

# Formulation and Evaluation of Aloe vera containing herbal soap

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**Abstract:** Aloe vera is natural product which are used in prevention and treatment of various skin problems. Aloe vera is derived from Arabic words 'Aloe' means 'Shinning bitter substance' and 'Vera' means 'True'. It is belongs to the family of 'Alliaceae' . Aloe vera is also known as "Ghrit kumari" and many peoples which is used for wellness of health and medicinal purpose. It's involves the health benefits of wound healing ,treating burns,minimizing front bite damage ,protect skin damage from X-rays, Lung cancer,Reduce blood sugar in diabetes and improve immune system. Aloe vera soap as contains various medicinal properties like,anti-septic, anti-microbial , anti-viral ,anti-oxidant, anti-fungals . Aloe vera plant is triangular,fleshy leaves with serrated edges, yellow tubular flowers and fruits that contains numerous seeds. Each leafs composed of three layer: The first is inner clear gel that contains 99% water and rest is made of glucomannans,amino acids ,lipids, sterols,vitamins. The middle layer of latex which is the bitter yellow sap . The outer thick layer of 15 -20 cells called as rind . It is use for several skin disease like acane.

**Keywords:** Aloe vera,Herbals, Formulation, Evaluation

**Introduction:** The Herbal plant aloe vera of maximum 100 cm in height and mature in 5 to 6 years. Aloe vera is derived from Arabic words 'Aloe' means 'Shinning bitter substance' and 'Vera' means 'True'. It is used for host of purposes since the ancient Egyptians called plant of "Immortality". It is also none as 'Ghrit kumari' in hindi. Aloe vera leafs is use for cure sunburns, burns and skin desease. Aloe vera soap is used to skin care like acane , wound healing and protect sunburn of skin.

## Collection of Herbal plant Material:

The herbal aloe vera soap are prepared by various plants like Aloe vera gel, Olive oil, Coconut oil, sunflower oil, Castor oil etc.

## Aloe vera gel:

**Biological source:** It is collected from dried latex of leaf.

**Familly:** Lilaceae

## Morphology of Aloe vera:

**Height** - 60 to 100 cm

**Leaves** - Thick and fleshy

**Colour** - Green to grey green

**Width** – 10 cm



**Fig. Aloe vera gel**

**Uses :**

- a) It is used to cure skin wounds.
- b) It's boiled juice to treat hair falls.
- c) Aloe vera gel is used to protect radiation burn in skin.

**Olive oil:**

**Biological source:** It is liquid fat which is obtained for Olives.

**Family:** Oleaceae



**Fig.Olive oil**

**Uses:**

- a) Olive oil is used to prevent skin ageing.
- b) It is used as a moisturizer.
- c) It's used as a make up removal.

**Coconut oil:**

**Biological source:** It is obtained from matured coconut from *Cocos Nucifera* L. .

**Family:** Palmae

**Morphology of coconut oil:**

**Temperature** – Below 23 C

**Melting point** – 23 C – 26C

**Soluble at 60 C** - Alcohol and highly soluble in chloroform



**Fig.Coconut Oil**

**Uses:**

- a) Coconut oil is used as a moisturizer.
- b) It is used as a Body scrub.

**Sunflower Oil:**

**Biological source:** It is collected from the seeds of Sunflower.

**Family:** Asteraceae

**Uses:**

- a) Sunflower oil is mainly used for cooking oil.



**Fig. Sunflower Oil**

## **Castor Oil:**

**Biological source:** It is obtained from the pressing of seeds of castor oil plant ( *Ricinus Communis L.*).

**Family:** Euphorbiaceae

**Morphology of Castor oil:**

**Color** – Colorless

**Odour** – Faint

**Taste** – Acrid

**Soluble** – Alcohol and highly soluble in chloroform



**Fig. Castor oil**

## **Uses:**

- a) It is used to promote to the skin health.
- b) Castor oil is used to reduced Puffiness.

**Ingredient used in the formulation of aloe vera soap:**

| S NO. | Ingredients    | Quantity(gm) |
|-------|----------------|--------------|
| 1     | Distill Water  | 35.5gm       |
| 2     | NaOH           | 27.5gm       |
| 3     | fresh aloe gel | 28.5gm       |
| 4     | olive oil      | 85gm         |
| 5     | coconut oil    | 42.5gm       |
| 6     | sunflower oil  | 28.5gm       |
| 7     | Tallow         | 28.5gm       |
| 8     | castor oil     | 14gm         |

**Evolution of Herbal aloe vera soap:**

The evolution of herbal aloe vera soap are include such as physical paramerters, pH, stability, foam height, foam retention ,percentage (%) of alkaline free and alcohols insoluble matter.

**Physico-chemical parameters of formulation :**

| S NO. | Chemical parameter         | standard values |
|-------|----------------------------|-----------------|
| 1     | pH                         | 6.5- 7.5        |
| 2     | % free alkaline            | 0.25            |
| 3     | foam height(cm)            | 2.5- 3.0        |
| 4     | foam retention (min.)      | 0.5- 2.5        |
| 5     | alcohol insoluble matter   | 18.0            |
| 6     | high temperature stability | 45 C            |

**Conclusion:** In this review paper we are discussed about the formulation of herbal aloe vera soap to treat various skin related problems and promote the health of human body. At this aloe vera soap is most widely used to the skin irritations, acne, protect sunlight, face wash and as moisturizer.

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