



A Review on Preparation of Calendula Oil

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Abstract

Calendula officinalis (calendula), belonging to the family Asteraceae, commonly known as English Marigold or Pot marigold. It is widely cultivated & can be grown in sunny locations. It is an annual or biennial plant attending a height of 30-60cm. It is a herb which is used in Traditional system of medicine for treating Wounds, Ulcers, scars, hair damage, Eczema, Diaper Rash, and Other Skin Conditions, it is mainly used because of its various biological activities to treat diseases as analgesic, antidiabetic, antiulcers & antiinflammatory it is also used for gastrointestinal diseases, gynecological problems, eye diseases, skin injuries & some cases of burns. An infusion or tincture of the flower taken internally is beneficial in the treatment of infections & diarrhea. An infusion of *calendula officinalis* may also be used to treat eye inflammation, boils & abscesses, eczema. This plant is rich in many pharmaceutical active ingredients like carotenoids, flavonoids, glycosides, steroids & sterols, quinines, volatile oil & amino acids. Calendula oil is a powerful medicinal oil extracted from the petals of a common species of marigold. By using oil infusion, maceration method calendula oil is extracted, prepared & evaluated. In this review a detailed account of methods of preparation of calendula oil and their medicinal properties have been addressed.

Keywords: *Calendula officinalis*; Classification; Phytochemicals; Extraction method; Evaluation; Medicinal properties; Anti-inflammatory; Anti-aging; Eczema.

1. Introduction

Calendula Officinalis Linn is also called as pot marigold & it has been extensively used in homeopathic drug for the treatment of numerous conditions. It's one of the generally used medicinal factory in India, China, Europe & US. *Calendula* was known as "gold's" in old English was associated with Virgin Mary & Queen Mary, Hence the name is "Mary's gold" or Marigold. The name of this factory comes from a Latin word 'Calends' meaning the first day of each month, because of the long flowering period of factory. It belongs to the family Asteraceae or Compositae & is generally known as zergul (hindi), African marigold, Pot Marigold(English), *Calendula*, Butterblume(German), Ringblomma(Swedish), Marygold, Chin Chan Ts' ao(Chinese). Common marigold [1].

2. Morphology and Microscopy

Calendula Officinalis Linn. Is an annual or biennial plant attaining height of 30-60 cm. Leaves lower spatulate 10- 20cm. long & 1-4cm wide, Stem angular, hairy & solid; Flower heads bright yellow to orange; Marginal flowers in cultivated plants multiseriate, Corolla oblong spatulate, 15-25 cm long & 3mm wide .

3. Traditional Application

C. Officinalis Linn.(pot marigold) has been traditionally used in the treatment of inflammation of internal organs, gastrointestinal ulcers & dysmenorrhea & as a diuretic & diaphoretic in storms. It's also used for inflammation of the oral & pharyngeal mucosa, injuries & becks . *Calendula* is a sanctification & detoxifying condiment & the infusion treat habitual infections. The dried flower kids have been used for their antipyretic, anti-tumor cicatrizing goods. Topical operation of infusion of flowers is used as antifungal & antiseptic in injuries. *Calendula* tea is extensively used as eyewashes, gargles & other seditious condition of the skin & mucous membranes. Mother tinge of *C. Officinalis* is used in homeopathy for the treatment of internal pressure & wakefulness. It's used as analgesic, anthelmintic, antibacterial, anti-emetic, anti- fungal, anti-septic ,anti-pyretic, anti-viral, tangy, cardiotoxic, carminative, diuretic, hemostatic, uterotonic & as a Vasodilator. This herb used medicinally either in the form of infusions, tincture, liquid extracts, creams or ointment. *C. Officinalis* preparation are used in various complementary and alternative medicine systems mainly for burns, cuts, rashes, demartitis, dry skin & foot ulcers. *C officinalis* preparations currently use include carophyllenic ointment & pot marigold tincture [2].

3.1. Chemical Constituent

Phyto chemicals, including carbohydrates , phenolic compounds, lipids, steroids, tocopherols, terpenoids, quinones, & carotenoids. The major active constituents of plant include triterpenoid esters, saponins & flavonoids including rutin & hyperoside.

