bottles), Beth Bewley, who owns Eufora with her husband, Don Bewley, and I discuss what definitely has to make it into the final formulation. Widely used, chelators encapsulate other particles, such as heavy metals, then are easily rinsed away. Our shampoo needs chelators—specifically, a biodegradable form new to hair care, Natrlquest E30.

We also have to develop the fragrance. I end up with seven small brown glass vials, each marked with a number. For nearly a week, everyone who comes into my office votes on her favorite. When the dust settles, a minty blend (A-#319-613) is the people's choice.

The trial shampoo bottle that arrives a week later is like a blind date. The promise of everlasting love is there, but you could just as easily find yourself tossing his number in disgust. To my overwhelming relief, our product is incredibly foamy, like a "real" shampoo. After washing with it, my roots aren't greasy. Other testers describe the effects as "light," "not dry," and "not dirty at all."

But those are just opinions. For incontrovertible facts, Don brings hair samples taken before and after shampooing to a chemist. The initial strands are covered with build-up, as expected. After washing, the shafts are 30 percent thinner—a good thing, as it means the strands are back to their normal, clean size.

For a name, we turn to readers on ELLE.com, who enter suggestions like Root Awakening. The Bewleys decide to add our creation to their existing Urgent Repair line. After the votes are tallied, Detoxify, submitted by hairstylist Nicole Bratt-Maloney of Grass Valley, California, wins. I present Eufora Urgent Repair Shampoo, A Detoxifying Cleansing Treatment. Bratt-Maloney gets \$500 to donate to charity (she picks her local chapter of the Domestic Violence and Sexual Assault Coalition), as well as Eufora products worth \$500.

Companies spend years on product development. Our project, on counters this month, required just five months. More impressive, without resorting to blended berry hair smoothies, I've gotten natural into my head.