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**FORMULATION OF ANTI ACNE CREAM USING BEETROOT,  
ALOVERA & POMOGRANATE**

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**<sup>1</sup>Payal Jagtap, <sup>2</sup>Aishwarya Jangam, <sup>3</sup>Pratiksha Kadam, <sup>\*4</sup>Dr. Gautam Palshikar**<sup>1,2,3</sup>Genba Sopanrao Moze College of Pharmacy, Wagholi, Pune, Maharashtra, India<sup>4</sup>Associate Professor, Department of Pharmacognosy, Genba Sopanrao Moze College of Pharmacy, Wagholi, Pune 412207, Maharashtra, India.

Article Received: 06 March 2026, Article Revised: 26 March 2026, Published on: 16 April 2026

**\*Corresponding Author: Dr. Gautam Palshikar**

Associate Professor, Department of Pharmacognosy, Genba Sopanrao Moze College of Pharmacy, Wagholi, Pune 412207, Maharashtra, India.

DOI: <https://doi-doi.org/101555/ijarp.9511>**ABSTRACT**

Acne through manner of method of definition is multifactorial persistent inflammatory disease of pilosebaceous units. Propionibacterium acnes and staphylococcus epidermidis are considered due to the fact the most pores and pores and skin bacteria that motive the formation of zits. Although zits does now not pose severe danger to popular health, it's some distance one of the most socially distressing conditions especially for adolescents. Acne vulgaris is a now no longer unusualplace human pores and pores and skin disease characterized through manner of method of areas of pores and pores and skin with seborrhoea (scaly purple pores and pores and skin), comedones (blackheads and whiteheads), papules (pinheads), nodules (large papules), acne and likely scarring. Demand of herbal formulations has been continuously growing withinside the worldwide market. The present artwork gives with the coaching and evaluation of the anti-zits cream containing extract of Pomegranate. The plant has been suggested withinside the literature having perfect anti- microbial, anti-oxidant and anti-inflammatory activity. Red beetroot is widely recognized for its immoderate percent of betalains, with notable functionality as sensible food additives due to their health- promoting properties.

**KEYWORD:** Anti-inflammatory, natural formulation, antioxidant, antimicrobial activity**1.1 INTRODUCTION:**

Introduction TO Cosmetic Industry: The splendor business enterprise describes the business

enterprise that manufactures and distributes splendor products. These encompass colour cosmetics, like foundation and mascara, pores and skin care consisting of moisturizers and cleansers, haircare consisting of shampoos, conditioners and hair colours, and toiletries consisting of bubble tub and soap. The manufacturing business enterprise is dominated through manner of method of a small extensive style of status quo businesses that originated withinside the early 20th century, but the distribution and sale of cosmetics is spread among a big style of diverse businesses.

## **1.2 Overview of drug and cosmetics Act 1940 & 1945:**

Overview of Drug and Cosmetic Act 1940 and Rules 1945 The Drugs and Cosmetics Act, 1940 is an act of the Parliament of India which regulates the import, manufacture and distribution of medicine in India. The primary aim of the act is to make sure that the medication and cosmetics presented in India are safe, effective and comply with nation splendid requirements. The splendor business enterprise is one of the most important and fast-growing sectors withinside the global economy, with a income of 100.49bn USD international (Statista, 2022). The number one product training included withinside the cosmetics market are pores and skin care, haircare, make-up, perfumes, toiletries and deodorants, and oral cosmetics, with pores and skin care due to the fact the principle elegance in 2021 (Statista, 2023). The foremost businesses of cosmetics and beauty products are specifically multi-national businesses, consisting of L'Oréal, which represented the principle manufacturer international in 2021, with a income of about 35bn U.S. dollars (Statista, 2023). But the arena is also characterized through manner of method of a splendid presence of Small and Medium Enterprises (SMEs), that in Europe had been 5800 in 2018 and, in some countries (e.g. France), represent 80% of all splendor manufacturers (Cosmetics Europe, 2019b).

