

# Bitter Orange Essential Oil Health and Beauty Benefits

Bitter orange, or Seville orange (as opposed to Valencia orange, a sweet orange named after the famed oranges in València, Spain), bigarade orange, or marmalade orange is a species of Citrus, *Citrus × aurantium* and its fruit, from the family Rutaceae. It is also known as kijiitsu, khatta and Chen–Pi.

The bitter orange tree is a small evergreen that typically reaches a height of 3 meters (10 ft.) in cultivation, but may reach a height of 6 meters (20 ft.) in the wild. Bitter orange trees can reach a ripe old age, some trees in Spain are reportedly over 600 years old.

*Citrus × aurantium* can be identified through its fruit, which is oval or oblong in shape, measures 7–8 cm across, is red–orange when ripe and has a distinctively thick, dimpled skin. The fruit is comprised of 10–12 segments, holds less juice and numerous seeds, and has a distinctly bitter or sour taste. The tree has alternate, simple, heart–shaped leaves and thorns on its petiole.

The bitter orange tree [thrives in subtropical regions](#) but can withstand adverse environmental conditions like frost for short periods. There are 23 cultivars of the fruit, the most prominent of which is bergamot (*Citrus bergamia*). Some varieties are bitterer than others.

Bitter orange contains several potent plant compounds that are sometimes extracted from the dried peel to make dietary supplements. The patented extract of bitter orange, *p–synephrine*, is sold in capsule form as the [herbal weight loss supplements](#) Advantra Z and Kinetiq. Essential oils, and powdered and liquid supplement forms are available as well.

## DIFFERENCES BETWEEN BITTER ORANGE, NEROLI AND PETITGRAIN ESSENTIAL OILS

Bitter orange essential oil is orange–yellow or orange–brown in color and is obtained from the peel of the bitter orange fruit, *Citrus × aurantium* via cold press. Neroli essential oil is obtained from the flowers of the tree and petitgrain essential oil is obtained from the leaves and twigs of the tree.

The scent of bitter orange is fresh, fruity citrus, virtually identical to that of sweet orange, but much more intense, neroli smells much more floral and petitgrain features a warm, somewhat spicy fragrance.

## THE ETYMOLOGY OF BITTER ORANGE

The words “orange” and “auran(tium)” are derived from the Sanskrit “nagaranga” that comes from the Arabic “naranj”.

## THE HISTORY OF THE BITTER ORANGE

Thought to have [originated in Southeast Asia](#), bitter orange is now grown for commercial purposes throughout the Mediterranean region and the Americas, including California and Florida, the South Sea Islands, Europe, and Western and Southern Africa. It is probably a cross between the pomelo, *Citrus maxima*, and the mandarin orange, *Citrus reticulata*.

Bitter orange trees could be found growing wild near small streams in generally secluded and wooded parts of Florida and the Bahamas, after it was introduced to the area from Spain, where it had been introduced and cultivated heavily beginning in the 10<sup>th</sup> century by the Moors.

The term “Moor” is an exonym first used by Christian Europeans to designate the Muslim inhabitants of the Maghreb, the Iberian Peninsula, Sicily and Malta during the Middle Ages. The term Moors initially referred to the indigenous Maghrebine Berbers, but the name was later also applied to Arabs and Arabized Iberians.

*Citrus × aurantium* was the first orange to be introduced to the Americas by the Spanish and Portuguese in the 16<sup>th</sup> century, finding its way to Mexico in 1568 and South America later in 1587.

