



MENTHA COOL FACE WASH

“Menthol Face wash: A Solution For Sensitive skin, Cooling Solution for Healthy Skin”.

AUTHOR :- 1. KISHOR NIVRUTTI DESHMUKH
2. SHUBHAM PRABHAKAR CHAVAN
3. DINESH RAVINDRA PAWAR
4. MR. SANAREHMAN MOMIN

GUIDE:- MR. MOHANMMAD AWAIS

COLLEGE:- Dr. Uttamrao Mahajan College Of B.Pharmacy, Chalisgaon

Abstract: Menthol is a Substance naturally Found in mint plants, such as pepper- mint and Supermint. menthol gives Cooling Sensation and used minor to pain and irritation. In pharmaceutical products menthol as a Flavouring agent, Cough drop beverage, candy and gum in also Cosmetic like, soap mask, oil, cream, Facewash etc. The menthol are relive to inflammation and may help our skin absorb acne-treating ingredient's with Smooth Skin, bedaze menthol is a monoterpene most often derived from pepper mint, that use in skin care and give unique cooling sensation on skin and then warm and cause counterirritant, menthol is documented skin sensitizer.as per WHO guidelines. menthol also intract with nicotine in the brain to enhance nicotine effect.

- **Key word:** Mentha piperita, mentha canadensis. Flavour cooling effects menthol.
- **Introduction:** Menthol Face wash is the products which is used to cleanse face without drying it out. It is also commonly known as “Menthol cleanser”. This product is found to be equally good for all skin type. A face wash is a mild cleanser that does the vital job of keeping skin clean, germ free, smooth and fresh and moisturizes the horny layer without any harshness to the skin. So that skin looks young and energetic. There are various types of herbal ingredients which can be used for manufacturing of menthol face wash. The items that are used to wash your face without drying it out are called face washes. The term "cleanser" is another prevalent name for it. It has been discovered that this product is suitable for all skin types. A Menthol cleanser removes dirt, makeup, and extra oil from your face. These contaminants are oil soluble. A facial wash can also be used to get rid of them, but its effectiveness might to be 100%. A face wash is a gentle cleanser that effectively moisturises the horny layer of the skin without causing any harm to the skin and performs the essential task of keeping skin clean, sterile, smooth, and fresh. So that the skin seems vibrant and youthful. A face wash(Menthol)is a facial care solution used to clean the skin on the face of makeup, dead skin cells, oil, grime, and other forms of pollutants. This aids in pore cleaning and shields the skin from conditions like acne. A cleanser,

toner, and moisturiser can all be used as part of a skin care daily routine. Menthol is an organic compound made synthetically or obtained from peppermint or mint oil.

➤ **Methodology**

➤ **About:**

❖ **Formula:** C₁₀H₂₀O

❖ **IUPAC ID:** (1R,2S,5R)-2-isopropyl-5-methylcyclohexanol

❖ **Molar mass:** 156.27 g/mol

❖ **Boiling point:** 214.6 °C (418.3 °F; 487.8 K)

❖ **Melting point:** 36–38 °C (97–100 °F; 309–311 K) racemic; 42–45 °C, (–)-isomer, α crystalline form

❖ **Solubility in water:** Slightly soluble, (–)-isomer

❖ **Density:** 0.890 g·cm⁻³, solid; (racemic or (–)-isomer)

❖ **MORPHOLOGY :-**

➤ **Biological source:** it is the oil obtained by the distillation of Peppermint.

➤ **Common name:** Peppermint.

➤ **Family:** Labiatae.

➤ **Part used:** Leaves.

➤ **Geographical source:** It is mainly found in Europe, United States, and also in damp places of England.