### **Objectives of Drug and Cosmetic Act 1940-**

1. To modify the import, manufacture, distribution and sale of medication & cosmetics via licensing.
2. Manufacture, distribution and sale of medication and cosmetics with the resource of the usage of licensed dad and mom only.
3. To prevent substandard in pills, in all likelihood for retaining immoderate necessities of scientific remedy.
4. To modify the manufacture and sale of Ayurvedic, Siddha and Unani pills.
5. To installation Drugs Technical Advisory Board (DTAB) and Drugs Consultative

Committees (DCC) for Allopathic and allied pills and cosmetics.

**\* Drug & Cosmetic Act 1945 –**

The Drugs and Cosmetics Rules, 1945 are the suggestions which the government of India hooked up via the Drugs and Cosmetics Act, 1940. These suggestions classify pills beneathneath given schedules and present pointers for the storage, sale, display and prescription of on every occasion desk. The drug suggestions were promulgated in December 1945 and enforcement of these suggestions commenced out out in 1947. The suggestions embody of 19 Parts and 20 schedules. The detail IV, detail VII, detail VIII and detail IX states suggestions and policies for Import, manufacturing and sale of medication, natural and scientific devices. The detail X explains provisions without a doubt applicable to natural products. The Part X describes naming, container, labelling, necessities related to outstanding and sorting out of natural products.

**1.3 Classes of cosmetics prohibited from import, manufacture, keep and sale in India:**

1. Any pills or cosmetics which isn't of stylish outstanding.
2. Any misbranded or spurious or adulterated pills or cosmetics.
3. Any drug or cosmetics without import license for the import for which an import license is prescribed
4. Any patent or proprietary medicine, which not displayed the real system or list of active additives with quantities as regular with label.
5. Any drug which claims to remedy or prevent any infection or ailments specified in time desk J
6. Any splendor or drug containing any detail that is risky or harmful.
7. Any drug or splendor whose manufacture, sale, distribution and import of that is prohibited with the resource of the usage of rule made beneathneath this act except for the cause of examination test or analysis.
8. Drugs not labelled the prescribe. 9. Drugs after the expiry ,and those which does not meet the standards quality and purity specified in the schedule-F.3.

### 1.4 Offence and Penalties

Sr, no	Offence	Penalties	
		First conviction	Subsequent conviction
1	Import of adulterated or spurious drugs or cosmetics or any cosmetic containing any ingredient which may render it unsafe or harmful for the use under directions recommended.	Imprisonment upto 3 years and fine upto ₹5000.	Imprisonment upto 5 years or fine upto ₹10000 or both.
2	Import Of drug or cosmetic other than referred above the import of which is prohibited.	Imprisonment upto 6 months or fine upto ₹500 or both	Imprisonment upto 1 year or fine upto ₹1000 or both
3	Import of drug or cosmetic in contravention of any notification issued under section 10 – A	Imprisonment upto 3 years or fine upto ₹5000 or both	

#### 1. Conditions of license for Import, Manufacturers of Cosmeceuticals:

1. Provide and maintain staff, premises and equipment's (as per Schedule M and Schedule M3 for medical devices).
2. Test raw materials and final products of each batch either in the laboratory approved by the licensing authority.
3. Maintain records of manufacture and testing of each batch as per schedule U.
4. Allow Drug Inspector to enter and inspect, premises, plant, process of manufacture, means of standardization and tests.
5. Allow Drug Inspector to inspect all the registers and records maintained under the rules and to take samples of manufactured drugs.
6. Provide the required information to Drug Inspector for ascertaining compliance for provisions of Act and Rules.
7. Time to time report to the licensing authority: Changes in expert staff responsible for manufacture or testing. Material alterations in premises or plant. Samples of desired drugs and complete protocols of tests applied.
8. Not sell any batch, sample of which is submitted to the licensing authority, until receipt of Certificate of authorization is issued.
9. Withdraw from sale remainder of any batch or recall drugs already issued, if licensing authority directs to do so.
10. Not sell any drug manufactured under the license unless due precautions, necessary.
11. Comply with requirements of "Good Manufacturing Practices" as per schedule M.

