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An Overview on Loose Blush Powder

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ABSTRACT

This paper describes loose blush powder which is widely used as cosmetics now a days. Blushing powder is a common cosmetic item widely used. Cosmetics are intended to be rubbed, poured, sprinkled, sprayed, introduced in, or otherwise applied to any part of the human body for cleaning, protecting, beautifying, promoting attractiveness or altering appearance. The blushing powder is used to highlighting the make up while applied to cheeks. The choice of cosmetics is based on the skin types. There are various colours of blushing powder was available on the market. The choice of blushing powder was based upon the nature and colour of skin. There are three types of blushing powder such as, loose blush powder, compressed blush powder and cream blush. The various skin types as well as formulation and evaluation of loose blush powder was described in this review paper.

KEYWORD: loose powder, skin, colour, cosmetics, blush, beautifying

I. INTRODUCTION

A research on the consumer buying behaviour towards cosmetic products in 2015 in Pune city showed that of 200 consumers of cosmetic products, 60% preferred to buy organic cosmetics and 42.5% used the cosmetic products for beautify.[1] Cosmetics are any substance or unit doses intended to be applied on the entire exterior of the human body including teeth and mucous membrane around the mouth.

As per section 3 of the Drugs and Cosmetics Act 1940 and Rules 1945, cosmetics means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part there of for cleansing, beautifying, promoting attractiveness, or altering the appearance, and includes any article intended for use as a component of cosmetic.[2]

Powders are products that are intended to change the appearance of facial skin. They typically work by applying colour to the skin or through other effects such as altering the reflection of light or the shininess of the skin. Different types of powders used as cosmetics are foundation powder, blushing powder, H D powder, mineral powder, talcum powder, finishing powder, translucent powder, dewy powder, colour correcting powders etc. The pictorial representation different types of face powders are shown in figure 1.

Figure 1: Different types of face powders

The blushing powders are mainly used to highlighting the makeup. The blushing powders are classified into three types

- Loose powder blush
- Compact powder blush

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- Cream blush

The particle size of the compact powder is generally greater than that of the loose powder. The dust cloud may be so that of the handling or the use of loose powder so that the safe inhalation should be anticipated. The compact powder is expected to be safer than loose powder, due to the compressed format and the more practical application to the skin.[3]The cream blush has less shelf life than loose powder blush and compact powder blush. The pictorial representation of loose powder blush, compressed powder blush and cream blush are shown in the figure 2, figure 3, figure 4 respectively.

Figure 2: Loose powder blush

Figure 3: Compact powder blush

Figure 4: Cream blush

LOOSE BLUSH POWDER

This is one of the widely used type of blushing formulations. The selection of blushing preparation is based on skin type. Loose powder generally isn't used its own, apply it after foundation, to set the makeup on your skin and make it last longer. The skin type of persons is different in each other, so the colour and type on blush wash depends.

STRUCTURE OF SKIN

The skin or cutaneous membrane is the outermost layer which covers and protects the surface of the body from external environment. It is the complex and largest organ of the body in terms of both surface area and weight which unites with mucosal lining of the respiratory, digestive and urogenital tract to form a capsule which separate internal body surface from external environment. Normally the texture of skin very smooth but becomes rough due to numerous environmental and age factors. Cosmetics are the formulations used to beautifying the skin.[4]The functions of skin is protection, regulation of body temperature, excretion, information gathering, vitamin D production. The diagrammatic representation of layers of skin is shown in figure 5. The skin is broadly segregated into three layers such as,

- Epidermis
- Dermis
- Hypodermis

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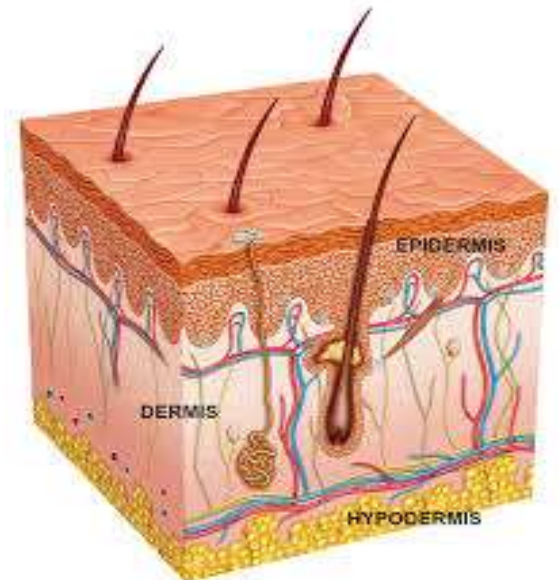

Figure 5: Diagrammatic representation of layers of skin

TYPES OF SKIN

There are five types of healthy skin.[5]

- Normal skin
- Oily skin
- Dry skin
- Combination skin (dry + oily)
- Sensitive skin

Normal skin

This skin is neither too dry nor too oily. It has regular texture, no imperfections and a clean, soft appearance and does not need special care. Loose powder blush is suitable for normal skin.