3.2. Taxonomic Bracket of *Calendula Officinalis*

- Kingdom: Plantae
- Subkingdom: Tracheobionta
- Division : Magnoliophyta
- Class : Magnoliopsida
- Subclass: Asteridae
- Order : Asterales
- Family: Asteraceae
- Genus: *Calendula*
- Species : *C. Officinalis* [3]

4. Cultivation and collection

Calendula officinalis is extensively cultivated and can be grown fluently in sunny locales in utmost kinds of soils. Although imperishable, it's generally treated as an periodic, particularly in colder regions where its downtime survival is poor, and in hot summer locales where it also doesn't survive [4]. *Calendulas* are considered by numerous gardening experts as among the easiest and most protean flowers to grow in a garden, especially because they tolerate most soils. In temperate climates, seeds are sown in spring for blooms that last throughout the summer and well into the fall [5]. In areas of limited downtime freezing, seeds are sown in afterlife for downtime color. shops will wither in tropical summer. Seeds will germinate freely in sunny or partial-sunny locales, but shops do stylish if planted in sunny locales with rich, well- drained soil. Pot marigolds generally bloom snappily from seed(in under two months) in bright yellows, golds, and oranges [4].

5. Calendula Oil

Calendula oil painting is a important medicinal oil painting uprooted from the petals of a common species of marigold. Taxonomically known as *Calendula officinalis*, this type of marigold has bold, bright orange flowers, and you can decide benefits from brume distillations, oil painting lines, tinctures or water- grounded birth, but the most potent forms of this oil painting are made through oil painting lines. numerous canvases are reused along with olive oil painting, and indeed have vitamin E added to the oil painting to increase its energy for skin health. That being said, pure forms of *calendula* oil painting are readily available, but it's fairly easy to make at home. The numerous benefits of *calendula* oil painting are due to the significant situations of triterpenoids, flavonoids, carotenoids, saponins, polysaccharides, and other active antioxidants [6].

6. Method of Preparation

Making *calendula* oil at home is a great way to save plutocrat and insure the quality of your oil painting, handed you have access to dried *calendula* flower petals, avocado oil painting(or olive oil painting), and a glass jar [6]. There are a many different ways to prepare this healthy oil painting, but the traditional system can take up to a month. By applying heat, as we do in the form below, the process of oil painting birth can be significantly sped up, meaning that you can start serving from *calendula* oil painting indeed briskly! *Calendula* oil painting can be used as

a first aid for minor cuts and scrapes. It's excellent anti-inflammatory product and will help to reduce greenishness and inflammation on sensitive skin and eczema. You can also use calendula oil painting for lip and neck care. You can also use calendula oil painting as a salad dressing; still, I tête-à-tête kind of begrudge it [7]. It just sounds weird for me. You can also mix calendula oil painting with your favorite skincare products like poultices and creams to enhance benefits.

7. Ingredients

Calendula dried petals, Oil of your choice (olive oil, almond, grape seed; jojoba is not edible but perfect for skin)

7.1. Method 1 (Long, No Heat Used)

Place calendula petals in a dry glass jar. Pour in oil of your choice to cover petals by an inch (about 2 cm). Cover the jar with a lid and give your oil a good shake. Place your jar in a paper bag or wrap a kitchen towel around the jar; place jar in a warm place. Infuse oil for 4-6 weeks giving your jar a good shake once a day. In 4-6 weeks strain calendula oil in another glass jar. Store in cool, dark place.

7.2. Method 2 (Quick, Using a Double Boiler)

Place calendula petals in a dry glass jar. Pour in oil of your choice to cover petals by an inch (about 2 cm). Cover the jar with a lid and give your oil a good shake. Create a double boiler, bring water in a larger pot to boil then reduce heat right away (follow this link to learn how to make double boiler). Simmer water on a low to medium heat; stir your oil from time to time. Allow oil to infuse for 1-2 hours (the longer the time, the more concentrated oil is). Let oil cool, strain it to a glass container. Store in cool, dark place.

7.3. Method 3 (Quick, Using Crock Pot)

Place calendula petals in a dry glass jar. Pour in oil of your choice to cover petals by an inch (about 2 cm). Cover the jar with a lid and give your oil a good shake. Place a towel on a bottom of your Crockpot. Place the jar on the towel, add warm water to a crock pot to cover half of the jar. Set crock pot to a lowest setting for 2-6 hours; you can even set it to warm setting (the longer you let your oil infuse, the more concentrated it will turn out). Let oil cool and strain it to a clean glass jar. Store in cool, dark place.