### **11.1 Store and Sale of Cosmeceuticals: Wholesale, Retail and Restricted Sale Licenses-**

1. Wholesale: From stockists to shopkeepers.
2. Retail sale: From shopkeepers (drug store, chemists and druggists, pharmacy or dispensing chemist) to patients. Drug control organization issues two type of license, out of which one is Retail Drug License (RDL) to run a chemist shop, and it is issued to only those persons who possess degree or diploma in pharmacy from a recognized university on the payment of the requisite fees and other is Wholesale Drug License (WDL) which is issued to a person who is engaged in the business of wholesale of drugs and medicines

#### **2.1 Conditions of Whole Sale License:**

1. Area: Shall now not be an awful lot much less than 10 sq.m
2. Storage: It is vital to have a refrigerator and air conditioner on the premises because of the reality certain drugs such as vaccines, insulin injections etc. are needed to be stored withinside the refrigerator.
3. Competent Staff: The sale can be made each with the useful resource of the use of a registered pharmacist or each different prepared man or woman who have to be a graduate with three hundred and sixty five days experience in drugs or withinside the presence of any man or woman who has passed S.S.L.C having experience of four years in drugs, eparticularly accredited with the useful resource of the use of drug manipulate department.
4. License can be displayed in a great place.
5. The drugs can be sold from a duly licensed company or a manufacturer.
6. Supply of medicine can be made in competition to a cash memo. Carbon copies of the same can be preserved for 3 years from the date of closing entry.
7. Shall preserve the statistics of purchase, and bring all the registers and statistics withinside the direction of inspection. Records have to be preserved for 2 years from the closing entry.
8. An Inspection ee-e-book can be maintained in Form 35.
9. The drugs after expiry, Physician`s sample and the medication meant for Government supply, shall now not be stocked or sold.
10. A separate record can be maintained for the supply of Schedule X drugs, the copies of invoices of sale of such drugs to the retailer, can be forwarded to the Licensing authority.
11. No sale of any drug should be made for the purpose of resale to a person now not retaining the license to sell or distribute the medication.

## 12. DOCUMENTATION:

### 12.1 Documents Required for Obtaining Drug License:

1. Application Form.
2. Cover letter with the decision and designation of the applicant.
3. Copy of challan finished with the useful resource of the use of depositing costs for obtaining drug license.
4. Declaration in a prescribed manner.
5. Kite plan and area plan for the premises.
6. The basis of possession of premises.
7. In the case of rented property, ownership proof.
8. Document related to the constitution of business enterprise such as Incorporation certificate/ MOA (Memorandum of association)/AOA (Articles of association)/Partnership Deed.
9. Affidavit related to non-3 and their appointment letter in case of an employed man or woman.

### 9.1 Batch Formula Record:

A Batch Formula Record (BFR) is a file that data the producing commands and precise method for a batch of pharmaceutical merchandise. It's a key a part of proper production practices (GMP) and enables make sure first-class control, traceability, and consistency. A BFR generally consists of the subsequent statistics: Product name, Batch or lot number, Manufacturing date, Expiry date, Packaging info, Ingredients, Quantities, and Processing steps. Batch data are crucial due to the fact they: 1) Establish first-class requirements - Batch data file the producing technique, which may be used to set first-class requirements. 2) Provide traceability - Batch data permit producers to hint a product again to its uncooked substances and reproduce it if needed. three) Enhance product protection - Batch data assist producers perceive and don't forget dangerous or infected merchandise. four) Ensure regulatory compliance - Regulatory groups use batch data to make sure that first-class requirements and protection protocols are being followed. five) Improve efficiency - Detailed batch data can assist producers streamline their merchandise technique 6) Facilitate communication - Batch data can assist specific departments talk with every other.

