POLYMERA

We develop sustainable superabsorbent materials based on biopolymers produced by Antarctic bacteria.

Problem

Accumulation of Waste

Disposable hygiene products create a substantial environmental burden due to their non-biodegradable nature. Since they contain biological waste, their disposal is not only costly and complex but also non-recyclable.

Lack of Alternatives

Although there are eco-friendly options for the outer layers of these products, the superabsorbent core remains reliant on sodium polyacrylate, a non-biodegradable petroleum-based derivative.

Petroleum dependency of SAP

The use of sodium polyacrylate poses a reputational risk due to its unsustainable nature and an economic risk due to its dependence on volatile petroleum prices.

Trends

There is an emerging, unmet market demand for sustainable products. For example, 75% of new parents in the United States are actively looking to reduce the disposable diapers they discard.

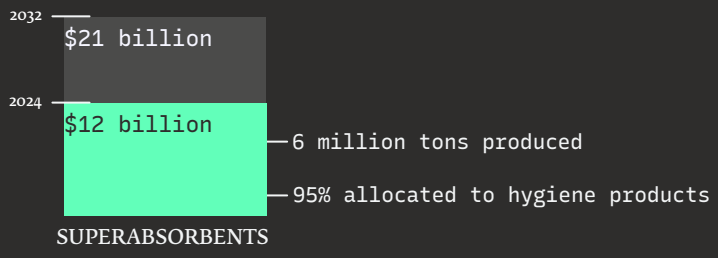
Solution

Our team is developing a natural superabsorbent biopolymer and a streamlined production process using fermentation:

- Biobased
- Competitive Absorption
- Biodegradable & Microplastic-free
- Scalable & Cost-competitive
- Industrial By-products as Nutrients for Fermentation

Market

We're targeting the global superabsorbent market, which has a compound annual growth rate of 7%. Growth trends are even stronger in biomaterials (20-30%), driven by the demand for more sustainable materials.



Primary Markets:

United States
European Union
Brazil

Go-to-market:

Focused on Biodegradable diapers initially

Our Team

We bring decades of experience with extremophile microorganisms, biopolymers, bioinformatics, and a solid engineering foundation to the development of science applied to industry.

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