

Cosmetic Science: Herbal Crack Heel Cream

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1. Cosmetic Industry:

The cosmetics industry is a multi-billion-dollar global industry that includes the production, marketing, and sale of personal care and beauty products. These products can include items such as makeup, skincare products, hair care products, fragrances, and personal hygiene products. The industry has a long history dating back to ancient civilizations, where people used natural substances such as plant extracts and oils to enhance their appearance and grooming. Today, the industry has evolved to include a wide range of products that are formulated with a variety of ingredients and sold through various channels, such as department stores, specialty beauty stores, and online retailers. The cosmetics industry is constantly evolving, with new products and trends emerging all the time, and it plays a significant role in shaping people's perceptions of beauty and grooming.

2. Overview Of Drug and Cosmetic Act:

The Drug and Cosmetics Act, 1940 is a legislation in India that regulates the import, manufacture, distribution, and sale of drugs and cosmetics in the country. The Act was enacted in 1940 and has undergone several amendments since then, with the most recent being in 1945.

The main objectives of the Drug and Cosmetics Act are to ensure that drugs and cosmetics available in the market are of good quality and safe for use, and to protect the health and welfare of the public. The Act defines drugs as any substance or mixture of substances intended for use in the diagnosis, treatment, mitigation, or prevention of diseases in humans or animals, and cosmetics as any substance or mixture of substances intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance.

The Act establishes the Central Drugs Standard Control Organization (CDSCO) as the national regulatory authority for drugs and cosmetics in India. The CDSCO is responsible for enforcing the provisions of the Act and for issuing

licenses and approvals for the manufacture, import, and sale of drugs and cosmetics. The Act also sets out the requirements for the registration and testing of drugs and cosmetics, as well as the rules for labeling and packaging of these products.

In summary, the Drug and Cosmetics Act, 1940 and 1945 is a comprehensive legislation that aims to ensure the quality and safety of drugs and cosmetics available in the Indian market, and to protect the health and welfare of the public.

3. Current Good Manufacturing Practices:

Current Good Manufacturing Practices of cosmetics as per the regulatory authorities.

Current Good Manufacturing Practices (cGMPs) are guidelines that outline the requirements for the production, testing, and documentation of cosmetics products to ensure their safety, quality, and effectiveness. These guidelines are established by regulatory authorities, such as the U.S. Food and Drug Administration (FDA) in the United States, to ensure that cosmetics products are manufactured, packaged, labeled, and stored in a way that meets the standards for safety and quality.

In the United States, the FDA has established cGMP regulations for cosmetics products in Title 21 of the Code of Federal Regulations, Part 210 and Part 211. These regulations outline the requirements for the production, testing, and documentation of cosmetics products, including the following:

Facilities: Cosmetics manufacturers must have clean, adequately lit, and ventilated facilities to prevent contamination of products.

Equipment: Cosmetics manufacturers must use clean, properly maintained equipment that is appropriate for the intended use of the product.

Personnel: Cosmetics manufacturers must have trained personnel who are qualified to perform the tasks they are assigned.

Production and process controls: Cosmetics manufacturers must have written procedures for the production and process controls of their products, including how raw materials are selected, how products are manufactured, and how finished products are tested.

Documentation: Cosmetics manufacturers must maintain complete and accurate records of their operations, including batch production and control records, as well as records of finished product testing.

4. Condition For Obtaining License:

Conditions for obtaining license for import, manufacture, store and sale of cosmeceuticals from various Administrative Authorities in India and Abroad

In India, the import, manufacture, storage, and sale of cosmeceuticals are regulated by the Drug and Cosmetics Act, 1940 and the Rules made thereunder.

To obtain a license for the import, manufacture, storage, or sale of cosmeceuticals in India, the following conditions must be met:

The applicant must have a valid Drug License or a Manufacturing License, as applicable, issued by the State Licensing Authority (SLA).

The applicant must submit a detailed application to the SLA along with all necessary documents, including:

A copy of the Drug License or Manufacturing License, as applicable

A copy of the Drug Manufacturing and Sale Rules of the state in which the applicant is located

A detailed project report, including information on the manufacturing processes, quality control measures, and raw material sources

A list of the proposed products and their formulations

A list of the proposed manufacturing locations and their capacities

A list of the proposed sales locations and their capacities

The SLA will review the application and may conduct an inspection of the applicant's facilities to ensure that they meet the required standards.

If the application is approved, the SLA will issue a license that is valid for a period of three years. The license may be renewed upon expiration.

1.1 Skin:

The skin and its appendages (nails, hair, and certain glands) are the largest organ in the human body, with a surface area of 2 m². Skin thickness ranges from 0.1 mm at the thinnest point (eyelids) to 1.5mm at the thickest point (palms of hands and soles of feet) and accounts for 15% of total adult body weight. This article goes over its structure and functions.