## 9.2 Master Formula Record:

A Master Formula Record (MFR) is a file that consists of all of the statistics and strategies for creating a pharmaceutical product. It's a key a part of regulatory compliance and technique control. An MFR is created via way of means of the studies and improvement group and consists of info such as: Product name, Ingredients, Batch size, Manufacturing technique steps, Packaging technique, and Expected yields The MFR is used as a reference preferred for making ready batch production data. A Master Formula Record (MFR) in pharmacy is a complete file that gives targeted commands for making ready a selected medication. It consists of critical statistics such as:

- 1)Ingredients: List of all energetic and inactive components.
- 2)Quantities: Specific quantities of every component needed.
- 3)reparation Instructions: Step-via way of means of-step recommendations for compounding the medication.
- 4)Equipment: Tools and device required for preparation.
4. Stability Information: Data at the shelf existence and garage conditions.
5. Quality Control: Procedures for trying out and making sure the first-class of the very last product.

## 5.1 Quality Audit Report:

A pharmaceutical first-class audit is a scientific and impartial exam in which you'll set up whether or not the sports that your corporation plays are compliant with preferred regulations. You may also decide whether or not they're correctly carried out to obtain the specified objectives. Types of Audits withinside the Pharmaceutical Industry: In general, your pharmaceutical corporation will face 3 kinds of first-class audits: -

1. Internal audits
2. External audits
3. Unannounced audits three.

## 3.5. Distribution Report:

Maintenance of data of completed product is critical to facilitate entire don't forget of batch if necessary. Distribution13 data are written records associated with distribution of drug merchandise from the producer to the distributors. The entire records concerning all batches of drug merchandise ought to be maintained.

### 3.6 Handling Return Goods

Any fabric or devices (Finished products &/or intermediates) all all over again from the market may be stored in a separate area dedicated for storage of all all over again devices. Record all the statistics in Returned Goods Record. Inform the Quality Assurance department for evaluation of the all all over again devices. The Quality Assurance chemist shall examine the all all over again devices for the following:

1. Check the COA and extraordinary documents with the all all over again consignment
2. Condition of the packaging, carton and problem
3. Labelling statistics.

### 3.7 Recall:

Drug don't neglect about refers to the motion of putting off or retreating a batch of product from distribution or use, to be all all over again to the manufacturer. This motion is generally finished in times where.... deficiencies are placed withinside the safety, remarkable or efficacy of drugs. It is important to phrase that product take into account does now no longer encompass the ordinary removal of products that have passed their expiry period. The Organization of Pharmaceutical Producers of India (OPPD) defines take into account as, "An motion taken to treatment a problem with healing devices for which there are set up deficiencies in remarkable, efficacy or safety.

### 3.8 Waste Disposal:

Waste includes all items that people no longer have any use for, which they each intend to cast off or have already discarded. Additionally, wastes are such items which people are require to discard, as an instance thru manner of manner of lay because of their risky properties. Biomedical waste is drastically defined as any strong or liquid waste that is generated withinside the diagnosis, treatment of immunization of people or animals in research pertaining thereto, or withinside the producing or attempting out of natural fabric.

### 3.9 Vendor Evaluation Process: -

supplier evaluation is a tool for recording and score the general ordinary overall performance of a corporation in terms of masses of problems which also can moreover encompass delivery not unusualplace ordinary overall performance and the remarkable of the items. There are basically three particular forms of supplier evaluation. These are: Informal use of data After-The-Fact Evaluation Before-The-Fact Designed

1. Informal use of data: In this type of vender evaluation, data is accumulated from many

reassets consisting of journals, diaries, log books, or financial data, and statistics what happened withinside the past allow one to evaluate an event an brilliant way to make better options for the future.

2. After-The-fact-Evaluation: When event has happened, a manager also can moreover ask questions like What happened? How did it happen? Why did it succeed? or why did it fail? How nicely did it do? three.Before-The-Fact-Designed, evaluation: In this type of evaluation, the evaluator plans and starts offevolved offevolved offevolved gathering data early withinside the data of the project. Evaluation supplier skills is an example.