➤ **Cultivation and Collection:** Peppermint thrives best in a fairly warm, preferably moist climate, with well-drained, deep soils rich in humus. Peppermint will grow successfully, if once started into growth and carefully cultivated. The usual method of cultivation is

• **Other name:**

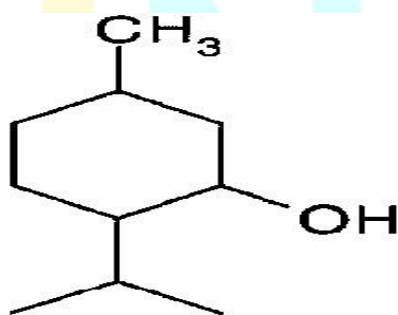
2-Isopropyl-5-methylcyclohexan-1-ol

2-Isopropyl-5-methylcyclohexanol

3-p-Menthanol Hexahydrothymol Menthomenthol Peppermint camphor

Chemical formula:

Menthol



MORPHOLOGICAL CHARACTERS :-

• **Colour-** Light or dark green with purplish tinge

• **Odour:** aromatic characteristic

• **Taste:** aromatic followed by cooling sensation

• **Stem:** - Herbaceous, perennial, Quadrangular, Green to dark purple, Nearly glabrous, with scattered deflected hairs.

- **Leaves:** - opposite decussate, petiolate
- **Shape** - ovate and lanceolate
- **upper surface:** dark green nearly glabrous
- **lower surface:** light green, hairy on the veins
- **Apex:** acute
- **Base:** acute or rounded
- **Margin:** sharply serrate
- **Petiole:** long slightly hairy

CHEMICAL CONSTITUENTS

- Volatile oil (0.7-1.5%) contains free Menthol (78%)
- Menthol esters (20%).
- Other important constituents are menthol furan, menthone, methyl acetate, methyl isovalerate, jasmone and other derivatives like cincole, limonene, isopulegone, camphene. Menthol furan is responsible for bad odour due to resinification.
- Tannins (6 to 12%)
- Flavonoids.

Ajwain plant:-



ISOLATION: It is processes of separation of single or desired compound from the mixture of compound present in extract.

The menthol is isolate two method

1. Steam Distillation. 2. Hydro – Distillation.

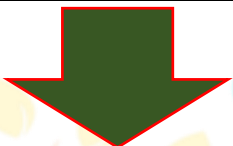
1. Steam Distillation: It is the simple distillation. It is the steam distillation is separation process for temperature – sensitive substance. It is the particular type of distillation. The aromatic

compound of the condensed liquid phase contains vaporized water vapour with required compounds, and they are placed in a condensation flask that is placed nearby. Now distillation takes place at a lower temperature. Steam distillation can be applied in case the substance is very sensitive to heat. Vapours are condensed after the distillation process.

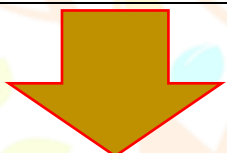
2. Hydro Distillation: It is the oldest method of distillation. In the hydro distillation method in have the chemical constituent separate out from the help to sxhleot apparatus. The extraction oil from different part of plant such as leaf, leave, woods and flower.

1. The process of isolation and extraction.

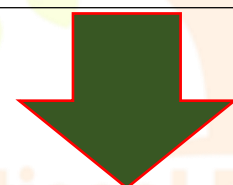
Take 250 gm of leaf bishops weed palce in to an extraction thimbal (roud bottam plask)



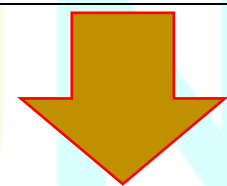
Extraction with 50ml lab solvent.(as alcohol) add in RBF and RBF Attach in codenser and set the Soxhlet assembly



The Soxhlet set as the electrical water bath and provide the heat,Soxhlet extraction method continually for 4 over a water bath



The extract was evaporated produce the vapor and this vapor convert the water droplet or oil droplet



Menthol oil is store the Soxhlet tube and collect the suitable well close container produce lable this container and submit.

