ONE TOUCH – *Horizontal one-handed applicator device with tactile silicone applicator interface and hygienic dock station for cleaning, drying and sterilization*

Description of the Invention

The present invention relates to an applicator device configured for the application of cosmetic, dermatological, pharmaceutical or hygienic products.

More specifically, the invention relates to a horizontal, capless, one-hand operable device provided with a tactile applicator interface made of silicone and shaped to facilitate intuitive positioning on the lips or other areas of the skin.

The device comprises a body extending substantially in a horizontal direction and an applicator interface positioned on a front portion of the body.

The applicator interface is preferably made of a soft silicone material and is shaped substantially in the form of lips in order to conform to different lip shapes and improve the comfort and precision of application.

The applicator interface comprises a plurality of micro-perforations distributed across its surface, said micro-perforations being configured to release a cosmetic or dermatological product contained within the device.

The product is released through the micro-perforations when a slight manual pressure is applied to the device body.

The distribution and configuration of the micro-perforations allow a controlled, uniform and hygienic release of the product during application.

According to one embodiment of the invention, the device further comprises a mechanical dispensing system configured to deliver the product contained in an internal reservoir toward the applicator interface.

The dispensing system may include one or more elastic elements such as bellows, flexible chambers or deformable membranes, as well as internal conduits and inlet and outlet valves configured to regulate the flow of the product.

Activation of the dispensing system occurs through manual pressure exerted on the device body, thereby enabling controlled release of the product through the micro-perforations of the applicator interface.

In certain embodiments, the device comprises a replaceable or refillable reservoir containing the cosmetic or dermatological product.

In further embodiments, one or more components of the device, including the product reservoir and the external housing of the device, may be configured as modular and interchangeable elements.

This modular configuration allows replacement of the reservoir in order to use different cosmetic formulations, colors or product types, while also enabling aesthetic customization of the external housing.

Tactile Orientation and Ergonomic Configuration

The device is configured to allow intuitive orientation during use through tactile feedback, without requiring visual guidance.

In particular, the geometric configuration of the device body facilitates immediate tactile recognition of the correct orientation of the applicator.

The applicator interface is positioned on a substantially flat surface of the device body, while the remaining portion of the body has a generally cylindrical shape with a convex outer surface.

This difference in geometry between the flat applicator surface and the convex cylindrical surface allows the user to immediately identify the correct orientation of the device by touch.

Such configuration significantly reduces the risk of incorrect positioning of the applicator during use and allows accurate application of the product even without visual guidance.

As a result, the device may be used comfortably not only by sighted users but also by visually impaired or blind persons.

Applications of the Device

Although the device is primarily intended for the application of cosmetic products such as lipstick or lip balm, the invention is not limited to such applications.

The device may also be used for the application of semi-solid or fluid products intended for localized application on the skin.

Examples include dermatological preparations, pharmaceutical products, therapeutic balms, disinfectants, antiseptic compositions, or other hygienic formulations.

Hygienic Dock Station

According to a further aspect of the invention, the system may comprise a dock station configured to receive the applicator device after use.

The dock station is designed to perform cleaning, sterilization and drying of the applicator interface.

The internal walls of the dock station may comprise cleaning elements configured to remove residual product from the applicator surface.

In certain embodiments, the cleaning elements may include soft bristles, micro-brushes, or flexible silicone structures such as lamellae or petal-shaped elements.

When the device is inserted into the dock station, the applicator interface comes into contact with said cleaning elements, thereby allowing mechanical removal of residual product from the surface of the applicator.

The dock station may further comprise sterilization means, such as an ultraviolet (UV) light source configured to disinfect the applicator interface.

In some embodiments, the UV light source is automatically activated when the device is inserted into the dock station.

The dock station may additionally comprise drying means, such as a heating system configured to promote evaporation of residual moisture and facilitate drying of the applicator interface following cleaning and sterilization.