## VARIETIES OF BITTER ORANGE

- *Citrus × aurantium* subsp. *amara* is a spiny evergreen tree native to southern Vietnam, and widely cultivated. It is used as grafting stock (a horticultural technique whereby tissues of plants are joined so as to continue their growth together) for citrus trees, in marmalade, and in liqueur (an alcoholic drink composed of spirits and additional flavorings) such as triple sec (an orange-flavored liqueur), Grand Marnier (a French brand of liqueurs), and Curaçao (a liqueur flavored with the dried peel of the bitter orange “laraha”, a citrus fruit grown on the Dutch island). It is also cultivated for the essential oil expressed from the fruit. From the blossoms, by process of distillation (the process of separating the components from a liquid mixture by using selective boiling and condensation) can be obtained two by-products: neroli oil (an essential oil with a sweet, honeyed and somewhat metallic scent, with green and spicy facets) and orange flower water (or orange blossom water).
- *Citrus × aurantium* var. *myrtifolia* is sometimes considered a separate species, *Citrus myrtifolia*, the myrtle-leaved orange, is a species of Citrus with foliage similar to that of the common myrtle. It is a compact tree with small leaves and no thorns which grows to a height of three meters (10 ft.) and can be found in Malta, Libya, the south of France and Italy. The “Chinotto” cultivar is used to make the Italian bittersweet carbonated beverage also called *Chinotto*.
- *Citrus × aurantium* var. *daidai*, *daidai*, is used in Chinese medicine and Japanese New Year celebrations. Since 1873, the official Japanese New Year has been celebrated according to the Gregorian calendar, on January 1 of each year. The aromatic flowers are added to tea.
- *Citrus × aurantium* subsp. *currassuviencis*, *laraha* (is cognate with Portuguese *laranja*, meaning “orange”), grows on the Caribbean island of Curaçao. The dried peels are used in the creation of Curaçao liqueur.

## BITTER ORANGE RELATED SPECIES

- *Citrus bergamia*, the [bergamot orange](#), is probably a bitter orange and limetta (considered to be a cultivar of *Citrus limon*, *C. limon* “Limetta”, is a citrus species commonly known as mousami, musami, sweet lime, sweet lemon and sweet limetta) hybrid; it is cultivated in Italy for the production of bergamot essential oil, a component of many brands of perfume and tea, especially Earl Grey tea (black tea blend).

## THE MANY USES OF THE BITTER ORANGE

Many varieties of bitter orange are grown for commercial purposes for their essential oil, which is used in perfumery and in cosmetics (facials, shampoos, cleansers, conditioners and moisturizers), used as a flavoring in foods or as a solvent (a substance that dissolves), and also for consumption.

The fruit and leaves make lather and can be used as soap. Additionally, it is used in making household cleaning products, disinfectants and pharmaceuticals.

The *Citrus × aurantium* tree is used as a rootstock (part of a plant, often underground, from which new above-ground growth can be produced) in orange groves.

The hard, white or light-yellow wood is used in woodworking and made into baseball bats in Cuba.

## CULINARY USES OF BITTER ORANGE

While the raw pulp is not edible, bitter orange is widely used in cooking. The Seville orange (*Citrus × aurantium*) is prized for making British orange marmalade (fruit preserve), being [naturally high in pectin](#) (a structural acidic heteropolysaccharide) than the sweet orange (*Citrus × sinensis*), and therefore producing a better set and a higher yield.

Once a year, oranges of this variety are collected from trees in Seville and shipped to Britain to be used in making marmalade. However, the fruit is rarely consumed locally in Andalusia, where it is cultivated. This tradition reflects the historic Atlantic trading relationship between England, Portugal and Spain; the earliest recipe for “marmelat of oranges” dates back to 1677.

Bitter orange—bigarade—was used in all early recipes for the *cuisine bourgeoise* dish called *duck à l'orange* (or orange duck, a French dish consisting of a roast duck with a “bigarade” sauce), which was originally called *canard à la bigarade*.

It is also used in compotes (or “compôtes” desserts originating from medieval Europe, made of whole or pieces of fruit in sugar syrup) and for orange-flavored liqueurs. The peel can be used in the production of bitters (an alcoholic preparation of botanical matter).

The unripe fruit, called *narthangai*, is commonly used in Southern Indian cuisine (also known as Dakshina Bharata or Peninsular India), especially in Tamil cuisine (cuisine originating in the Indian state Tamil Nadu and other parts of South Asia, like Sri Lanka). It is pickled by cutting it into spirals or small wedges and stuffing it with salt. The pickle is usually consumed with a yoghurt rice dish called *thayir sadam* (curd rice). The fresh fruit is also used frequently in *pachadis* (fresh pickle served as a side dish).

The Belgian *Witbier* meaning “white beer” (a wheat beer) is often spiced with the peel of the bitter orange.

