Original Equipment Manufacturing

Contract Processing of Lyophilization



We perform lyophilization (Freeze-dried) processing for two-component cosmetics that are re-dissolved at the time of use, Freeze-dried lotions and essence containing collagen and other raw materials with less stability over time.





Add Component 1 to Component 2 at the time

7 Shake to dissolve.

3 Component 2 is ready to use as needed.

Formulation examples

Freeze-dried collagen raw materials

Prevents the denaturation of the collagen triple helix due to heat and retains its water retention capabilities.

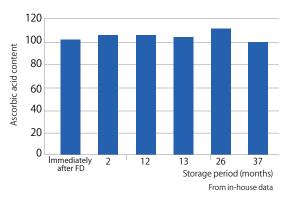
Freeze-dried vitamins

Maintains the activation of Vitamin C, which is unstable in aqueous solution.

- Suitable not only for regular use but also for intensive care concepts.
- Can incorporate large amounts of the raw materials.
- Stabilizes heat-sensitive ingredients and raw materials that are unstable over time.
- Dissolves just prior to use, giving a sense of freshness and making it seem handmade.
- The use of preservatives can be kept at a minimum.



Stability of ascorbic acid after freeze-drying (FD)



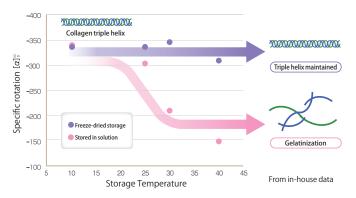
Test Method

The ascorbic acid content of a lotion containing ascorbic acid that is freeze-dried and stored at room temperature is measured.

Results

If the ascorbic acid content immediately after FD is considered to be 100%, it was stable with virtually no change after 37 months.

Thermal stability of the collagen triple helix after FD



Test Method

A 0.1% collagen triple helix solution and the same solution after FD were heated for one hour at 25° C, 30° C, and 40° C, and a polarimeter (DIP-370) was used to measure the specific rotation.

Results

Freeze-dried technology prevented the collagen triple helix from gelatinization due to heat, and maintained the highly moisturizing dimensional structure of the collagen triple helix.

Materialization Process

STEP1Planning

Based on our extensive experience working with numerous products, we make proposals in line with customer requests.

STEP3

Finalize specifications/ Estimate

Product specifications are finalized, and we draw up an estimate.

STEP 5

Manufacturing/ Delivery

Products in line with quality standards are delivered to designated locations in

STEP 2 Formulation design

Presentation of prototypes for preparation. We draw upon our wealth of insight based on more than 20 years of manufacturing experience.

STEP 4

Contract manufacturing agreement/Order

Upon signing legally binding contracts and agreements, customers place their orders.

Manufacturing Process



Prepare solution/Fill containers



Freeze-drying



Labeling/Testing



Shipment

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