**6. LIST OF INGREDIENTS:**

1. Pomegranate Extract
2. Beetroot Extract
3. Alovera Extract
4. TryEthalomine
5. Methyle Paraben
6. Water
7. Mineral Oil
8. Beeswax
9. Rose Water

**7. List of Apparatus:**

Sr. No	Apparatus
1	Heating Mantle
2	Beeker, China dish
3	Measuring Cylinder
4	Water Bath
5	Stirrer, Strain

**8. CURRENT GOOD MANUFACTRING PRACTICESAS PER REGULATORY AUTHORITIES:**

FDA guarantees the exceptional of drug merchandise through cautiously tracking drug manufacturers` compliance with its Current Good Manufacturing Practice (CGMP) rules. The CGMP rules for capsules include minimal necessities for the methods, centers, and controls utilized in manufacturing, processing, and packing of a drug product. The rules make certain that a product is secure for use, and that it has the substances and power it claims to have .The approval system for brand new and typical drug advertising packages consists of a evaluation

of the manufacturer's compliance with the CGMPs. FDA assessors and investigators decide whether or not the organization has the vital centers, equipment, and cappelential to fabricate the drug it intends to market. Cosmetic Good Manufacturing Practices (GMP) relate to a fixed of comprehensive : hints that assist beauty companies continuously manufacture merchandise which are secure and of excessive exceptional. The word 'beauty' right here refers to items or substances supposed to alter, enhance, cleanse, or groom one's face or frame. They can variety from make-up and fragrances to merchandise which includes soap, lip balms, bathe gels, creams, lotions, frame powders, and hair merchandise. Apart from cosmetics, Good Manufacturing Practices additionally exist for different patron merchandise consisting of food, capsules, and supplements. GMP is now and again additionally called 'cGMP'. This refers to present day Good Manufacturing Practices, which emphasizes the want for organizations to undertake equipment and technology that areconsistent with cutting-edge standards. As its call implies, GMPs are worried with the producing or manufacturing strategies that effect the safety, consistency, and exceptional of the quit product. Every beauty commercial enterprise has a duty to make sure that merchandise created and in the end offered are secure, effective, and of continuously excessive exceptional. This want is related to numerous rules that govern the sale of beauty merchandise. For instance, withinside the US, the Federal Food, Drug and Cosmetic Act (Section 301) enforced through the FDA forbids the sale of beauty merchandise which are "adulterated" or "misbranded".

In Canada, the Food and Drugs Act (Sections sixteen and 18) states that cosmetics offered have to be produced and saved in clean, hygienic environments. Safety refers back to the prevention of accidental contamination, spoilage, or misuse of very last merchandise that can purpose unwanted reactions and different fitness effects. It can contain practices which includes sourcing uncooked substances from a good supplier, making sure centers are wiped clean appropriately, teaching personnel approximately normal hand washing, and proofreading labels earlier than printing. For example, the system used, the kinds of uncooked substances selected, the sanitation protocols followed, and the technical cappelential of the beauty chemist are simply a number of the variables which can affect product exceptional. Each, if now no longer controlled, can result in exceptional versions from batch to batch. Creating correct and thorough documentation, after which following them through, is essential in reproducing productquality and attaining consistency.

## 9. ICH GUIDELINES FOR STABILITY STUDY:

\* Designing a beauty balance examine A balance examine need to encompass the subsequent considerations (every of as a way to be Discussed in greater element later):

- Identify checks in an effort to “boost up and predict” the outcomes of ordinary situations of Storage and use. Where relevant, bear in mind stresses, together with temperature, in an effort to permit evaluation Of product integrity beneath predicted product publicity situations.
- Consider assessment of crucial aesthetic homes inclusive of shade, fragrance, texture, And flow, specifically after publicity to situations designed to strain every particular Property.
- Consider version in method situations.
- Consider the effect of packaging at the contained product, in addition to any outcomes Which the product may have at the packaging.

