

FORMULATION AND EVALUATION OF HERBAL DEODORANT

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ABSTRACT

Aim of the present research is to formulate herbal based deodorant using macerated alcoholic extract of curry leaves, neem leaves and methi seeds followed by investigating its long lasting efficacy against body odour. It is important conventional deodorant contains several ingredients of herbal complex like neem leaves, curry leaves and methi seeds. The determination of bacterial count showed that the deodorant formulation containing the herbal deodorant produced the smallest reduction in bacterial number and that is 3 active herbal deodorant preserved most skin flora through safety test confirmed the herbal deodorant to be safe to use as deodorant active the test is conducted. The herbal deodorant is effective and safe to use. It is evaluated on the basis of various parameters that is PH, viscosity, skin irritation, homogeneity. In the deodorant lesser the bad odour intensity is better the product efficacy concluded that herbal complex had shown excellent long lasting protection against bad odour.

Keywords: Curry leaf, Body odor, Long lasting protection, Herbal Complex, Deodorant

I. INTRODUCTION

Deodorants are substances applied to the body to affect body odor caused by bacterial growth and the smell associated with bacterial breakdown of sweat in armpits, feet and other areas of the body. Antiperspirants are typically applied to the underarms, while deodorants may also be used on feet and other areas in the form of body

sprays. Deodorants are classified and regulated as cosmetics by the U.S. Food and Drug Administration (FDA). Deodorants that act as antiperspirants are classified as drugs by the FDA.

DEFINITION:

“Herbaldeodorant is a substance extracted from natural ingredients (plants which are grown in **natural** environment in the absence of chemical pesticides and fertilizers) applied to the body to control body odor, which is caused due to the bacterial breakdown of perspiration in warm parts of the body.”

ADVANTAGES:

1. It stops the formation of bacteria that causes body odor.
2. Deodorant generally contains alcohol and some contains antimicrobial ingredients. This helps to reduce bacteria.
3. Deodorants are perfumed to mask odor caused by bacteria.
4. They are the best to keep you away from sweating.
5. Aluminum present in most of deodorants reacts with sweats to form a plug in sweat gland. These plugs decrease wetness and therefore decrease the chance for bacteria to grow.

DISADVANTAGES:

1. Using deodorant that contain aluminum may contribute the breast cancer development. If aluminum based compounds applied frequently to skin near the breast it may be absorbed into the skin and caused changes in estrogen levels.
2. They may cause irritation rashes allergic reaction.
3. Some deodorants may stain cloth.
- 4.They reduce body odor, deodorants have a few disadvantages, such as ineffectiveness, side effects and messiness.

PROPERTIES:

1. It should not be irritant to the skin.
2. It should not deteriorate clothing.
3. It should be safe and nontoxic.
4. Easy to use and adhere well on skin.
5. Mask body odor with perfume.
6. Absorbs perspiration or inhibit the activity of gram positive bacteria which causes body malodor.

TYPES OF DEODORANT

Before you choose a deodorant, get familiar with the choices. Some deodorants offer a very noticeable scent, while others may have no scent. Others may feel different when they are applied. Consider the options with your tween in order to make the best choice.

Aerosol: These deodorants usually spray on and have a powdery finish when dry. They offer very good protection, but the product may be cold when first applied. Aerosol deodorants are ideal for the gym or locker room. They can

be shared easily with others, as the applicator never touches the skin.

Roll-On: Roll-on deodorants are easy to apply, but because they are a liquid, they can be cool and wet when first applied. They usually offer good odor protection.

Gel or Cream: These deodorants are a thick liquid when applied, but usually dry clear. They are often very good at keeping body odor away.

Invisible Solid: Invisible solid deodorants are a solid, powdery stick that when applied is clear and dry. They are an ideal choice if your tween is worried about residue on their clothes.

Solid: Solid deodorants are also powdery and go on dry. But they may leave a bit of residue on clothing.

Crystal: Crystal deodorants or antiperspirants are made of natural mineral salts. They are a good choice for tweens who embrace natural products or who have very sensitive skin. They can be found in health food stores and online.

Wipes: Deodorant wipes are individually packed, single-use, and disposable. wipes. They are ideal for trips or for keeping on hand for those days when you forget to apply your regular deodorant. Your child may want to throw a few into their backpack or locker. Because they are individually wrapped, they can be shared with others. You can find deodorant wipes at your drug store or online.