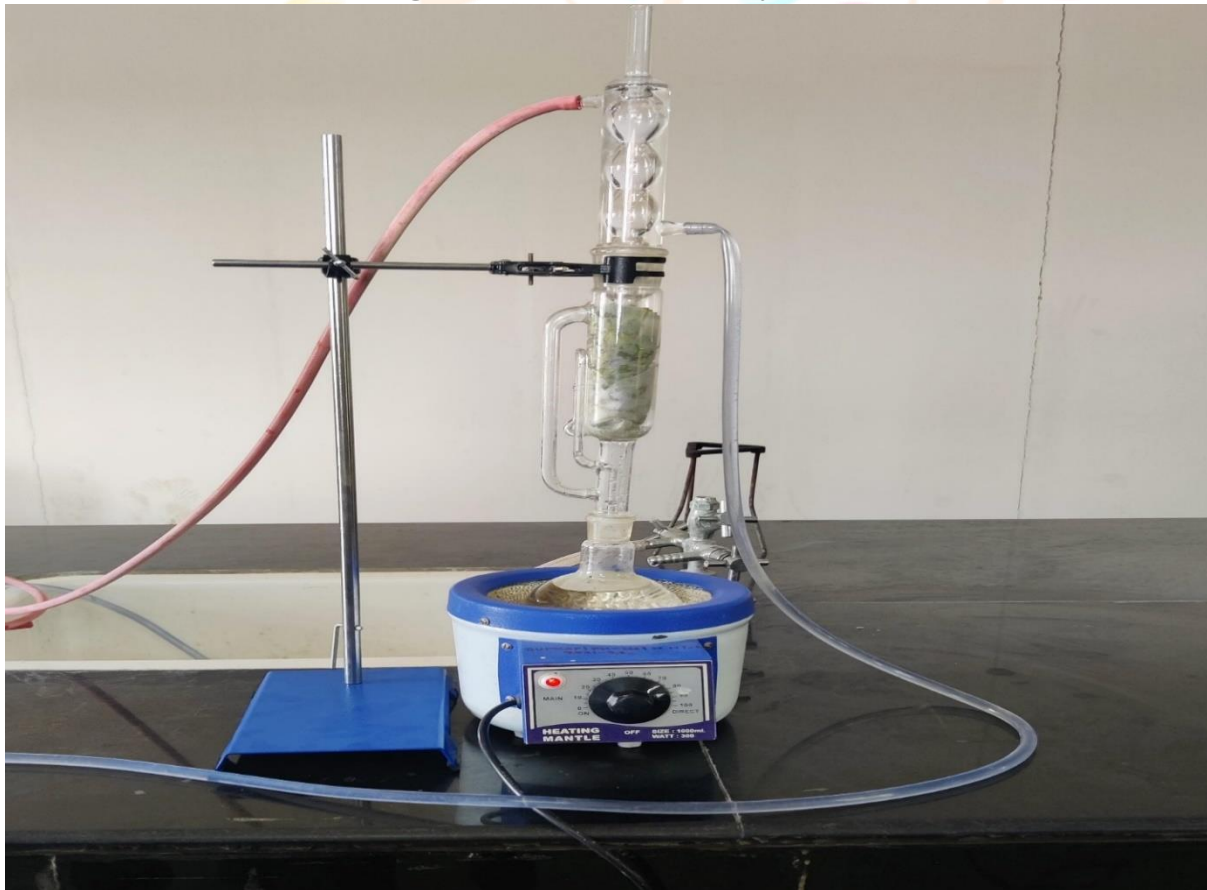
IDENTIFICATION:-

- 5drop-of-sample
 \oplus
 5ml of nitric acid
 \updownarrow Heated (water bath)
 Blue colour obtained

↑↓
After some time
Yellow colour are produce
(which indicate the precence of menthol).

2. Menthol +H₂S₀4+ Vanillin
↑↓
Orange /Yellow colour
↑↓ Add H₂o
Produce orange colour

Fig;- Soxhlet assembly



❖ **ANALYSIS :-**

- ❖ 1.By TLC method (thin layer chromatography)
- 2.Sample Preparation :- 1 ml of menthol is dissolve in 1ml of methanol.
- 3.Standard Sample:- menthol.
- 4.Stationary phase:- Silica gel- G.

5. Mobile phase:- pure chloroform.

6. Detecting agent :- 1% Vanillin- sulphuric acid reagent heat the plate 110c for 10 min

7. RF value:-0.48

COMPONANTS: (use for facewash)

1. Menthol oil.
2. xanthengum
3. Glycerine.
4. Citric acid.
5. Sodium laureth sulphate
6. Rose water.
7. water.
8. Menthol juice.

