

Nano Gold Colour Transparent Shampoo Bar

DHULANI CHANDIMA

Science Technology Officer Sri Lanka

Abstract- *Transparent shampoo bar is good for the hair, because it contain aloe Vera gel and cinnamon oil. It also has more beneficial fibre and rich oil for the hair. It has moisture content that can act against various fungal diseases. Results showed high concentration of Aloe Vera gel and high concentration of cinnamon oil affected to the pH value and colour .Oil constitution was not effected any value of shampoo bar .Results showed that higher concentration of aloe Vera gel and cinnamon oil were added to the transparent shampoo bar affected to get bigger of the inhibitory diameter of Phytophthora cinnamomi and colletotium gloesporiodes. Many people like all the shampoo bar samples. Toanalyse this results C D and E samples were helped particles (rhinoceros) removed from scalp and reduced hair loss. All the shampoo sample had antimicrobial activity and transparency. No irritation detection in the skin all the samples of the shampoo bar.C D and E had more antimicrobial activity ,scalp particle removing activity and reducing hair loss because which contained high concentration of aloe Vera gel , castor oil and olive oil. Tranparent shampoo bar had Nano particles which white soap became gold colour by adding TEA and cinnamon oil.*

Indexed Terms- *Transparent soap production, Nano gold colour soap*

I. INTRODUCTION

Plants with different medicinal properties have been employed by traditional medical practice for the treatment of different disease conditions .The aloe Vera and cinnamon plant have been known and used for centuries for its health and beauty, medicinal and skin care properties. These plants adding to the shampoo bars foaming ability have been employed as soap for bathing and for treatment of skin and wound infections. Transparent shampoo bar is good for the

hair, because it contain aloe Vera gel and cinnamon oil. It also has more beneficial fibre and rich oil for the hair. It has moisture content that can act against various fungal diseases. Results showed high concentration of Aloe Vera gel and high concentration of cinnamon oil affected to the pH value and colour .Oil constitution was not effected any value of shampoo bar .Results showed that higher concentration of aloe Vera gel and cinnamon oil were added to the transparent shampoo bar affected to get bigger of the inhibitory diameter of Phytophthora cinnamomi and colletotium gloesporiodes. TransparentNano gold colour shampoo bar making formula has been developed.

II. MATERIAS AND METHOD

NaOH ,Aloeverage1,SLS,Water,Straric acid,Myristic acid, White Coconut oil, Olive oil ,Sorbitol, glycerine ,CDEA,CDEB.TEA,MPG,NA medium.

III. COLLECTION AND PROCESSING OF PLANT

Aloe barbandensis (Aloe Vera) leaves were collected in my home garden.

- Extraction
Peel of the leaf removed and jelly like substance found inside the leaf was extracted in to the beaker.

Phytophthora cinnamomi and colletotiumgloesporiodes sample obtained from cinnamon research institute of Sri Lanka were used to organism to investigate antifungal effect of shampoo bar.

- Research Design
Research design was used to analyse five treatment and five repetitions.

TABLE 1
FORMULATION OF MAKING SHAMPOO BAR

material	A	B	C	D	E
NaoH (g)	5	5	5	5	5
SLS(g)	5	5	5	5	5
Stearic Acid(g)	5	5	5	5	5
Aloe Vera gel	2	4	6	8	10
Meristic acid (g)	5	5	5	5	5
Glycerin(mL)	5	5	5	5	5
CDEA(mL)	1	1	1	1	1
CDEB(mL)	1	1	1	1	1
TEA(mL)	1	1	1	1	1
White coconut oil(mL)	25	20	15	15	0
Cinnamon oil(mL)	1	2	3	4	5
Castor oil(mL)	0	5	10	5	15
Olive oil(mL)	0	0	0	5	10
Sorbitol(mL)	5	5	5	5	5
Water(mL)	13	11	9	7	5
MPG(mL)	5	5	5	5	5

5 g of NaoH and SLS 5g powder were weighed into a clean beaker containing aloe Vera gel with water. Solution was stirred with glass rod until became clear solution.5g of Stearic acid and 5g of Meristic acid were weighed in to the beaker. Mixture was heated until became clear solution.25 mL of oil mixture was poured in to the melted Stearic acid mixture. This mixture was added to the NaoH mixture. Soap formed signed as end of the mixing process this mixture kept for 6 hours for harden.

Then 5mL of glycerine added and mixture was heated until all the soap is dissolved. Then 5mL of MPG was added and stirred until mixture was homogeneous. Then 5mL sorbitolwas added to the soap mixture .Then temperature was lowered 1 mL of TEA and cinnamon oil were added to the soap mixture. Soapmixture became golden colour and transparent. Bubbles were removed by glass rod in surface of the soap mixture. This mixture kept for 2 hours for harden.

