IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Formulation And Evaluation Of Rose Soap

1Motherao Sakshi Madhav, 2Jogade Aishwarya Kachruji, 3Phapal Pankaja Hanuman

1Student , 2Student , 3Student

1Gurukrupa Institute of Pharmacy.,

2Gurukrupa Institute of Pharmacy.,

3Gurukrupa Institute of Pharmacy.

Abstract : The present study involves the formulation and evolution of a Natural Road soap using Ingredients known for their Skin beneficial properties. The primary objective was To create A moisturizing,soothing,gentle cleansing product Suitable for All skin types especially sensitive skin . Key Components Include Rose petals , oil Olive , Rosehip seed oil , Glycerin soap Base and rose keolin clay. The soap was preparing by using a Melt and pour technique, with rose oil extracted through steam
Distillation to retain its therapeutical properties. The final product Exhibited with a pleasant fragrance , a soft pink colour and a Natural pH is 7 , indicating its compatibility with most skin types. The formulation demonstrated moisturizing , anti inflammatory And anti oxidant effects , making it a suitable alternative to Commercially available synthetic soap. However, consideration Such as potential energy , cost of authentic ingredients and fragrance sensitivity were acknowledged . Overall , the rose
Soap successfully combined natural ingredients .

Supporting keywords

- Essential oil in skin care
- Anti inflammatory soap
- Moisturizing soap
- Skin friendly so soap
- Natural skin care
- pH balanced soap
- Rose petal soap
- Steam distillation Rose oil
- Soap for sensitive skin
- Natural soap formulation
- Herbal soap
- Rose soap
- Rose oil
- Glycerine soap base

- Rose keolin clay
- Olive oil in soap
- Rosehip seed oil
- Soap formulation

- Soap evaluation

- Introducation:

- Rose Soap : is a fragrant and luxurious cleansing product that incorporates the essence of roses.
- It is typically made using a combination of natural ingredients and essential oils extracted from rose petals. The soap offers a delightful floral aroma and possesses various beneficial properties for the skin.

- Rose soap is known for its numerous benefits for the skin.

- Fragrant and luxurious Rose Soap is renouned for its delightful floral scent, creting a sensory experience.

Natural Ingredients

- Many rose soaps are formulated with naturals ingredients like rose petals, essential oils, and rose water enhancing its cleansing and skin goothing properties.

Potential Benefits

Rose soap may help mositurise the skin, soothe irrition and promote a radiant complexion.

Ayurvedic principles

- Some rose soaps are rooted ayurvedic practices, emphasizing the use of Natural ingredients and their holistic benefits.

Variety & Formulations

- Rose Soaps can be found in diffferent forms, including bars, liquid soaps, and even handmade varieties, cateriang to various preferences.

Objective:

For rose soap formulation

- Cleansing and toning rose soap is formulated to remove dirt impurities and excess oil from the skin while maintaining its natural PH balance.

- Mositurizing and Hydrating – Rose soap often contains natural oils and glycerin, which help to preveinting alryness and keeping its feeling soft and gupple.

Sothing and calming

- Rose extracts especially essential oils, have calming properties that can help reduce redness, irrition and inflammation, making it suitable for sensitive skin.

Improve Skin tone and texture

- Some rose soap, like those containning suffron, are belived to help brtyhten and even out skin tone, potentially reducing the appearnce of blemishes a and dark spots.

- The can also help extoliate dea skin cells, revealing brither and more radiant skin.

Antimicrobial anti inflammotory

- Rose soap can have antimicrobial and antiinflammatory properties, which can be helpful in treating skin conditions like acne and reducing inflammation.

Fragrant Experience

- The Natural Fragrance of rose oil and extracts adds a luxurious and enjoyable sensory experience to the cleansing routine.

Ingredients:

Ingredient	**Use**
Rose Petals	Antioxidants, Mild exfoliant
Rose Oil	cterial, Anti- flammatory
Olive Oil	Moisturizing, rich in Vitamins A, D, E, And K
Rosehip Seed Oil	High in vitamins A & C, regenerative, fast-absorbing
Glycerine Soap Base	nt, Moisturizing, gentle Cleaner
Rose Kaoline Clay	Gentle detoxifier, mild exfoliant, soothes skin

Rose Petals:

Synonyms:

Rose petals are also known as *Gulab*, *Rosae petala*, *Rose Flower*, *R*

Family:

They belong to the Rosaceae family.