Procedure:

1. Clean all the apparatus.
2. firstly water and menthol oil add in beaker (A).and continuously stirre.
3. And beaker (B) xanthengum and glycerine.
4. after sum time add sodium lureth sulfate (SLS). In beaker (A).
5. Mix with beaker (A) and (B) and continuously shaking (15 min).
6. And maintain the PH add citric acid and add flavouring or colouring agents like rose water/menthol juice.
7. This preparation stable in 24 hour in suitable temperature.
8. This formulation fill in suitable container & labelled and submitted.

Formulation Table

SR No	INGRIDENTS	FORMULATION					ROLE
		F1	F2	F3	F4	F5	
1	Water	9ml	8ml	7.5ml	7.5ml	7.5ml	vehical
2	Menthol oil	7.5ml	8.5ml	9ml	9.5ml	9ml	Cooling agent

3	Xanthan gum	0.6gm	0.8gm	1.8gm	0.18gm	0.9gm	Thickening agent
4	Glycerine	3.5ml	3.3ml	4ml	5ml	4ml	Nourishing
5	Rose water	2.25ml	2ml	2.25ml	2.25ml	2.25ml	perfume
6	Sodium laureth sulfate	3gm	3.25gm	3gm	2.22gm	3gm	Foaming agent
7	Ajwain juice	3.7ml	3.5ml	2ml	2.9ml	2.9ml	Colouring agent
8	Citric acid	0.45gm	0.47gm	0.45gm	0.45gm	0.45gm	Adj PH
	Total	30ml	30ml	30ml	30ml	30ml	-

Procedure

1. weight the accurate all ingredient's. With proper handling and put into another site.
2. All the glassware or apparatus are washed with purified water & clean or dry it.
3. Take 50ml beaker the weighing chemicals are measured 7.5ml distilled water & 9ml menthol extract and stirred it.(mix well) give beaker name (A).
4. Take 50ml another beaker measured. the quantity of 5ml glycerine & 0.18ml xanthan gum mix well and give beaker name (B).
5. After that measured quantity of rose water put or fill in beaker (A). and mixed well.
6. After that measured quantity of sodium laureth sulfate (SLS), are fill into the beaker (A). and mix well.
7. After that beaker (A) solution measure the PH. With PH paper because menthol are acidic caused by irritation.
8. After that add 0.45gm of citric acid in beaker (A).for the purpose/ role of control PH.
9. The solution/beaker (A) is a put another site & solution beaker (B).mixed with.
10. The beaker (A) fill up into the beaker (B) solution and mixed well. After that mixed well add Ajwain juice for the colouring purpose with sq.
11. solution in beaker mixed well and rapped with polyethene paper & thread for 24hr the purpose of solution from a viscous or sticky from.
12. After that open the solution from viscous are put /or fill up into the suitable container with proper label & packaging with secondary packaging.

Fig:-Final formulation



EVALUATION: Evaluation test for menthol facewash

The prepared menthol facewash formulation was evaluated for the following parameter.

SR NO	TEST	OBSERVATION	INFERENCE
1	Color	Pale green	Test passed
2	odour	Characteristic	Test passed
3	Consistency	Good	Test passed
4	PH	4.7	Test passed
5	Spreadability	Good	Test passed
6	Washability	Good	Test passed
7	Grittiness	Good	Test passed
8	Foamability	Good	Test passed
9	Viscosity	8.3	Test passed
10	Irritability	NO	Test passed

EVALUATION OF FORMULATION:

1. PHYSICAL EVALUATION: Physical parameters such a colour, odour, appearance and consistency will be checked visually.

2. Washability:- Formulation will be applied on the skin and then extend of washing with water will be checked manually.

3.pH:- pH of 1% aqueous solution of the formulation will be measured by using a calibrated digital pH meter at constant temperature.

4.Spreadability:- Spreadability denotes the extent of area to which the gel readily spread on application to skin or the affected part.