In Finland and Sweden, bitter orange peel is used in dried, ground form (called *pomeranssi* in Finnish, *pomerans* in Swedish) in gingerbread (*pepparkakor*), some Christmas bread, and *mämmi* (a traditional Finnish dessert, eaten around Easter).

In Denmark, the candied peel (Danish *pomeransskal*) is used in various desserts and cakes, such as Christmas cake (*julekage*) and Brown cake (*brunekager*). It is also used in the traditional Nordic *glögi* (*glögg* or *gløgg* is a spiced, mulled wine or spirit drunk during winter, especially around Christmas).

In Greece and Cyprus, the *nerántzi* or κίτρομηλο, respectively, is one of the most prized fruits used for spoon sweets (sweet preserves made from any fruit, served in a spoon as a gesture of hospitality in Albania (*nerënxa* or *portokalli i hidhur*), Greece, Kosovo, Cyprus, the Balkans, parts of the Middle East and Russia).

The *C. aurantium* tree (*nerantziá* or *kitromiliá*) is a popular ornamental tree in the same areas. In Turkey, the juice of the ripe fruits can be used as salad dressing, especially in the Çukurova region (or the Cilician Plain, a large fertile plain in southern Turkey).

In Iraqi cuisine, bitter orange (*raranj* in Iraqi) is used to complement dishes such as charred fish (*samak* or *simach maskouf*), tomato stew (*morgat tamata*, *qeema*, a dish that has the same ingredients as an Iraqi tomato stew with the addition of minced meat), boiled chickpeas *lablabi* and on salads, as a dressing.

Iraqis also consume it as any other citrus fruit, or juice it to make bitter orange juice (*'aseer raranj*). Throughout Iran (where the fruit is commonly known as *narenj*), the juice is popularly used as a salad dressing, souring agent in stews and pickles, or as a marinade. The blossoms are collected fresh to make a prized sweet-smelling aromatic jam (bitter orange blossom jam, *morabba bahar-narenj*), or added to brewing tea.

In the Americas, the juice from the ripe fruit is used similarly to vinegar as a marinade for meat in Nicaraguan, Cuban, Dominican and Haitian cooking. It is used in Peruvian “ceviche” (also *cebiche*, *seviche*, or *sebiche*), a South American seafood dish made from fresh raw fish cured in fresh citrus juices, most commonly lemon or lime.

In Suriname, its juice is also used in the well-known dish “pom”, an oven dish made using arrowleaf elephant ear root, and locally called “*pomtajer*”. In Yucatán (Mexico), it is a main ingredient in *cochinita pibil* (a traditional Yucatec Mayan slow-roasted pork dish).

In Cuba, a traditional Christmas-time dessert is made with the peel of the bitter orange cooked in syrup and eaten with cheese and *buñuelos*. Buñuelos are traditional fried dough fritters found in Spain, Latin America and Israel. As well as other regions connected to Spaniards or Sephardic Jews, including Southwest Europe, the Balkans, Anatolia, and other parts of Asia and North Africa.

Bitter orange essential oil is also used as a flavoring or additive for fruit preserves (jellies), candy (chewing gum, hard candy and candied fruit), desserts (ice cream, pies), sauces and chutneys, salad dressing and fermented wine.

## THE PHYTOCHEMISTRY OF BITTER ORANGE

The plant compounds in bitter orange, [which are called protoalkaloids](#), have been used for over 20 years in supplements for weight loss, athletic performance, skin care, appetite control, and brain health, as well as perfumery.

However, a [2016 study](#) and a [2018 study](#) showed that bitter orange extract (49 mg *synephrine*) and the plant’s natural uses neither harm your heart and nervous system nor excite nervous system activity, as some stimulants do.

Furthermore, the 2018 study has claimed that *synephrine* shouldn’t be classified as a stimulant. Synephrine is also found in other citrus fruits and their juices, such as mandarins and clementines.

Like [other citrus fruits](#), [bitter orange provides limonene](#)—a compound shown to have anti-inflammatory and antiviral properties. [Epidemiological studies](#) suggest that *limonene* may prevent certain cancers, namely colon cancer.