\* General considerations:

- 1) General Stability of a Cosmetic Product - Whether carried out in actual time or beneath multiplied situations, checks need to be completed in order to assure:
  - Stability and bodily integrity of beauty merchandise beneath suitable situations of Storage, shipping and use,
  - Chemical balance, Microbiological balance,
  - The compatibility among the contents and the container.
- 2) Accelerated Stability Tests- Accelerated checks, advanced due to the tremendously quick improvement cycle for Cosmetic merchandise, permit the prediction of balance. A normally widespread exercise is To assist the forecasts received from multiplied balance checking out via way of means of wearing out Periodic submit release tracking of retained samples saved at ambient temperatures. The resultant facts also can be beneficial in in addition enhancing the product and in Refining the method used for multiplied balance checking out.

## 10. FORMULATION CONSIDERATION FOR ETHNIC NEEDS OF COSMECEUTICALS:

Ingredients utilized in pores and skin cream encompass:

1. Water: One of the maximum broadly used uncooked substances withinside the manufacture of cream is water. In cosmetics water is used as solvent for lots elements of cosmetics. Water need to be both deionised or distilled, if it must be included in cream formulations. Water is most inexpensive factor in creams, so it is ideal judgment to apply purest water.
2. Oil, Fates and Waxes: Oil, fat and waxes and derivatives therefrom contain an important part of creams. Oil can be of types: mineral and glyceride. . Colours: Colouring retailers is infact, a normal time period for any shade supplying substances. Most of herbal.

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2. Oil, Fates and Waxes: Oil, fat and waxes and derivatives therefrom contain an important part of creams. Oil can be of types: mineral and glyceride.
3. Colours: Colouring retailers is infact, a normal time period for any shade supplying substances. Most of herbal colorations were changed via way of means of coaltar colorations to date as cosmetics are concerned. A few of the herbal colorations may nonetheless to be used. Examples of herbal colorations utilized in cosmetics are saffron, chlorophyll, cochineal.
4. Emollients: Emollients, additionally normally known as moisturizers, are merchandise that assist to melt pores and skin or to deal with pores and skin.
5. Emulsifying Agents: a) Inorganic Solid: Inorganic robust which paperwork emulsion encompass bentonite, colloidal, kaolin, hydrated lime or magnesia and distinct clay. When dispersed with water, their colloidal homes permit the formation of emulsion in water. b) Gums and Proteins: Gums and proteins are used as emulsifying agent. These encompass gum tragacanth, karaya gum, gum Arabic, agar-agar, irish moss, alginate pectins, saponins, gelatin, casine, methyl cellulose and egg albumin.
6. Wetting Agent: Wetting outlets are basically a shape of ground active outlets. These encompass soap, sulfonated oils, fatty alcohols, sulfates, sulfated fatty esters and amides, secondary alcohol sulfates and aryl alkyl sulfates.
7. Humectants: Humectants (or moisturizers) are important splendor factors allowing to prevent loss of moisture thereby keeping the skin`s natural moisture. Some compounds moreover have the cappotential to actively enchantment to moisture. There is a big fashion of very high-quality compounds presenting moisturizing results inclusive of proteins, acids, polysaccharides, and severa small molecules (e.g. glycerine, sorbitol, urea, aloe vera, olive oil, honey, babassu oil, grape seed oil, avocado oil, etc).
8. Perfumes: Perfume is a substance that imparts a heady perfume or odour, inclusive of a sweet and high-quality smell.

### Ideal properties of cream

- Nontoxic
- Posses small
- Non irritating
- Non sticky
- It should be physically and chemically stable

### 12. Hands on experiment:

#### Knowledge of Equipment:

#### Soxhlet apparatus:

#### Principle of Soxhlet extraction:-

Soxhlet extractor extracts the components using the condensed vapours of the solvent. The condensed vapours come in contact with the sample powder and the soluble part in the powder gets mixed with the solvent.