The spreadability is expressed in terms of time in seconds taken by two slides to slip off from the gel, under certain load. Lesser the time for separation of two slides, better the spreadability.

preadability is calculated by using formula:-

$$S=MXL/T$$

where-Spreadability

L=length moved by glass slide

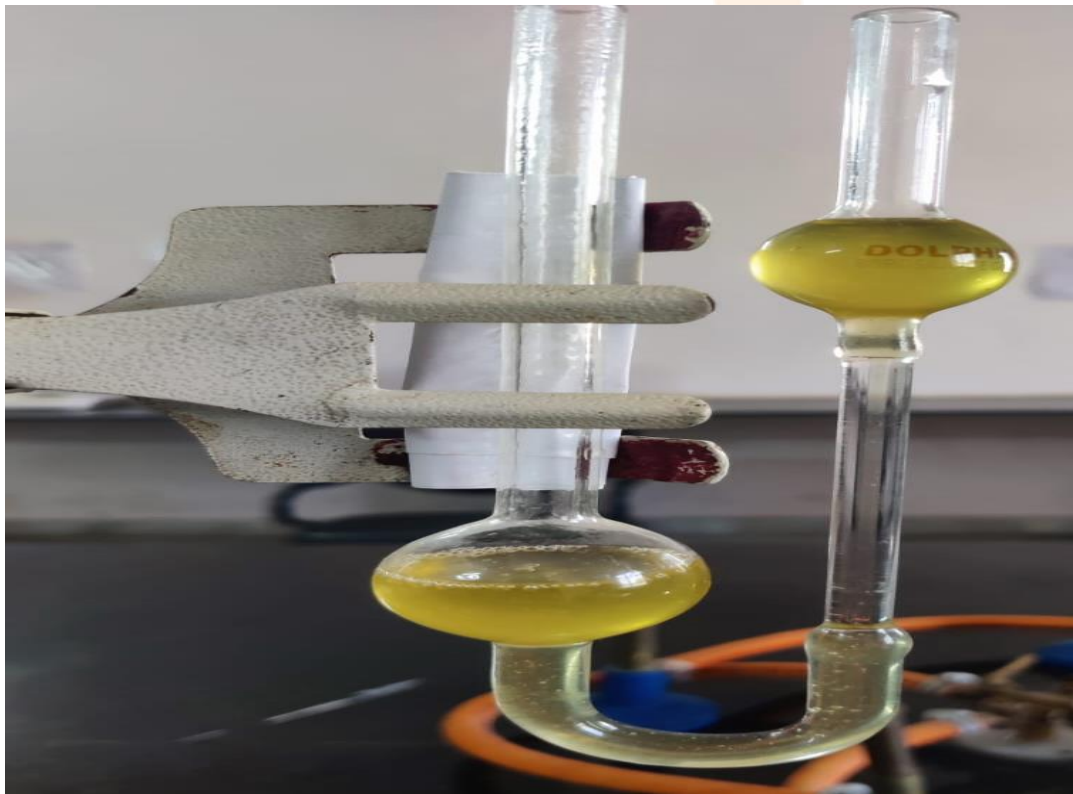
M=weight in the pan

T=Time taken to separate the slides completely from each other.

5 Foamability:- Small amount of gel will be taken in a beaker SLS Initial volume will be noted, beaker will be shaken for 10 time the final volume will be noted.

6.Viscosity:- About 25 ml of formulated sample will be taken in the beaker and checked on Ostwald's viscometer.

Fig :-



Labeling & packaging :- A package is a manufactured article which partially or totally encloses a quantity of products. Packaging is the art and science of operation involved in the the

safe delivery of product to the ultimate consumer in sound condition at minimum overall cost . including proper labelling and design In fact, Packaging sells what it protects and protects what it sells.

Fig :-Final product



Result & conclusion :- The present review focuses on the potential of herbal extracts for cosmetic purposes. It also makes an attempt to give scientific account of use of herbal extracts in cosmetics (Face wash). The addition of herbal extracts for therapeutic or for excipient purpose requires better understanding of the modern ingredients and herbal extracts. Face washes are used to refresh the muscles, keep the skin elastic, get rid of stuck-on grime, and enhance blood flow. It nourishes the skin on the face. The face wash gives the skin the necessary nutrition. It aids in the removal of scars, marks, and pimples. Skin is exfoliated by face washes, which also have a cooling, soothing, and soothing impact on the skin. A healthy looking skin is the base for a healthy looking body. It's really important that one takes care of their skin every now and then as it is the most frequently exposed part of our body during our day to day life and the fact that it's sensitive makes it more prone to wearing off. So select the best face wash that suits your face and make sure that you cleanse it twice a day.

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