Geographical Sources:

Major sources include India, Iran, Turkey, Bulgaria, and Morocco.

Biological Sources:

it is form petals *Rosacentifolia belongs to the family of rosaceae*.

Chemical Constituents:

Contain flavonoids, terpenes, tannins, phenolic compounds, vitamin C, and essential oils

Rose Oil :

Synonyms:

Also known as *Gulab ka Tel, Attar of Rose, Rose Otto*, and *Rose Essential Oil*

Family:

Belongs to the Rosaceae family.

Geographical Sources:

Major producers include Bulgaria, Turkey, Iran, India, and Morocco. In India, Kannauj (Uttar Pradesh) is well known for traditional rose oil distillation.

Biological Sources:

Extracted mainly from the petals of *Rosa damascena and Rosa centifolia.*

Chemical Constituents:

Contains citronellol, geraniol, nerol, phenyl ethyl alcohol, eugenol, and linalool, which contribute to its fragrance and therapeutic properties.

Olive Oil :

Synonyms:

Also known as *Jaitun ka Tel, Olea Oil, Sweet Oil, Olivefruit Oil.*

Family:

Belongs to the Oleaceae family.

Geographical Sources:

Primarily produced in Mediterranean countries like Spain, Italy, Greece, Turkey, and Tunisia.

Biological Sources:

Extracted from the fruits (drupes) of the *Olea europaea tree.*

Chemical Constituents:

Rich in oleic acid, linoleic acid, palmitic acid, tocopherols (Vitamin E), polyphenols, squalene, and phytosterols

Rosehip Seed Oil :

Synonyms:

Also known as *Rosehip Oil, rosa mosqueta Oil, Rosa Haq Oil*

Family:

Belongs to the Rosaceae family.

Geographical Sources:

Commonly sourced from Chile, Argentina, South Africa, and parts of Europe.

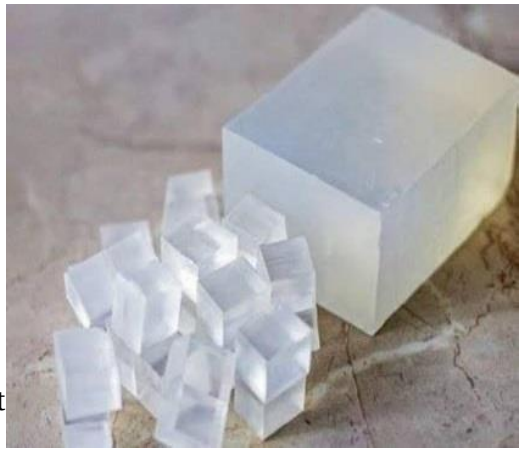
Biological Sources:

Extracted from the seeds of *Rosa canina, Rosa rubiginosa, and Rosa moschata species.*

Chemical Constituents:

Rich in essential fatty acids (linoleic acid, alpha-linolenic acid), vitamin A (retinoids), vitamin C, tocopherols (vitamin E), and polyphenols,

Glycerine Soap Base :



Synonyms:

Also known as *Transparent Soap Base, glycerol soap*

Family:

Belongs to the chemical class of polyols (sugar alcohols); not

Geographical Sources:

Commercially manufactured worldwide, with major production in India, USA, China, and Europe.

Biological Sources:

Derived from *vegetable oils (such as coconut, palm, or soybean oil) through saponification or transesterification processes.*

Chemical Constituents:

Contains glycerine (glycerol), sodium stearate, sodium laurate, propylene glycol, sorbitol, and water.

Rose Kaolin Clay :

Synonyms:

Also known as *Pink Clay, Rose Clay, Koolinite Clay*

Family:

Belongs to the phyllosilicate (clay mineral) group under the kaolinite family

Geographical Sources:

Mined in various countries including France, Australia, Brazil, China, and India.

Biological Sources:

Not of biological origin; it is a naturally occurring mineral clay formed through the weathering of aluminum silicate minerals.

Chemical Constituents:

Composed mainly of kaolinite, with natural iron oxide content giving it a pink hue. Also contains silica, aluminum oxide.

CULTIVATION OF INGREDIENTS :

Rose Petals :

1. **Climate and Soil Requirements:**

   Roses thrive in temperate to subtropical climates with moderate humidity.

   They require plenty of sunlight (at least 6 hours daily) for optimal blooming. The ideal temperature range is 15°C to 28°C. For soil,

2. **Propagation:**

   Roses are commonly propagated through cuttings, budding, or grafting.