7.4. How Calendula Oil Is Uprooted?

Manufacturers make the calendula oil painting by taking dried calendula petals or flowers and investing them in one of a number of canvases, similar as jojoba or olive. There are many different specific approaches then; generally, the longer you leave the flowers to sit in the oil painting, the more effective the birth process will be. Still, if you're making your own oil painting and you're not willing to stay several weeks for it, you might prefer a hastily option [8].

8. Extraction Method

8.1. Oil Infusion

It can be prepared with or without heat. The heatless process, or maceration, is slower but doesn't damage the delicate ingredients in the shops or carrier canvases. You can use heat to speed up the infusion process, reducing the birth time from weeks to only a many hours. Still, heated styles bear further awareness to insure the oil painting doesn't get ruined. Resinous sauces like Calendula are stylishly uprooted using heat and longer processing time [9].

8.2. Maceration Method

Place the sealed jar in a sunny window. Cover with a paper bag in order to cover from dangerous UV light. Shake daily for four to six weeks.

8.3. Water Bath Method

Place the set jar into a heating vessel with water. The water position should be about half up the side of the jar, and a rack should be set between the vessel and jar. We prefer to use a pot on the stovetop, hotted to a poach, also turned off to let the condiment-oil painting admixture inoculate. We repeat this process several times over a 24-hour period. The infusion is done when the oil painting takes up color from the herbs. Alternatively, you can set up a water bath in a Crock-Pot and process on the smallest setting for four to six hours, or in a yogurt maker/ electric pressure cooker with "yogurt" setting for 8-10 hours. Note using a yogurt maker/ yogurt setting produces an ultra-low heat (110-115°F) water bath only applicable for light sweet shops, and not resinous bones like Calendula which bear further heat [9].

8.4. Evaluation Styles

In this work yield (v/w) of calendula essential oil painting (*Calendula officinalis* L.) attained by two styles, hydrodistillation (HD) and ohmic-supported hydrodistillation (OAHD) was determined; fresh flowers (Ff) and dried flowers (Fs) were used. The effect of the birth styles and the state of the flower on the total birth time (min), oil painting accumulation time (min) and birth yield (quantum of oil painting uprooted, mL per 100 grams of factory

material) was estimated. The results showed significant differences ($p < 0.05$) when comparing the total time of birth (min) and the yield (v/w) as a function of the system of birth and the state of the flower. The stylish results were attained by OAH system, registering yields of 1.249 for Ff and 1.289 for Fs, an suggestion that this is a superior birth system when compared to hydrodistillation. assaying yield (v/w) versus birth time (min) indicates that the maximum quantum of oil painting was registered for fresh samples both when using HD and OAH, but when using dried flowers (Fs), longer times were registered both for HD and OAH, thus, the state of the factory material told the quantum of oil painting attained and the birth kinetics.

9. Properties of Calendula Oil

9.1. Anti-Inflammatory

Regularly applying this oil painting to your joints and muscles can help those who witness habitual discomfort. It's also used to lessen swelling after injuries and sprains. You can also consume small quantities of calendula oil painting to help with digestive issues. Some people choose to use it in salad dressings, so while large quantities aren't recommended, a small quantum of internal consumption is safe. Calendula can be used for slow-mending wounds. However, calendula will increase the rate at which it'll regenerate and heal [10], If you have a cut or a scrape that's starting to scar or heal over. It also helps to reduce greenishness of old blisters. Contrary to popular belief, inflammation isn't entirely a bad thing. In a way, it's the body's way of defending itself from dangerous raiders. Inflammation occurs when a foreign adulterant tries to enter the body, and the body in turn attempts to get relieve of it Greenishness, pain and lump are frequently the results of inflammation. The reason people are cautious about inflammation is because it's frequently accompanied by pain, and can beget great discomfort. When it becomes habitual or patient, you would want to tone it down with natural anti-inflammatory agents similar as calendula oil. As colorful studies will tell you, calendula oil painting has strong anti-inflammatory mechanisms that you could take advantage of in certain circumstances. This property can be attributed to the presence of triterpenoids. Since utmost of these studies have been done on beast subjects, it's necessary to do mortal trials to further establish the anti-inflammatory parcels of calendula oil. Inflammation is the body's first line of defense against dangerous raiders similar as bacteria and viruses. To ward off pain and inflammation that has come habitual and patient, you can make use of calendula oil. Calendula oil painting is a important anti-inflammatory that you can use as remedy for habitual and patient inflammation. Calendula is popularly known for its anti-inflammatory parcels. It helps in soothing the skin and heals any issues at a faster rate. Calendula is extensively used in drugs that are used for healing the skin or treating the vexation or becks. Also, it effectively treats the greenishness of the skin without any side goods [11].