Oily skin

Oily skin has a porous, humid and bright appearance. It is caused by excessive fat production by sebaceous glands and usually determined by genetic or hormonal causes. Loose powder blush suitable for oily skin.

Dry skin

Dry skin is caused by external factors such as the weather, low air humidity, immersion in hot water and it usually temporary. Compact blush is more suitable than loose powder blush for dry skin.

Combination skin (dry + oily)

Based on its location, it presents characteristics of both dry and oily skin. Since distribution of sebaceous and sweat gland is not homogeneous. Both compact and loose powder blush are suitable for combination skin.

Sensitive skin

Sensitive skin is more prone to react to stimuli to which normal skin has no reaction. It is a fragile skin, usually accompanied by feelings of discomfort such as heat, tightness, redness or itching. It is a delicate skin that needs more care to fight dryness, roughness and usual appearance. Mineral based loose powder blush are suitable for sensitive skin.

PROPERTIES OF LOOSE BLUSH POWDER

- It should be homogenous.
- It should not cause local irritation.
- It should adhere easily and spread uniformly.
- It should cling to the skin on application.[6]
- It should have adsorptive and absorptive capacity.
- It should be non-irritant.
- It should free from grittiness.

ADVANTAGES OF LOOSEBLUSH POWDER

- Good chemical stability compared with cream blush.[7]
- Easy to carry.
- Suitable for most of all type skins.
- Easy to apply.
- Economical as compared to other formulations.

DISADVANTAGES OF LOOSE BLUSH POWDER

- Difficult to protect powder containing hydroscopic or aromatic materials from decomposition.
- Susceptible to physical instability.[8]
- Loss on application is higher.

PREPARATION OF LOOSEBLUSH POWDER

There are various methods are available for the formulation of loose powder.

Different methods and ingredients are used for the formulation. Some of them are,

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Method 1

Find a mixing container, pour beetroot or hibiscus powder (half teaspoon) into the mixing container

Break up any clumps find with fork, and grind it using a coffee grinder or a mortar and pestle

Add the arrowroot powder (half teaspoon) and mix everything together with a fork

If the blush is too dark, lighten it by adding more arrowroot powder

Add a little shimmer to the powder blush with ground ginger or ground nutmeg and mix the ingredients well

Add some essential oil (e.g., Chamomile, lavender, rose or vanilla), it helps the powder to stick better to the skin

Transfer to the container and labelled it.[9]

- Ground ginger will give a light-coloured shimmer.
- Ground nutmeg will give a darker shimmer.

Method 2

Amaranth red, oleum ricini, ascorbic acid, magnesium stearate, methyl paraben and talcum were accurately weighed

The weighed ingredients are mixed and grinded in a clean mortar until it becomes homogeneous and dry

Add flavouring agent and mix again until it become homogeneous and soft for about 15-20 min to disperse it completely

Transfer to tightly closed container and label.[10]

HOW TO APPLY BLUSH POWDER

Tie hair back when applying blush. Swirl the tip of a blush brush into the loose blush powder. Using gentle motions, swirl your brush around the blush for a few seconds, giving the powder a chance to build up on each brush hair. Then, blow or tap on brush to remove excess powder. Smile when applying blush to your cheeks. Smiling will bring these elements into focus, making the application process far easier. To apply the blush, tap the head of the brush onto your skin in small, dotting motions. The powder should go in the center of each area want to apply the rouge to. This method is known as stippling and will prevent you from adding too much makeup. Blend the blush into your skin using circular motions with the tip of your blush brush. Set the makeup with finishing powder. A pictorial representation of loose blush powder with blushing brush is shown in figure 6.

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Figure 6: Loose powder blush with blushing brush

LABEL OF LOOSE POWDER BLUSH

The label is an important thing in a formulation. The label should bear name and quantity of powder blush. It should have the ingredients with their quantity. It should have direction and caution.

Direction: APPLY WITH BRUSH.

Caution: FOR EXTERNAL USE ONLY.

DISCOUNTINUE USE IF RASH OR IRRITATION OCCURS.[11]

An example for the label of a loose powder blush was shown in figure 7.

Figure 7: Label of loose powder blush

DIFFERENT SHADES OF LOOSE BLUSH POWDER

Various shades of loose blush powders are available in market. The colour shades are varying with the skin tone. The different colour shades available in market are rosette, shaker rose, cameo, cordial, deep coral, Simeon, dune, red rose, new born, obsession, pink, sugar cookie, cupcake, pound cake, cinnamon bun, coffee cake etc. The pictorial representation of different colour shades of loose blush powder was shown in figure 8.