- Stem cuttings (6–8 inches) taken from healthy, disease-free plants are most widely used for propagation.
- Budding and grafting are also practiced commercially to produce specific rose varieties on hardy rootstocks.

3. **Planting:**

   Planting is best done during the dormant season, typically from December to February in tropical regions

- Pits of about 45 cm x 45 cm x 45 cm are dug and filled with a mixture of farmyard manure and topsoil.
- A spacing of 75–90 cm between plants is generally maintained.
- After planting, light irrigation is provided, followed by regular watering to support establishment.

Rose Oil :

1. **Climate and Soil Requirements:**

   Rose oil-producing varieties like Rosa damascena grow best in cool to moderate climates with dry weather during flowering. Ideal temperature ranges from 15°C to 25°C, and high humidity or rainfall during blooming can reduce oil quality.

2. Propagation:

Propagation is mainly done through root suckers, cuttings, or budding:

- Root suckers from mature plants are commonly used for maintaining genetic purity.
- Stem cuttings (20–25 cm) taken during the dormant season are used for vegetative propagation.
- Budding is used when specific rose varieties need to be grafted onto hardy rootstocks.

3. Planting:

The best time for planting is late winter to early spring (January to February) in most regions.

- Pits of 60 cm x 60 cm x 60 cm are dug and filled with a mixture of topsoil, compost, and organic manure.
- Spacing is maintained at 1 m x 1 m or 1.2 m x 1.2 m, depending on the variety.
- Light irrigation is provided immediately after planting, with regular watering thereafter to support establishment and growth.

Olive Oil :

1. Climate and Soil Requirements:

Olive trees grow best in Mediterranean climates with hot, dry summers and mild, wet winters. They require full sunlight and temperatures between 15°C to 30°C. Ideal soil is well-drained, slightly alkaline with a pH of 6.5 to 8.5.

2. Propagation:

Olives are propagated through cuttings (12–15 cm long) or grafting onto rootstocks to maintain specific qualities.

3. Planting:

Planting is done in spring or autumn. Prepare planting holes of 60 cm x 60 cm x 60 cm and space trees 6–8 meters apart. Initial light irrigation is required, with minimal watering once trees are established.

Rosehip Seed Oil :

1. **Climate and Soil Requirements:**

Rosehip plants thrive in temperate climates with mild winters and cool, dry summers. They prefer well-drained, sandy-loam soils with a pH of 6.0 to 7.0. Full sunlight is necessary for optimal growth.

2. **Propagation:**

Rosehip plants are typically propagated through seed sowing, cuttings, or root suckers. Cuttings are most commonly used for faster, more reliable results.

3. **Planting:**

Planting is best done in early spring. Prepare 30 cm x 30 cm planting holes, with plants spaced about 1 meter apart. Ensure good soil drainage and provide moderate watering during establishment.

Glycerine Soap Base :

1. **Climate and Soil Requirements:**

Glycerine soap base is not grown but manufactured in controlled conditions. The ideal climate for production is temperate with stable, dry conditions.

2. **Propagation:**

Since glycerine soap base is a synthetic product, propagation is not applicable. It is made through saponification, where oils or fats are combined with an alkali to produce soap.

3. **Planting:**

As a manufactured product, glycerine soap base doesn't require planting. It is created in soap-making facilities using processes like melt and pour, where the base is melted and then shaped into molds for use in soap production.

Rose Kaolin Clay :

1. **Climate and Soil Requirements:**

Rose Kaolin Clay is naturally occurring and does not require specific climate conditions for growth. It is found in regions with temperate climates and is mined from the earth rather than cultivated. Ideal areas are well-drained, slightly acidic to neutral soils.

2. **Propagation:**

As a mineral product, Rose Kaolin Clay does not propagate through traditional methods. It is extracted through mining and processing.

3. **Planting:**

There is no planting involved. Rose Kaolin Clay is mined from natural deposits, where it is then processed and purified for use in cosmetics, skincare, and other products.

Formula :

Ingredient	**Quantity**
Rose Petals	2-4 gm (Dried, Crushed)
Rose Oil	28 ml
Olive Oil	28 ml
Rosehip Seed Oil	0.25 ml

Glycerine Soap Base	Upto 453.6 gm
Rose Kaoline Clay	4 ml

Procedure :

Step:

- Melt the Glycerin soap base.
- Add rose petals, oils and clay.
- Pour into molds and allow to cool and hardern.