10. Eczema, Diaper Rash, and Other Skin Conditions

Calendula is heavily retailed in the treatment of eczema and dermatitis; still, the exploration on calendula for treating eczema and dermatitis is limited. Because the factory has anti-inflammatory parcels, applying it to skin conditions may reduce inflammation still, there's no real clinical substantiation to support its use for eczema. In fact, the use of calendula may actually be prickly for youthful children with severe eczema, especially if they've an mislike to ragweed, daisies, marigold, or any other factory variety within that family. Calendula's use for children may be contraindicated, so always ask your croaker before beginning. Using calendula creams on diaper rash may be profitable when compared to certain treatments, similar as aloe vera gel. still, exploration indicates that calendula is inferior to bentonite result. Experimenters set up that when treating babies with Bentonite, 88 percent of lesions in the Bentonite group started perfecting in the first six hours while this rate was 54 percent in the calendula group [12].

11. Wound Healing

Crack mending Calendula is primarily known as a mending factory because of its soothing capacities. Although a gentle condiment, the mending goods deduced from Calendula petals are veritably important, making it a must-have in the drug press. It's salutary for any crack mending you may need including nonentity mouthfuls, bruises, pocks, cuts, and cold blisters. Topical operation of Calendula is used to keep injuries clean and help new towel to grow. It's frequently used to help inadequately healing injuries, those that are flaunting signs of tender heartedness, greenishness, or inflammation, to correct course. The mending condiment is also effective in treating minor becks, including sunburn. It assists in sun protection and may accordingly be included in sunscreen formulas for precautionary care. Calendula cream, ointment, or healing attar may be applied to injuries to reduce swelling and their antimicrobial factors, specifically their antifungal agents, can help secondary infection, leading to a quicker mending process. Calendula has demonstrated efficacy in the treatment of injuries, promoting towel rejuvenescence and reepithelialisation [13].

12. Moisturises Your Skin

Not icing that your skin is doused can give you multiple skin issues, ranging from itchiness to the early appearance of fine lines. Hence, to moisturise your skin, look no further than calendula oil painting. Calendula oil painting is light in texture, which means it gets fluently absorbed into the skin and can travel to the deepest subcaste to moisturize [14].

13. Anti-Aging Benefits

Are you or someone you know passing accelerated skin aging related to stress or illness? You may need to add Calendula oil painting to your skincare routine. As set up in Revive & Repair anti-aging creme, Calendula oil

painting helps decelerate down the appearance of fine lines and wrinkles, and other signs of skin aging. Adding this oil painting to your skin authority also boosts skin hydration and helps to promote clear, immature, glowing skin. frequently dry skin leads to one of the major fears – unseasonable ageing. Calendula possesses regenerative parcels and heals the dry or damaged skin, which in turn helps in precluding the chances of unseasonable ageing. Using calendula oil painting makes your skin softer and corpulent while reducing the appearances of fine lines and wrinkles. As stated over, calendula boosts the collagen product that helps in precluding the unseasonable ageing of the skin. It provides your skin with a immature gleam [15].

14. Heals Damaged Skin

Not everyone enjoys clear and glowing skin, as stated before, and one of the reasons isn't using the stylish skincare products for your skin type. Or applying too numerous constituents to the skin. Have you seen the 10- step or 15- step skincare routine making the rounds on social media? Too important of anything can be bad for your skin. Incorporating Calendula oil painting makes sense because it performs several functions that replace numerous other constituents, reducing the need for multiple factors on the skin. It also possesses parcels that help your skin heal briskly from vexation or injuries. Calendula is relatively hydrating in nature and treats dry and damaged skin. It incontinently makes the skin rotund and soft while conducting a subtle radiance. However, calendula can help in healing it briskly and provides humidity to that area while soothing it, If you have oppressively dry skin. Also, calendula is relatively salutary in treating dry and chapped lips as well. Dispensable to say, when calendula is used for skin, it brightens up the skin and keeps it doused [11].