Further analysis of shampoo bar transparency, pH, irritationtest, and antimicrobial activity

Colour and transparency of shampoo bar was done visually.

pH of soap was measured by using pH meter. Measurement of pH done by diluting 1 g of soap 10 mL of distilled water in a beaker .Then direct pH value was measured.

- Antimicrobial test
Phytophthora cinnamomi and collettoctiumgloesporiodes were grown medium of NA Then medium containing microbes attached to a paper disc and dipped solution of shampoo bar and incubated. Clear zones were investigated.

IV. RESULTS

TABLE II
EVALUATION OF SHAMPOO BAR

shampoo bar sample	pH Value	Transparency	Irritation test	Color	Aroma
A	6	Transparent	0	Golden yellow	Cinnamon scented
B	6	Transparent	0	Golden yellow	Cinnamon scented
C	7	Transparent	0	Golden yellow	Cinnamon scented
D	7.2	Transparent	0	Golden yellow (dark)	Cinnamon scented
E	8	Transparent	0	Golden yellow (dark)	Cinnamon scented

Results showed high concentration of Aloe Vera gel and high concentration of cinnamon oil affected to

the pH value and colour .Oil constitution was not effected any value of shampoo bar as in the

TABLE III
ANTIMIROBIAL EVALUATION TEST

Shampoo bar sample	Antimicrobial activity <i>Phytophthora cinnamomi</i> Clear zone diameter(mm)	Antimicrobial activity <i>colletoctium gloesporiodes</i> Clear zone diameter(mm)
A	14	13
B	15	14
C	15	15
D	22	24
E	28	26

Results showed that higher concentration of aloe Vera gel and cinnamon oil were added to the transparent shampoo bar affected to get bigger of the inhibitory diameter of *Phytophthora cinnamomi* and *colletoctium gloesporiodes* seen as table.

Transparent shampoo bars were given to a selected (50) person. After the month results were obtained

TABLE IV
PEOPLE EVALUATION TEST

Shampo o sample	That likes / dislike s	Irritatio n effect	Scalp particle remove d	Reducin g hair loss
A	50 like	0	35	32
B	50 like	0	45	37
C	50 like	0	43	40
D	50 like	0	42	47
E	50 like	0	50	48

Many people like all the shampoo samples to analyse this result C D and E samples were helped particles (rhinoceros) removed from scalp and reduced hair loss.

CONCLUSION

Results showed high concentration of Aloe Vera gel and high concentration of cinnamon oil affected to the pH value and colour .Oil constitution was not effected any value of shampoo bar .Results showed that higher concentration of aloe Vera gel and cinnamon oil were added to the transparent shampoo bar affected to get bigger of the inhibitory diameter of *Phytophthora cinnamomi* and *colletoctium gloesporiodes*. Many people like all the shampoo bar samples. Toanalyse this results C D and E samples were helped particles (rhinoceros) removed from scalp and reduced hair loss. All the shampoo sample have antimicrobial activity and transparency. No irritation detection in the skin all the samples of the shampoo bar.C D and E had more antimicrobial activity ,scalp particle removing activity and reducing hair loss because which contained high concentration of aloe Vera gel , castor oil and olive oil.Transparent shampoo bar had Nano particles which white soap became gold Nano colour by adding TEA and cinnamon oil.

REFERENCES

- [1] C Esimone, C Nworu, U Ekong, B Okereke. Evaluation of the antiseptic properties of *Cassia alata*-based herbal soap. The Internet Journal of Alternative Medicine. 2007 Volume 6 Number 1.
- [2] The making of Transparent Soap From Green Tea Extract Tuty Anggraini, Sahadi Didi Ismanto and Dahlia Faculty of Agricultural Technology, Andalas University, 25163 West Sumatra, Indonesia Vol.5 (2015) No. 4 ISSN: 2088-5334
- [3] Mabrouk, Suzanne T. (2005) Making Usable, Quality Opaque or Transparent Soap. J Chem Education, Vol. 82 No. 10, 1534-1537.
- [4] Richardson, W. D. (1908) Transparent Soap-A Supercooled Solution. 414-420
- [5] Richardson, W. D. (1908) Transparent Soap-A Supercooled Solution. 414-420 8
- [6] Zhu, S.; Heppenstall-Butler, M.; Butler, M. F.; Pudney, P. D. A.; Ferdinando, D.; Mutch, K. J. (2005) Acid Soap and Phase Behavior of Stearic Acid and Triethanolamine Stearate. J. Phys. Chem. 109, 11753-11761.
- [7] Fedor, Walter S.; Millar, John; Accola, A. J. (1960)