1. **Rose Oil Extraction** Steam Distillation

- This method is commonyl used to extract rose oil from rose petals.
- IT Involves passing steam through, the petals, which causes the essentials oil to vaporize and then candense, separating it from the water. This process yileds a high quality pure rose oil.

Other Methods While steam distillation in the most common, other methods like solvent extraction and macexation can also be used.

Melting and Mixing The Soap base is often melted and theo the rose oil or extract is mixed in along with other desired.

Ingredients Like Colorantg.

- Pouring and cooling The mixture is thea poured into molds and allowed to cool and harden

Advantages and Disadvantages :

Advantages :

- Rose Soap embraces Youthgul skin
- Brighten and tefeeshes the skin.
- Hydrates and mositurizes.
- Reduces redness and irritation
- Rose Soap redness wtinkles

- Antioxident
- Moisturizing properties
- Gentle on all skin type
- Smoothing
- Anti-Aging
- Cleansing
    - Wet Your Skin

Disadvantages:

1. **Skin Irritation or Allergies:** Some People may be allergic or sensitive to rose essential oil or synthetic Fragrances used in rose soap.
2. **Comedogenic Ingredients:** Some rose soaps may contain oils or additives that can clog pores leading to breaktouts, especially for acne-prone skin.
3. **Added Fragrance:** If Synthetic fragrances are used instead of natural rose oil, they may cause dryness or irritaion.
4. **High Price:** Authentic rose oil is expensive so high quality rose soap can be costly compared to regular soaps.
5. **Preservatives and Additives:** Commercial rose soaps might include preservatives, slfates or parabens which can be harsh on sensitive skin.
6. **Overpowering Scent:** The rose scent may be too strong or not appealing to eveyone.

Result :

The rose soap was succesfuly prepared using natural ingredients including rose petal, rose oil, olive oil, rosehip seed oil, glycerin soap base, rose kaolin clay, (As Per Formula Table).

Sr No.	**Parameter**	**Observation**
1	Colour	Light Pink
2	Odour	Pleasant
3	Shape	Rectangular
4	Texture	Smooth
5	pH	7
6	Foomability	Yes
7	Foam Type	Creamy, Soft Bubbles
8	Foam Volume	Moderate
9	Foam Stability	3-5 Min
10	Skin Compatibility	Gentle (suitable for most skin types)
11	Mosturizing effect	High

The above given table describes the colur odur, shape, texture, pH, Foamability, Foam Type, Foam Volume, Foam Stability, Skin Compatibility, Mosturizing efffect of the prepeared herbal soap. The Colour of formulation was light pink. The odour of formulation was Pleasant. The Shape was rectangular as per evaluation tes pH of formulation was 7 and suitable for most skin types.

CONCLUSION :

- Rose Soap offers a gentle and luxurious cleansing experience promoting skin hydration and potentially smoothing irriation or inflamed skin.

- Its Natural ingredients often including rose essential oil and rose water can also contribute to a refreshing fragernce and a calming effects rose soap is generaly considered a beneficial condition to skincare toutines.

REFERENCE:

1. Handmade soap book "By Melinda coss.
2. "Soap Natural soap making book for begineers" by kelly cable
3. "Beginning Cosmetic Chemistry" by perry romonowski and randy schueller
4. Natural soapmaking book by marin browning.
5. The Big Book of Homemade Products for skin, Health & Home Book by Jan Berry.
6. Britannica Book Written by A.S. Davidsohn
7. The Natural soap chef by Haidi Corley Barto.
8. International journal and vivek, T. In Ayurveda and Pharmacy.
9. Books: Kokate, C.K. Purohit, A.P. , Gokhale S.B.
10. Pharmacognosy, Nirali Prakashna

    Pattanayak, D., Nayak S, Formulation and Evaluation of Hearbal Soap.
11. Research Paper / Journals : "Formulatin and Evaluation of Herbal Soap",

    International Journal of Pharmacy And Pharmaceutical Sciences Vol 6 Issue 10.
12. Amit J., Subodh D., Alka G Pushpendra K., & Vivek

    T. (2010) Potential of herbs ascosmaeuticals, International Journal of Research in Ayurveda And Pharmacy (IJRAP)
13. Saxton, P.L. Jadhav H.R. Thakur D.P. & Nagappa, A.N. (2005) Cosmetics Potential of Herbal Extracs, Indian Jouranl of Natural Products and Resources (UNPR) Formerly Natural Product

    Radiance (NPR) 4(4), 315-231.