Scented or Unscented: Whether your child chooses a scented or an unscented deodorant is really personal preference. If your tween already wears perfume or cologne, it might be best to choose an unscented deodorant so that you avoid competing scents or scents that don't work well together. Some tweens and teens have very strong opinions on this issue, so be sure to discuss before you purchase

II. METHOD OF PREPARATION OF FORMULATION

Collection:

Leaves of neem curry leaves and methi seed were collected from medicinal garden in month of septamber 2019. Lavendar oil as perfume were collected from local market and chemicals were collected from store room of college.

Preparation of Neem extracts:

Leaves of the Neem plants were collected and washed thoroughly with distilled water and shade dried for 10 days. Dried leaves were ground into powder form 50gm of powder imbibd with 300ml alcohol for 48 hr. maceration for 3 days' content were filtered by using simple filtration method and filtrates were collected in separately vessel. Filtration of extract was done by using simple filter paper and funnel. Evaporation is done by using heating mental filtrates were allowed to evaporate in evaporating pan at 60c temp. until the desire concentration of extract was obtained.

Preparation of Curry leaves extract

Leaves of the Curry plants were collected and washed thoroughly with distilled water and shade dried for 10 days. Dried leaves were ground into powder form 50gm of powder imbibd with 300ml alcohol for 48 hr. maceration for 3 days' content were filtered by using simple filtration method and filtrates were collected in separately vessel. Filtration of extract was done by using simple filter paper and funnel. Evaporation is done by using heating mental. Filtrates were allowed to evaporate in evaporating pan at

60c temp. until the desire concentration of extract was obtained.

Preparation of Methi seed:

Seed of the methi plants were collected and washed thoroughly with distilled water and shade dried for 10 days. Were ground into powder form 50gm of powder imbibed with 300ml alcohol for 48 hr. maceration for 3 days' content were filtered by using simple filtration method and filtrates were collected in separately vessel. Filtration of extract was done by using simple filter paper and funnel. Evaporation is done by using heating mental. Filtrates were allowed to evaporate in evaporating pan at 60c temp. until the desire concentration of extract was obtained.

III. PROCEDURE:

Product is prepared by keeping alcohol for maciration for 7 days with DEP 1%. After maturation Herbal complex is dissolved under continuous stirring followed by addiction of all remaining base ingredients except Perfume. Concentrate is then treated with charcoal & kept at chilling temperature overnight. Then concentrate is filtered & filled in container and passed for crimping.

IV.FORMULATION:

Current research is carried out by preparing alcoholic herbal based deodorant preparation by using Herbal complex & Base materials. Herbal complex is a combination of alcoholic Soxhlet extract of Curry leaf, Neem & Methi extract and Base materials contains humectants

Table No: 1 FORMULATION TABLE.

V. EVALUATION METHODS

Sr . No	Ingredients	Quantity taken (100ml)
1	Diethyl phthalate	1 ml
2	Herbal complex	14.5 gm
3	Deodorant base	2 ml
4	Perfume	Q.S
5	Ethyl alcohol	Up to 100 ml

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has been determined by pH meter and by using pH paper was found 5 .

Skin irritation test: Herbal deodorant is applied on tropical surface of body observed that deodorant do not produces any irritation effects on the skin. Deodorent do not produses any irritation to skin even after repetitive use.

VI. RESULT AND DISCUSSION

It is evaluated on the basis of various parameters that is PH, Viscosity, skin irritation, homogeneity. The long lasting efficacy of deodorant product formulated using herbal complex in alcoholic base was proved. The formulation is non-toxic due to natural extract of herbal complex has been used for prepration and having pleasant odor then lesser the bad odor intensity better the product efficacy.

VII.CONCLUSION AND SUMMARY

These research study clearly proved that the addition of herbal complex helps to prevent body odor with long lasting effect. This study confirms that sufficient dosage of macerated alcoholic extract of curry and neem leaves and

methi seed not only effectively prevents body bad odour but also provide long lasting efficacy.

It shows good bacterial activity. The deodorant lesser the bad odor intensity is better the product efficacy concluded that herbal complex had shown excellent long lasting protection against bad odor.

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