Figure 8: Different shades of loose blush powder

EVALUATION TESTS OF LOOSE POWDER BLUSH

- Physical characteristics

The colour, odour, appearance of the powder is evaluated by simple visualization.[12]

- pH

The Ph is a measure of the acidic or basic nature of the formulation. The pH of the loose powder blush is determined to avoid the irritation to the skin. The pH was determined by using pH meter.[13]

- Particle size

The particle size of loose powder blush was determined by using microscope and sieve analysis.

- Abrasiveness

It was studied by rubbing the powder on a surface and then studying the effect on the surface using microscope.[14]

- Bulk density (BD) and tapped density (TD)

The powder was passed through a no. 18 sieve into a pre-weighed 25 ml graduated cylinder with 0.5ml markings. The bulk volume was measured after manually tapping the cylinder two times on a flat table top surface. The tapped volume was measured with the tap density tester after tapping in increments of 500, 750 and 1250 taps with 250 drops per minute.[15]

Bulk density = Bulk mass/ Bulk volume

Tapped density = Mass of granules/ Volume of granules

- Angle of repose

The flow properties of powders can be studied by measuring angle of repose. It was determined by the funnel method. The funnel was

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fixed in place, 4cm above the bench surface. After the cone from 5g of sample was built, height of the granules forming the cone (h) and the radius (r) of the base were measured. The angle of repose was calculated as follows:

Angle of repose = $\tan^{-1}(h/r)$
Where,
h = height of the powder cone
r = radius of the powder cone

- Carr's index

The bulk and tapped densities were used to calculate Carr's compressibility index to provide measure of the flow properties and compressibility of powders.[16]

Carr's index = Tap density – bulk density/ tap density * 100

- Hausner ratio

It is indicative of flow properties. It is derived property from bulk and tapped density. Lower the Hausner ratio is indicating better flow whereas higher ratio indicates poor flow of granules.[17] Hausner ratio is calculated by the following formula:

Hausner ratio = Tap density/ Bulk density

- Moisture content

Percentage of moisture content is calculated by using formula:

% Moisture = Initial weight – final weight/ initial weight * 100

- Colour homogeneity test

Homogeneity test was done by applying the sample on a piece of glass or other suitable transparent material. The blushes should show a homogeneous arrangement and show no coarse grains.[18]

- Polishing test

The polishing test was carried out on all dosage forms in each formula. Each formula was applied to the inner arm three times to observe the colour.

- Colour stability test

The formulation stored at 8 ℃ and 30 ℃ were tested for the colour stability on the 1st, 7th, 14th, 21st, 28th days using the Dermalab combo by observing the * a value.[19]

- Hedonic test

The hedonic test was carried out visually on 20 panelists who had knowledge regarding the assessment method. Each panelist was requested to observe the appearance, texture, smell and colour when applied to the skin.[20]The panelists were requested to fill out the questionnaire column that had been given and gave a score as displayed in table 2.

Table 2: The preference point used in hedonic scale

Score	Explanation
9	Extremely like
8	Really like
7	Like
6	Fairy like
5	Neutral
4	Fairy dislike
3	Dislike
2	Really dislike
1	Extremely dislike

- Sterility test

The sterility test was carried out on soyabean-casein digestive medium. Which is suitable for the culture of both fungi and bacteria. The powder should be cultured on the media used and observing that whether there is any microbial contamination occur. The test is valid for 3-5 days.

II. DISCUSSION

The cosmetics are the agents which are used for the beautifying as well as treatment effect. The demand of cosmetics is increased day by day. The blushing powder having beautifying effect. There are three types of blushing powders are available in market like, loose powder blush, compact blush and cream blush. The choice of selection of blush should be depends on the type of skin. There are five types of skin such as dry skin, oily skin, combinational skin, normal skin and sensitive skin. There are various methods for the formulation of loose blush powder. The ingredients may vary in each method. The evaluation of blush must be carried out. For the evaluation of loose powder blush, it undergoes physical character test, pH, particle size, abrasiveness, bulk density, tapped density, angle of repose, moisture content etc. After passing the evaluation test it means that formatted

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loose blush was safer and it should be able to market.

III. CONCLUSION

The cosmetics are any substance intended to be applied on the entire exterior of the human body including teeth and mucous membrane around the mouth. The cosmetics used as protection to the skin and used as fashion and attracts peoples. The blushing powders are used to impart beautifying effect. Various colours of blush are available in market. The loose powder blush is suitable for the oily, natural, and combinational skin types. The loose powder blush has advantage of easy to apply and it is most stable dosage form. It should impart good colour homogeneity and smooth texture. Various evaluation tests are carried out for determining the safety and efficacy of the formulations.

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