

TECH OFFER

Anhydrous Beauty: The Dry Water Based Skincare Formulation



KEY INFORMATION

TECHNOLOGY CATEGORY:

Personal Care - Cosmetics & Hair

Personal Care - Wellness & Spa

Sustainability - Circular Economy

TECHNOLOGY READINESS LEVEL (TRL): **TRL4**

COUNTRY: **SINGAPORE**

ID NUMBER: **TO174600**

OVERVIEW

Sustainability in beauty is increasingly becoming a priority across the globe. The green consumerism trend is driving more cosmetics companies to seek natural, clean and environmentally friendly ingredients, packaging and green products. This expectation is pushing beauty brands towards new sustainable innovations, such as waterless beauty, upcycling, carbon neutrality and reusable or refillable packaging solutions to meet the demands from the environmentally conscious generation. This has been further emphasized due to the current pandemic situation.

The technology aims to create a moisture-rich cosmetic in waterless form. This revolutionary concept enables personalization of formulations to produce moisture-rich powder that can be transformed into a spreading cream and/or serum easily upon application. The waterless formulation can be readily customised and adapted to suit the specific needs of an identified target market. Due to its waterless nature, the downstream packaging of products comprising this formulation will involve little use of plastics and can be filled into many different types of packaging including recyclable paper, glass and aluminum

packaging, thereby reducing carbon footprint.

The technology provider is seeking codevelopment partners and potential licensees who have interests in leveraging on this waterless technology for supporting sustainability in personal care.

TECHNOLOGY FEATURES & SPECIFICATIONS

In the current skincare market, especially for the affluent demographics (millennials/Gen-Y, Gen-Z, Gen-A, etc) towards consumer preference for product differentiation, this presents an appealing choice to the Asian consumer market with the possibility of personalisation of skincare/cosmetics product configurations suited for their daily use.

The technology involves a revolutionary concept of dry water formulation technique for skincare/cosmetics products with the following features:

- Moisture-rich waterless formulation that transforms easily into cream/serum upon application
- Non-oily nor tacky feel during application
- Use of natural ingredients with higher concentration
- Customisable formulation for clean, green products development
- Waterless nature reduces overall amount of plastic packaging as compared to plastic containment for conventional water-based products
- Reduced packaging requirements allow product brand owners to have a wider choice of packaging selection including paper-based packaging which is not feasible for water-based products

POTENTIAL APPLICATIONS

According to Statista, there will be 3.5 billion people in the middle-class segment in Asia by 2030 with an estimated global spending amounting to USD3.5 billion. The Asian consumers are increasingly demanding for more sophisticated products and services as the growing middle class becomes more affluent. The Singapore skin care market is projected to reach USD271.2 million by end 2021. This presents an increase of 3.6% over 2020, and the sector is forecast to grow with an annual CAGR of 2.38% from 2021 to 2025. This trend is reflected in the wider global beauty and personal care market, which is currently at over USD511 billion with a projected 4.75% CAGR from 2021 to 2025.

The technology can be employed in the skin care, personal care, color cosmetic and pharmaceutical topical products. Products that can be marketed include personal care and skin care range, such as skin serum, cream foundation, ampoule, blusher, moisturizers, lotions, etc.

UNIQUE VALUE PROPOSITION

The technology brings the following value propositions:

Environment

- Reduce pollution by reducing usage of plastic packaging
- Promote clean, green, sustainable, cruelty- free, environmental friendly product
- Reduce carbon footprint

Cosmetic Manufacturers

- Customisable formulation
- Cold process – lower energy consumption used in production
- Wider choice of packaging material besides plastic (recyclable and reusable packaging including recyclable paper, glass or aluminium packaging)
- Longer shelf stability with use of natural ingredients

Brand and cosmetic product owners

- Novel formulation that supports latest market demands for clean, green and sustainable concept and use of ingredients

Consumers

- New appearance and sensorial experience for their skincare products
- High quality (concentration) products that are sustainable
- Convenient for travel in smaller, compact packaging in their carry-ons
- No issues with liquid leakage
- Adopting eco-conscious lifestyle through smaller carbon footprint products usage