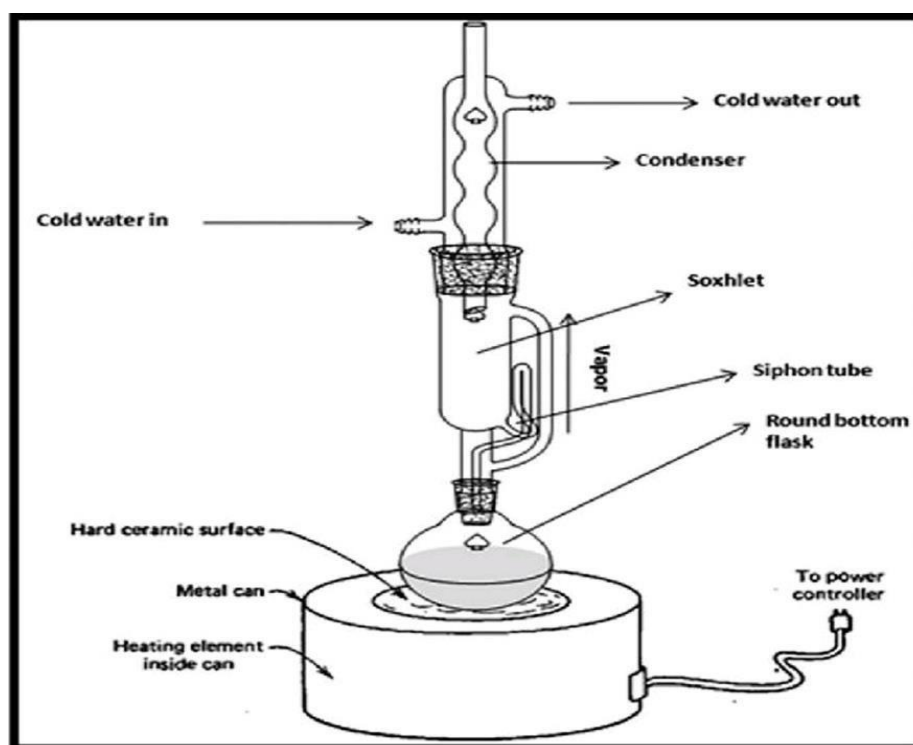


Fig: Soxhelt Apparatus

#### Working-

- The vapours from the RBF excursion from RBF to the condenser through the distillation tube

- The condenser condenses the vapours of solvent and those condensed vapours provide manner to thimble
- We located our sample powder withinside the thimble. The thimble wishes to be blanketed from the bottom with a cotton ball to avoid powder without delay falling into the thimble. And moreover, cover the powder from the top.
- So, even as the condensed vapours fall into the thimble, the powder gets wet with the solvent and the components which can be soluble withinside the solvent gets collectively with it
- Siphon connects the thimble to RBF as we observed earlier. The solvent mixture starts offevolved filling thimble and siphon. A thing reaches wherein the siphon starts offevolved overflowing beneathneath the have an effect on of gravity.
- Since, the siphon without delay connects RBF, the overflowed liquid falls decrease lower back to RBF. This marks the number one cycle.
- As I stated earlier, we're capable of perform as many cycles as we want.
- One thing to mention is we do now no longer extrade the solvent for every cycle. And however that, even as the solvent vaporizes, the components from the sample do now now no longer get vaporized. So, whenever we get 100% herbal solvent vapours.
- When count on we that we have got exhausted the sample sufficiently, we prevent the cycles. Now we are left with the mixture of solvent and the components from the sample which can be soluble withinside the solvent.
- Now, we're capable of separate them with the useful resource of the use of in addition procedure.

#### **Advantages-**

- Efficient and non-stop extraction.
- We can keep the technique till the powder receives absolutely exhausted because of which extraction performance is an awful lot more than the conventional extractor
- We can use changed Soxhlet extractors to satisfy one-of-a-kind desires and growth performance further.
- By editing positive thing, we will use the Soxhlet extractor at the enterprise level.