The human skin, which is the body's outer layer, is the most important organ of the integumentary system. With up to seven layers of ectodermal tissue, the skin protects the underlying muscles, bones, ligaments, and internal organs. Human skin is comparable to that of most other animals, and it is especially similar to that of pigs. Despite the fact that nearly all human skin has hair follicles, it can appear hairless. Hairy and glabrous skin are the two main forms of skin.¹

Because it interacts with the environment, skin performs an important immunological role in guarding the body against infections and excessive water loss. Its other functions include insulation, temperature regulation, sensibility, vitamin D synthesis, and vitamin B folate protection. Scar tissue forms when skin is badly damaged and attempts to mend. It's discoloured and depigmented a lot.¹

The skin has three main functions:

- Protection
- Thermoregulation
- Sensation

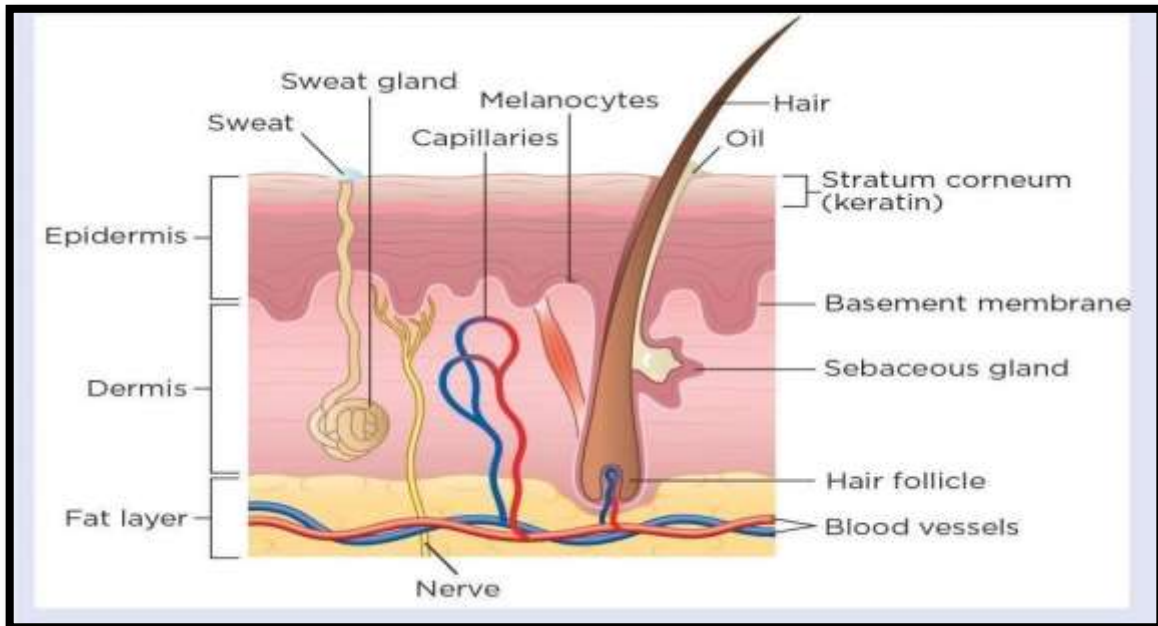


Figure 1 Cross section through skin

1.2Cracked heels:

Because there are no oil glands on the foot, the skin tends to grow drier. The skin cracks as a result of the dryness. Dry and cracked feet are caused by a lack of moisturization, excessive pollution exposure and a few medical disorders such as eczema, diabetes, thyroid, and psoriasis.

A cracked heel is a common foot problem. It occurs when dry, thick skin on the bottom of your heels cracks and splits.²

In most cases, if the cracks are minor, it's merely a nuisance and may be unattractive to look at, but if left untreated and the heel fissures become deeper, it can be painful to walk and may become infected.

1.2.1Causes & Risk Factors:

Heel fissures are most commonly caused by extremely dry skin. For the majority of people, cracked heels are merely aesthetic and do not create any additional issues. People with deep cracks, on the other hand, may suffer from pain or even bleeding.

When you stand, pressure is applied to the back of your heels, causing the dry skin on your heels to calluses. Calluses form on the back of your heel and might be yellow or dark brown in colour. When weight and pressure are applied to your heels while the skin is already dry, little fissures can

form. Small cracks on the heel are common, but they can grow larger and deeper with time.

When your heel cracks are this deep, they might cause pain and bleeding. When you sit and take your weight off your feet, the pain normally goes away.

Heel fissures can affect anyone, but some people are more susceptible than others.

The following are some of the risk factors and conditions:

- Obesity
- Diabetes
- Eczema and Psoriasis
- Long periods of standing or walking on hard surfaces
- Thyroid issues
- Vitamin and mineral deficiencies
- Genes
- Estrogen deficiency
- Peripheral neuropathy is a condition that affects the peripheral nerves.
- Unusual circulation

1.2.2Preventing cracked heels:

There are a few things you can do to keep your heels from cracking.



Because heel fissures are caused by dry skin, the first thing you can do to prevent them is to take care of your feet's skin. To keep your feet hydrated, use a foot cream or lotion every day. When the skin is soft, it's preferable to do this after a shower or bath.

Use a pumice stone to file the skin on your heels at least once a week. This aids in the removal of dry, flaky skin from your heels. Filing your heels also aids in the removal of heavy layers of calluses and dry skin, allowing the moisturiser to absorb and hydrate your skin more effectively.³