



## Soy Cleaner Solution

## THE CHALLENGE

Sofia's Soy Cleaner was founded to provide consumers with an environmentally friendly, non-hazardous cleaning product that performs as well as the cleaners commonly found in today's market. Sofia's is effective on a variety of surfaces including wood, concrete, tile, stone, brick, stainless steel, and aluminum. The cleaner is sold as a concentrate (customers dilute it with water), which translates into less packaging, adding a second "green" dimension to the biobased product.

The company sought two key improvements: (1) tuning the cleaner's components to alleviate supply chain restraints, thereby enabling the company to scale up production, and (2) reducing the amount of water in the concentrate, which limited the cleaner's efficiency.

## THE SOLUTION

Airable developed a matrix of formulations to identify promising approaches. Alternative formulation components were selected to alleviate the company's supply chain issues without compromising performance. Airable also adjusted the formula such that no water is added to the concentrate during production.



The result is a cleaner with significantly less water, better stability, and the same solubility and effectiveness as the original formulation. Reducing the amount of water yields additional benefits. Less water means less disposable packaging, waste generation, and in-home storage space. Shipping specifications will also be improved; a lower product weight will the lessen the environmental impact involved in delivering the material to customers. Airable Research Lab has partnered with Sofia's Soy Cleaner to improve a soy-based multi-use cleaning product. The company sought Airable's expertise to enhance the Sofia brand by designing a more scalable, stable, and efficient cleaner.

## THE VALUE

- Widely available materials
- Soy-based formulation
- Greater efficiency
- Improved stability
- Reduced packaging

As a chemical engineer, I know thoughtful development and extensive testing is at the heart of a quality product. In solving our surfactant and turbidity issues, Airable showed they are both technically competent and good stewards of customer problem-solving requirements.

We at Sofia's Soy Cleaners are grateful for the assistance they provided, and we look forward to our next opportunity to work with Airable.

Tom Wolski, Founder, Sofia's Soy Cleaner