15. Functions as Sunscreen

Every dermatologist agrees on one thing sun protection! Sunscreen functions as an redundant sub caste of protection for the body by reflecting down or absorbing dangerous ultra-violet shafts of the sun. Calendula oil painting has some sun- guarding parcels. In a study, Calendula oil painting was set up to have an fellow of SPF 14. You should surely shoot for SPF 30 in your sunscreen and reapply every 2 hours if you're out in the sun [6].

16. Increases Skin Firmness

Calendula oil provides some short-term benefits for your skin, and one of them is keeping the skin firm.

17. Treats Acne

Calendula possesses anti-bacterial attributes that help in treating the acne. Because of the sanctification parcels, it helps in sanctifying the pores and keeps them unstopped as clogged pores are the main reason for acne flights. either, it eliminates the acne causing bacteria, therefore precluding your skin from unborn acne breakouts. a oil painting also makes your skin more doused and supple [11].

18. For Healthy Hair

18.1. Crown Treatment

Conversations about the skin shouldn't count the skin beneath our hair, the crown. Calendula oil painting is an excellent crown moisturizer. It also has antibacterial and antifungal parcels, making it suitable to treat dandruff and seborrheic dermatitis. It also helps hydrate the crown and helps reduce itching. But it does one further thing it can promote hair growth by reducing inflammation of the crown. Despite crown treatment falling under hair care, calendula oil painting benefits extend to the crown. Calendula condiment is hydrating and moisturising in nature. Using calendula oil painting or calendula invested hair care products moisturises your crown and eliminates the dandruff issues [11].

19. Treat Dandruff

Calendula moisturises and hydrates your scalp and keeps itchiness and dryness at bay. Besides, calendula heals the scalp from all the wear and tear done to it while washing, brushing, detangling or styling.

20. Promotes Hair Growth

Calendula possesses mending parcels, and it can heal your damaged crown which can be one of the reasons for hair fall. When you use calendula oil painting or calendula invested hair care products, it effectively heals and conditions the crown and makes your hair grow stronger. Also, using calendula for hair strengthens the hair follicles, which in turn help in promoting the growth of healthy hair at a faster pace [11].

21. Natural Color for Hair

Irrigating your hair with calendula tea can give your hair a golden tone or red tone, depending on your original hair colour. It provides a subtle and vibrant colour to your hair without any side goods. Unlike the chemicals used in hair colouring treatments, calendula tea treats the blankness and frizziness of the hair and makes them soft and nourished. So, to add a naturally golden or red shade to your hair [11].

22. Anti-Microbial

As you may know, your body is covered with trillions of microbes — including bacteria and fungi — inclusively called the microbiome. When balanced, these all play an important part in keeping skin healthy. It's when a certain strain(or strains) come grown that issues arise" Its antimicrobial benefits make it useful in addressing issues like dandruff, diaper rash, and indeed acne," says Zeichner. See, dandruff, rashes, and acne are all touched off by the overgrowth of certain fungi and bacteria, which calendula can help manage [16].

23. Anti-Oxidant

Antioxidants are a cherished skin care component for good reason, as they neutralize free revolutionaries and help our bodies avoid oxidative stress — both of which lead to unseasonable aging, collagen and elastin breakdown, and a whole host of other issues. Calendula contains carotenoids and flavonoids. And because of these antioxidants, the factory has been shown to help injuries heal briskly, rotund skin through hydration and rotation, and (again) help inflammation. Calendula oil painting contains a high quantum of antioxidants that can help exclude oxidative stress in the skin. When there's an accumulation of reactive oxygen species in the body, oxidative stress can damage the cells and beget inflammation. Antioxidants in Calendula oil painting quench the free revolutionaries by replying with the reactive oxygen species rather of the cells, guarding the cells from damage and inflammation. By applying Calendula oil painting to the skin or using skincare products containing Calendula oil painting, your skin will be more healthy and less prone to vexation. Calendula is relatively potent in antioxidants that help in maintaining the health of your skin. These antioxidants play a major part in neutralising the free revolutionaries that can damage your skin. Antioxidants promote the growth of healthy skin cells by adding the cell development. Calendula boosts the collagen product in the body while making your skin radiant and healthy. therefore, using calendula for your skin improves its texture to a great extent [11].

24. Analgesic

Calendula oil painting can help reduce pain and discomfort. This analgesic property is independent of the opioid pathway, so this avenue is being explored more in the health community to minimize the tradition of anesthetics. Do not be surprised if your analgesic cream contains Calendula oil painting. Applying the oil painting to the skin is also veritably soothing [6].

