

## UNITED STATES PATENT OFFICE

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## COLOR-STABLE TOILET WATERS AND PERFUMES

Arthur Lawrence Fox, Short Hills, and Robert James Mehaffey, River Edge, N. J., assignors to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware

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This invention relates to cosmetic compositions and more particularly to toilet waters and perfumes containing certain additives employed for the purpose of stabilizing the color of such compositions.

Perfumes and toilet waters, including after-shave lotions, which are essentially alcohol or aqueous alcohol solutions of perfume ingredients, and with or without antiseptic ingredients, are in general mixtures which in most cases have added thereto a dye to impart an attractive color thereto and hence enhance their sales appeal. In the past these dye-containing mixtures have had a tendency to quickly fade after exposure to sunlight. This tendency of such mixtures to fade when exposed to sunlight for any period of time adversely affects their marketability.

It is therefore an object of this invention to provide cosmetic preparations of the type described above which have added thereto certain organic compounds which impart color stability to the compositions.

The above and related objects are accomplished in accordance with the present invention by adding to these compositions a small proportion of benzoyl resorcinol. The presence of this additive in a dye-containing perfume, toilet water, after-shave lotion, or the like, stabilizes the color thereof in a surprisingly effective manner.

It has been found that a proportion of benzoyl resorcinol ranging from about 0.005% by weight to about 0.25% by weight is sufficient to bring about a very efficient stability as to color in cosmetic compositions of the kind herein involved. While of course more of the additive could be used, such excess is not necessary for the desired result and hence is uneconomical.

Specific embodiments of the principle of the present invention are illustrated by the following examples:

## EXAMPLE I

## Toilet water

A composition having substantially the following formula:

|                                | Per cent by weight |
|--------------------------------|--------------------|
| Ethyl alcohol (S. D. 40) ..... | 54.800             |
| Perfume oil .....              | 1.000              |
| Benzoyl resorcinol .....       | 0.005              |
| Water .....                    | 42.395             |
| Glycerine .....                | 1.800              |
| FD&C Blue #1 .....             | Q. S.              |
| FD&C Yellow #5 .....           | Q. S.              |
|                                | 100.000            |

is made up by the following method:

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A conventional violet-type perfume oil and benzoyl resorcinol are dissolved in the alcohol base. The water and glycerine are weighed together and slowly added to the alcohol-, perfume- and benzoyl resorcinol-mixture. The desired colors in the conventional small proportions (Q. S.) are then added and the toilet water composition is chilled and filtered.

On testing the resulting product after 20 hours exposure in the fadeometer it showed little change in color. A control sample containing all the other ingredients except the benzoyl resorcinol (and compounded in the same manner) faded completely under the same conditions.

## EXAMPLE II

## Perfume

A composition having substantially the following formula:

|                                | Per cent by weight |
|--------------------------------|--------------------|
| Ethyl alcohol (S. D. 40) ..... | 87.995             |
| Perfume oil .....              | 12.                |
| Benzoyl resorcinol .....       | 0.005              |
| FD&C Blue #1 .....             | Q. S.              |
| FD&C Yellow #5 .....           | Q. S.              |
|                                | 100.000            |

is made up by essentially the same method as described above in Example I. The resulting perfume composition, which differs from that of Example I in the absence of water and glycerine and in the use of more alcohol and perfume oil, when tested against an otherwise similar control sample having no benzoyl resorcinol, again displays a high order of color stability notwithstanding the exposure in the fadeometer.

## EXAMPLE III

## After-shave lotion

A composition having substantially the following formula:

|                                | Per cent by weight |
|--------------------------------|--------------------|
| Ethyl alcohol (S. D. 40) ..... | 54.800             |
| Perfume oil .....              | 0.500              |
| Benzoyl resorcinol .....       | 0.005              |
| Boric acid (antiseptic) .....  | 0.250              |
| Water .....                    | 42.445             |
| Glycerine .....                | 2.000              |
| FD&C Blue #1 .....             | Q. S.              |
| FD&C Yellow #5 .....           | Q. S.              |
|                                | 100.000            |

is made up essentially as in Example I except that the boric acid component is first added to the

water with the glycerine. Fadeometer tests of this after-shave lotion show excellent color stability in comparison with the color stability of an otherwise similar composition not provided with the benzoyl resorcinol.

The nature of the dyes and perfumes employed in the composition of the present invention is of course not critical, and those skilled in the cosmetics art may select those components at will from the wide variety available in the art.

Other solvents may be substituted in whole or in part for the ethyl alcohol, but in general alcoholic solvents are preferred and of these ethyl alcohol is especially well adapted for use herein.

It has also been discovered that these perfume oil-alcohol mixtures, either aqueous or non-aqueous as the case may be, and containing the active benzoyl resorcinol stabilizing ingredient, have utility also as sunburn preventives. The benzoyl resorcinol apparently acts as an ultraviolet ray-absorber and prevents these harmful rays from burning the skin. This property of the benzoyl resorcinol additive apparently functions in the same manner when used in toilet waters and perfumes and the like, that is, it prevents the deleterious action of the ultra violet rays on the dyes contained in these mixtures thereby stabilizing them against fading.

What has been disclosed are specific embodiments of the present invention. Other embodiments apparent to one skilled in the art from these teachings are contemplated to be within

the spirit and scope of the invention as defined in the following claims.

What is claimed is:

1. A colored liquid cosmetic preparation comprising a major proportion of an alcohol-perfume oil mixture having a small amount of a normally light-sensitive dye incorporated therein, and from about 0.005% to 0.25% by weight to stabilize the color of said mixture, of benzoyl resorcinol.

2. A colored liquid toilet preparation comprising a solution of a major proportion of an alcohol-perfume oil-water mixture containing a normally light-sensitive dye therein and from about 0.005% to 0.25% by weight to stabilize the color of said mixture, of benzoyl resorcinol.

ARTHUR LAWRENCE FOX.  
ROBERT JAMES MEHAFFEY.

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