An ongoing [2020 study](#) is also exploring the use of *limonene* as a treatment for COVID-19, which is caused by novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). However, it has not been evaluated meticulously to translate its effects in humans despite its potential efficacy in preclinical studies due to many reasons, including lack of integrated approach. Bear in mind that limonene cannot prevent or cure COVID-19.

Another *protoalkaloid* found in bitter orange is *octopamine*. However, bitter orange extracts appear to contain little to no *octopamine*. Moreover, it’s thought to be metabolized very rapidly in the liver when consumed from the whole fruit. Likewise, it doesn’t appear to exert any beneficial or adverse effects on the human body.

The leaves of the bitter orange tree are [rich in vitamin C \(ascorbic acid\)](#), which acts as an antioxidant. What’s more, its peel has a [high content of flavonoids](#), which are potent antioxidants with high medicinal value.

Antioxidants are substances [that protect your body from disease](#) by preventing cell damage. They work by deactivating free radicals, which are unstable compounds that damage your cells, increasing inflammation and the risk of disease.

## BITTER ORANGE AS AN HERBAL STIMULANT

Bitter orange is also employed in herbal medicine (the study of *pharmacognosy* and the use of medicinal plants) as a stimulant (substance that increases activity of the central nervous system) and appetite suppressant (an anorectic or anorexic substance).

Bitter orange extract and peel have been marketed as dietary supplement purported to act as a weight-loss aid and appetite suppressant. Bitter orange contains the *tyramine* metabolites *N-methyltyramine*, *octopamine* and *synephrine* (an alkaloid).

In addition, *synephrine* is structurally similar to your flight-or-fight hormones, epinephrine (also known as adrenaline) and norepinephrine. Epinephrine is a hormone involved in regulating visceral functions), which act on the alpha-1 ( $\alpha_1$ ) adrenergic receptor to constrict blood vessels (vasoconstriction), and [increase blood pressure and heart rate](#).

A [2013 60-day double-blind, placebo-controlled safety study](#) involving *Citrus aurantium* (bitter orange) extract showed these extracts in dietary supplements to be safe to consume in doses of 50–98 mg per day. One [2017 study](#) showed that 40 mg of *synephrine* combined with 320 mg of caffeine is a safe dose for these combined ingredients. In a [2004 clinical trial](#), eating a whole bitter orange containing 30.6 mg of *synephrine* revealed no interactions with medications.

But case reports (patient reports) have linked bitter orange supplements to strokes, angina, and ischemic colitis (injury of the large intestine resulting from inadequate blood supply). Following an incident in which a healthy young man suffered a myocardial infarction (heart attack) linked to bitter orange, a case study found that dietary supplement manufacturers had replaced ephedra with bitter orange analogs.

Whether bitter orange affects medical conditions of heart and cardiovascular organs, by itself or in formulas with other substances, is inconclusive.

Standard reference materials have been released concerning the properties of bitter orange by the [National Institute of Standards and Technology](#) (NIST) for the ground fruit, the extract, and in solid oral dosage form, as well as for those packaged together into one formulation.

The [National Collegiate Athletic Association](#) (NCAA) has placed "*synephrine* (bitter orange)" on its [current list of banned drugs](#), listing it as a stimulant.

#### BITTER ORANGE SIMILARITIES TO EPHEDRA

*Synephrine* [is structurally similar to ephedrine](#), the main component in the herb ephedra (a genus of gymnosperm shrubs), but *synephrine* has different pharmacologic properties (how the component acts). The U.S. [Food and Drug Administration](#) (FDA) banned the use of ephedra in dietary supplements because it raises blood pressure and is [linked to heart attack and stroke](#).

Following these bans in the U.S., Canada, and other parts of the world, bitter orange has been substituted into "ephedra-free" dietary supplement for herbal weight-loss. Like most dietary supplement ingredients, bitter orange has not undergone formal safety testing, but it is believed to cause the same spectrum of adverse events (harmful side effects) as ephedra.

The U.S. [National Center for Complementary and Integrative Health](#) (NCCIH) has stated that currently little evidence shows that bitter orange is safer to use than ephedra.

