

DEVELOPMENT OF VEGETABLE BATH SOAP

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Abstract - Soap making isn't troublesome and is reasonable as a little scope business. It uses basic techniques and vegetable oils or animal fats as its ingredients, each of which is probably going to be locally accessible. In any case, it is increasingly troublesome to produce high quality hard cleanser (soap), which is important to compete with imported items or those created by enormous soap makers. There are also certain perils in delivering cleanser, which any potential maker must be aware of to keep away from injury. This specialized brief portrays the systems expected to make a variety of basic soap and incorporates various plans for various kinds of cleanser. The main ingredients added up in this project are the most commonly available vegetables like tomato, potato and moreover, the high utilization of citrus organic products, oranges in soap production, specifically creates a lot of citrus strip which happens in most cases of soap production process. In this way, it is important to enhance soap production with reduced amount of chemical ingredients helps easy marketing and increased customer attraction. Consenting to this pattern, this work was completed by using the extracts of tomato, potato, aloe vera. Results approved a high capability of the thought in the field of natural training, so it can be repeated in reasonable classes. It can likewise be helpful for squander the board, and it can bolster the advancement of network extends on a biological methodology

conflicts, Double boiling method is used. This method allows deep mixing of soap base with other ingredients.

1.1 Literature review

The author S. A. Zauro et al., carried out the process of soap production. The aim of the present studies is to prepare and analyse soap from locally available raw materials such as Shea butter oil (SBO), palm kernel oil (PKO) and plantain peels. The production process was carried out in Department of pure and Applied Chemistry, Usmanu Danfodiyo University, PMB 2346, Sokoto, Nigeria. Soap is a common cleansing agent. Many people have many different opinions on soap. Warra, considered it as cleaning agent, manufactured in granules, bars and liquid form obtained from by reacting salt of sodium or potassium of various fatty acids that are of natural origin. Soap has many applications like washing, bathing, medication etc.,

The authors Sandra Félix, Joana Araújo, Ana Maria Pires, Ana Cláudia Sousa researched for the production of the soap from green wastes, in other words agricultural wastes. The work was conducted in Universidade Atlântica – Centro de Estudos, Sociedade, Organizações e Bem-Estar (CESOB), Antiga Fábrica da Pólvora de Barcarena 2730-036 Barcarena, Oeiras, Portugal. The aim to obtain a useful, cheap and good quality green soap, using waste products as major raw materials. It is done not only to reduce the waste product of agriculture but also useful for the families with weak economy. It also helps in the reduction medical hazards of the society. The waste products that are used are the reuse of waste materials such as almond shells, orange peel and used cooking oil.

Key Words: Cleanser, limonene, peril, bolster, biological

1. INTRODUCTION

Soap is a salt of a fatty acid which was invented by Babylonians (proof exists). Soaps are generally used in households for personal cleaning, washing clothes, etc., Generally soaps are made by using oils, animal fats along with sodium hydroxide (Caustic soda) or potassium hydroxide (Caustic potash). These chemicals are made to react with animal fat (fat of rendered beef). The process through which soaps are produced is termed as "Saponification process". The reaction takes place by making triglycerides react with lye to form Glycerin and fatty acid salt. In our project soap has been prepared using the locally available agro products like tomato, potato and others using simple double boiling method.

When soap base is made to contact with the heat directly, it scorches and produces an unpleasant odour along with a blackish layer formation on top of it. To avoid such

2. MATERIAL AND METHODS

2.1 Materials:

The production of vegetable bath soap includes raw materials like tomato, potato, Aloe-vera and soap base. The things used for the manufacture of these products are mixer, refrigerator, induction stove and vessels were used. Instruments used for the analysis of soap properties are pH meter, beaker, measuring cylinder and weighing balance.

2.2 Methodology used

STEP 1:

- Weigh and take 100 g of tomato and potato each

STEP 2:

- Chop and grind it.
- Filter and extract the juice.

STEP 3:

- Freeze the extract into ice cubes at 0°C.

STEP 4:

- Melt the 100 g of soap base using double boiling method at 120°C.

Step 5:

- Add the extract ice cubes in the melted soap base and stir well.

STEP 6:

- Add 20 ml of aloe vera gel to the process.

STEP 7:

- Stir the mixture until it reaches a semi solid state.
- Transfer the liquid into a small container.
- Keep it at the room temperature until it reaches solid state

3. RESULT AND DISCUSSIONS

3.1 pH analysis:

The pH of the vegetable bath soap was found to be 8.24.

3.2 Sensory analysis:

The vegetable bath soap was given to 5 healthy people and tested for its appearance, colour, odour and overall acceptability.

CRITERIA	P ₁	P ₂	P ₃	P ₄	P ₅
APPEARANCE (5)	4	4	4	4	5
COLOUR (5)	5	2	4	5	4
ODOUR (5)	3	4	2	2	4
OVERALL ACCEPTABILITY (5)	4	3	4	5	3

Table-1: Score table for sensory analysis of vegetable bath soap

3.3 Foam analysis:

- Foam height was measured to be 16.3cm.
- Foam retention time = 14.8 minutes.

3.4 Moisture analysis:

5 g of soap was kept in the hot air oven for 2 hours at 103°C. The difference in before and after analysis was measured.

Moisture content = 3.26%

4. CONCLUSIONS

Soap has been a basic product used for household and personal cleaning for years. Researchers have revealed that a product like soap has been used in and around 2800 BC. Now-a-days, soap products contain lot of chemicals which de-firms the human skin and causes nil effects on skin but other ill effects. To overcome these issues this vegetable bath soap is prepared using commonly available market products. It aims in reducing the usage of chemicals in the preparation process of soap manufacture and improve the skin functions by increasing texture an moisture.

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