

How are cosmetic products contaminated?



- ① **Primary pollution:**
Environmental contamination during the manufacturing process
- ② **Secondary pollution:**
Environmental contamination after the product is opened

Potential risk of new preservatives

Limited number of bacteria at laboratory testing
Development of resistant bacteria

What are merits of using Parabens?

Paraben has been used for over 70 years, which is the good evidence that Paraben is effective against so many kinds of bacteria in nature and prevent the primary and secondary pollutions automatically.



Primary pollution

- environmental contamination during the manufacturing process

Preservatives in cosmetics prevent the growth of environmental bacteria. However, pollution in cosmetics at even 10 cfu/g* level might cause a growth of bacteria over time without preservatives. If bacteria does not grow within a day, but grows only after a few months later, it is impossible to know whether or not a product is polluted before shipment. For example, within 5,000 filled bottles, it is not possible to know which bottle is polluted. In this case, examining a sample to guarantee the quality of one whole lot, does not work.

*cfu=colony forming unit 10 cfu/g mean that 10 colony forms are found in 1g of sample.

Secondary pollution

- environmental contamination after the product is opened

After the product is opened to use, a microorganism such as a mold spore or bacterial spore can enter the package through the hands or the skin.

Some consumers after using the product, return the product to the original case, therefore, allowing an opportunity for bacteria and fungus to enter into the cosmetics. For example, Gram positive coccus and Gram positive bacillus can enter through the hands, Gram negative bacillus can also enter the cosmetics through household work along with mold and yeast airborne throughout the house.

The number of fungus in polluted products will be vast number over time, and it would cause quality deterioration such as change in color, change in odor, and separation before finishing the use of the products.

Potential risk of the newly launched preservatives

Limited number of bacteria at laboratory testing

There are so many kinds of bacteria in nature. However, as the number of bacteria for evaluation of a new preservative at laboratory testing is limited, the effect of a new preservative is not guaranteed after it is launched on the market, even if its effect is seen at laboratory testing.

Development of resistant bacteria

Generally resistant bacteria can be developed against new substances over time.