#### THE HEALTH AND BEAUTY BENEFITS OF BITTER ORANGE ESSENTIAL OIL

Today, various bitter orange products are promoted for heartburn, nasal congestion, weight loss, appetite stimulation or suppression, and athletic performance. Bitter orange is also applied to the skin for pain, bruises, fungal infections and bedsores.

Bitter orange essential oil has antiseptic, carminative, sedative, stomachic, digestive, antidepressant, hypocholesterolemic, tranquilizer, anti-inflammatory, choleric, antifungal and antibacterial

properties. Its major chemical constituents are *synephrine*, tyramine metabolites *N-methyltyramine*, *pinene*, *carotenoids*, *limonene*, *cymene*, *camphene*, *octopamine*, *ocimene* and few other alkaloids.

### **1. Aids in Weight Loss**

Bitter orange and other citrus varieties, like red orange (*Citrus sinensis* L. Osbeck) and their active components show potential for weight management and obesity. Moro orange is a cultivar of red orange.

In a [2015 clinical study](#), the effect of Moro juice extract (400 mg) was evaluated in overweight healthy human volunteers for 12 weeks. Results showed that the juice extract induced a significant reduction in body mass index (BMI) after only 4 weeks of treatment.

However, a [2004 review](#) on the research status of *Citrus aurantium*'s use for weight loss showed that *synephrine* has been shown to increase fat breakdown, raise energy expenditure and mildly suppress appetite, all of which may contribute to weight loss, but these effects occur only at high doses. And *octopamine* does not have lipolytic effects in human adipocytes.

In a [2012 study](#), the [Georgetown University Medical Center](#) revealed *Citrus aurantium* as the best thermogenic replacement for ephedra at the time of the study.

Many weight loss supplements use bitter orange extracts in combination with other ingredients, making it difficult to study which ingredient, if any, supports weight loss.

### **2. Improves Thyroid Function**

A [2020 animal study](#) findings suggest that citrus flavanones contribute to restoring the impaired thyroid functioning in older aged rats.

### **3. Enhances Digestion**

Bitter orange has been used in traditional medicine for the treatment of digestive problems like indigestion or sluggish digestion, intestinal gas, dyspepsia, constipation and nausea.

### **4. Alleviates Stress and Reduces Anxiety**

Bitter orange oil features a much similar aroma to that of fresh tangy oranges. Inhaling the energizing and enlivening fragrance of the oil especially during the early hours of the day guarantees a peaceful atmosphere as well as instills complete calmness in your thoughts. For this reason Ayurvedic healing suggests the usage of bitter orange oil throughout your meditation practice. Include 1 drop of bitter orange oil in your diffuser or air freshener and begin your deep meditation after which you'll feel a never before freshness while increasing within your confidence level.

### **5. Boosts Energy**

Perhaps among the top benefits of the regular usage of bitter orange oil is its amazing capability to restore energy. Through frequent aromatherapy, you can put a spring within your step and gain extra energy during the day. It will not only help to keep your house smelling great, however it may also make sure you have ongoing energy to do your most significant tasks.

### **6. Supports Skin Health**

Vitamin C plays a significant role in wound healing and collagen formation. Bitter orange essential oil may improve skin health due to its high vitamin C content. This essential oil has the ability to stimulate cell regeneration and improve skin's condition (texture and tone). Bitter orange essential oil is capable of adsorbing liquids and can be used to retain moisture in the skin barrier. This essential oil has

antiseptic and anti-inflammatory properties that many pharmaceutical industry formulations use as an ingredient in ointments and salves to treat cases of skin infections.

It has astringent and antibacterial properties, which benefit oily or acne-prone skin. Helps cleanse while toning the skin. Beneficial for lightening dark sun spots (hyperpigmentation). Useful in fighting fungi, it is used for the treatment of necrotic infections and athlete's foot. It is used in products to control gum bleeding and for fighting periodontal disease.

This essential oil contains flavonoids, which are known to have venotonic properties, it is sometimes used in cosmetic formulations (lotions, creams) to prevent capillary fragility, for cellulite and skin firming. It is often used as an ingredient in anti-wrinkle creams.

#### 7. Supports Scalp Health

Dandruff is a "fungi" that affects the scalp, the active compounds in bitter orange essential oil can reduce the effects of dandruff (flaking).