#### **Disadvantages-**

- Extraction via way of means of Soxhlet is handiest feasible with boiling solvents or azeotropes.

- The favored additives have to be soluble withinside the solvent at a excessive temperature.
- We can't extract from a couple of patterns at a time

### 13. FORMULATION OF ANTI-ACNE CREAM-

#### **Introduction:**

Acne via way of means of definition is multifactorial persistent inflammatory disorder of pilosebaceous units. Propionibacterium acnes and staphylococcus epidermidis are taken into consideration because the foremost pores and skin micro-organism that purpose the formation of pimples. Although pimples does now no longer pose critical risk to fashionable health, it's far one of the maximum socially distressing situations specifically for adolescents. Acne vulgaris is a not unusual place human pores and skin disorder characterised via way of means of regions of pores and skin with seborrhoea (scaly pink pores and skin), comedones (blackheads and whiteheads), papules (pinheads), nodules (massive papules), acne and probable scarring. Demand of natural formulations has been constantly developing withinside the international market. The gift paintings offers with the education and assessment of the anti-pimples cream.

#### **Uses:**

Anti-pimples lotions are designed to assist deal with and save you pimples breakouts. They normally include energetic components that concentrate on the underlying reasons of pimples, which include extra oil production, clogged pores, and bacterial growth. Here are a few not unusual place makes use of of anti-pimples lotions:

1. Treating Acne Breakouts: The number one use of anti-pimples lotions is to lessen and deal with present pimples, consisting of blackheads, whiteheads, acne, and cysts.
2. Preventing Future Breakouts: Many anti-pimples lotions include components like benzoyl peroxide, salicylic acid, or retinoids, that may assist save you new pimples from forming via way of means of maintaining pores clean and decreasing oil production.
3. Reducing Inflammation: Some anti-pimples lotions include anti inflammatory components that could lessen redness, swelling, and inflammation related to pimples lesions.
4. Promoting Skin Renewal: Ingredients like retinoids and alpha hydroxy acids (AHAs) sell the turnover of pores and skin cells, which enables save you clogged pores and might enhance the arrival of pimples scars over time.

5. Targeting Bacteria: Certain anti-pimples lotions include antibacterial dealers like benzoyl peroxide, that may kill the micro organism (P. acnes) that make contributions to pimples development.
6. Minimizing Scarring: Over time, normal use of anti-pimples lotions can lessen the arrival of pimples scars, leave though greater superior remedies can be vital for extreme scarring.

**Formula:**

SR NO	INGREDIENTS	QUANTITY
1	Beetroot extract	2.5gm
2	Pomegranate extract	2.5gm
3	Alovera extract	2.5gm
4	Triethanolamine	4gm
5	Methyl paraben	0.2gm
6	Mineral oil	14ml
7	Beeswax	1gm
8	Distilled water	Q.S

**PROCEDURE:**

- Preparation OF oil Phase : Mineral Oil and Beeswax, Boil for temperature sixty five to 70°C.
- Preparation of aqueous segment : Add Triethanolamine Stearate , Methyl Paraben and Mix it properly in a Beaker
- Development : : Oil segment pour right into a aq. Phase & non-stop stirring then upload Pomegranate Extract, Beetroot Extract, Rose water & stir it switch into container & tight

Sr. No	Ingredient	Quantity For F1	Quantity For F2	Quantity For F3	Quantity For F4
1	Beetroot extract	2.5 gm	2.5gm	2.5gm	2.5gm
2	Pomegranate extract	2.5 gm	2.5gm	2.5gm	2.5gm
3	Tween-80	4ml	6ml	8ml	2ml
4	Methyl paraben	0.2 gm	0.2 gm	0.2 gm	0.2 gm
5	Mineral oil	14ml	9ml	16ml	19ml
6	Beeswax	1gm	2gm	1.5gm	0.5gm
7	Distilled water	QS	QS	QS	QS



**Fig no: formulation of anti-acne cream**

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