25. Conclusion

As the plant *C. officinalis* - possesses wide variety of phyto-chemicals and pharmacological activities, so it can be considered as an excellent source of new drugs. Many reports are available on the Calendula having highly effective anti-bacterial, anti-fungal, anti-helminthic, anti-molluscal and anti-inflammatory properties with no toxicity. It is a promising plant which needs to be investigated thoroughly and can be exploited for extraction of active ingredients that can be used in the synthesis of different drugs, for theprotection against various maladies and management of various diseases.

References

- [1] Khalid, K. A. "Biology of calendula officinalis linn.: Focus on pharmacology " *Biological Activities and Agronomic Practices*, p. 16.
- [2] Calendula Healing Properties. "Sow small garden [internet]. [cited 2022 jun 13]." Available: <https://sowsmallgarden.com/calendula-healing-properties/>
- [3] Singh, M. K., Sahu, P., Nagori, K., Dewangan, D., Alexander, T., . K. A., and Tripathi, D. K., 2011. "Organoleptic properties in-vitro and in-vivo pharmacological activities of Calendula officinalis Linn." *An Over Review*, p. 9.
- [4] Calendula officinalis, 2018. "My garden. [cited 2022 jun 13]." Available: <http://www.nydecay.org/calendula-officinalis/>
- [5] 25 Calendula Seeds Great Potted Annual Perennial Bedding | ETSY | Calendula. "Garden flowers perennials, flowers perennials [internet]. Pinterest. [cited 2022 jun 13]." Available: <https://www.pinterest.com/pin/25-calendula-seeds-great-potted-annual-perennial-bedding-plant-orange-blooms-in-2022--737042295280093888/>
- [6] 8 surprising benefits of calendula oil on your skin | adm skincare |, 2022. "Beauty of color blogs by dermatologist dr dele-michael, md [internet]. [cited 2022 jun 13]." Available: <https://www.admskin.com/blogs/news/8-surprising-benefits-of-calendula-oil-on-your-skin-admskin>
- [7] Amazing Healing Benefits oF Calendula for Skin and Hair. "Modern vintage ville [internet]. [cited 2022 jun 13]." Available: <https://www.modernvintageville.com/calendula-for-skin/>
- [8] Calendula Oil - All Uses. "Benefits and side effects [internet]. Ilavahemp. [cited 2022 jun 13]." Available: <https://ilavahemp.com/calendula-oil/>
- [9] Musa, S. "Liquid gold: How to make calendula oil [internet]. Learningherbs. 2019 [cited 2022 jun 13]." Available: <https://learningherbs.com/remedies-recipes/calendula-oil/>
- [10] Calendula Oil. "Uses and benefits - kami mcbride [internet]. [cited 2022 jun 13]." Available: <https://kamimcbride.com/calendula-oil-uses-benefits/>
- [11] 8 Beauty Benefits of Calendula for Skin and Hair, 2022. "[internet]. [cited 2022 jun 13]." Available: <https://makeupandbeauty.com/8-beauty-benefits-of-calendula-for-skin-and-hair>

- [12] Can Calendula Help to Heal Wounds? [Internet]. "Verywell health. [cited 2022 jun 13]." Available: <https://www.verywellhealth.com/health-benefits-of-calendula-4582641>
- [13] [Internet], C. B. a. H. t. U. T. A.-P. P. "All good products. 2019 [cited 2022 jun 13]." Available: <https://allgoodproducts.com/calendula-benefits-how-to-use-this-all-purpose-plant/>
- [14] [Internet], H. s. W. Y. M. A. C. O. t. Y. S. R. "Healthshots. 2021 [cited 2022 jun 13]." Available: <https://www.healthshots.com/beauty/skin-care/benefits-of-using-calendula-oil-for-skin/>
- [15] RMS Beauty Tinted, 2022. "Un Powder | Verishop [Internet]. [cited 2022 Jun 13]." Available: https://www.verishop.com/rms-beauty/face-powder/tinted-unpowder/p1640388296739?variant_id=14324815986723
- [16] This Anti-Inflammatory, 2022. "Skin-soothing oil is a superstar beauty botanical [internet]. Mindbodygreen. 2020 [cited 2022 jun 13]." Available: <https://www.mindbodygreen.com/articles/calendula-benefits>