#### 8. In Aromatherapy

Bitter orange essential oil can be used in the form of vapor in an oil burner or diffuser. Or in a relaxing hot bath by adding one drop of oil to hot water. It should be noted that it is effective in cases of postpartum depression.

#### 9. In Massage Therapy

Bitter orange essential oil can be diluted with a carrier oil (e.g. almond, wheat germ, sesame, jojoba, grapeseed) for massage.

#### 10. Improves Athletic Performance

Another [study in 2015](#) noted that the bitter orange compound *synephrine* may improve athletic performance by increasing total reps and volume load, or the ability to train harder.

### THE THERAPEUTIC USES OF BITTER ORANGE ESSENTIAL OIL

Bitter orange and its extracts are [used in traditional Chinese medicine](#) (TCM) to treat indigestion, nausea, diarrhea, dysentery and constipation. The fruit has been used to treat anxiety and epilepsy. It has also been used for symptoms of premenstrual syndrome (PMS). It is used in Ayurvedic medicine as an aid to meditation.

Bitter orange essential oil has also been used for treating chronic fatigue syndrome, intestinal ulcers, lowering blood sugar levels in diabetic patients, joint pain, muscle aches, bruises, and some liver and gall bladder dysfunctions. It is commonly used in complementary medicine in the form of [herbal weight loss supplements](#).

1. **Digestive Aid:** Massage your stomach with 2 drops of bitter orange essential oil diluted with sesame oil. Alternatively, you may also add 2 drops of bitter orange essential oil to a hot bath.
2. **To Soothe Joint Pain:** Blend 6 drops bitter orange essential oil and 6 drops of a carrier oil (such as sweet almond or sesame), apply to the affected areas.
3. **To Ease Anxiety:** Mix equal parts bitter orange, neroli and sweet orange essential oils and diffuse in an oil burner or diffuser. Alternatively, dilute with a carrier oil and apply to the neck and shoulders with a gentle massage.
4. **To Lift Mood:** Fill a bathtub with hot water, add 4 drops of bitter orange essential oil and 2 drops of neroli essential oil. Soak in a long bath.
5. **To Cleanse Oily or Combination Skin:** Mix equal parts bitter orange, sandalwood and ylang-ylang essential oils. Apply to the skin every night before bed and wash off the next morning.

## PRECAUTIONS

Like many of essential oils, bitter orange essential oil is often adulterated with sweet orange essential oil (*Citrus sinensis*), synthetic orange terpenes, fatty aldehydes and esters, which will undermine its therapeutic value.

Bitter orange essential oil is known to be photo-toxic when applied topically to the skin. Avoid sun exposure or tanning beds for 12 hours after applying bitter orange essential oil to the skin (in the form of massage, lotion or bath).

Bitter orange essential oil is available as a 100% pure essential oil but should not be applied to skin before it is diluted into a carrier oil, ointment, gel or cream form. In any form, bitter orange essential oil should never be used on broken or damaged skin. Do not apply directly to open wounds.

Bitter orange essential oil should only be used for topical application. Never use bitter orange essential oil in eyes or in mucous membranes. Never ingest essential oils. Avoid prolonged use, prolonged use may cause skin irritation or an allergic reaction. Be cautious when combining use of this oil with caffeine, as it can cause increases in blood pressure and heart rate.

## DRUG INTERACTIONS OF BITTER ORANGE

Bitter orange may have serious interactions with drugs such as statins (to lower cholesterol), *nifedipines* (a calcium channel blocker used to manage angina, high blood pressure, Raynaud's phenomenon and premature labor), some anti-anxiety drugs and some antihistamines, in a similar manner to grapefruit-drug interactions.

Furthermore, one [2017 study](#) determined that bitter orange juice contains *furancoumarin*, a compound that may cause the same medication interactions as grapefruit juice.

Individuals with severe hypertension, tachyarrhythmias, and narrow-angle glaucoma and monoamine oxidase inhibitor recipients should avoid bitter orange juice consumption. Persons taking [decongestant-containing cold preparations](#) or any a treatment that contains cyclosporine should also refrain from bitter orange juice intake. It's unclear whether bitter orange supplements pose the same risks.

## CONTRAINDICATIONS

Topical use of bitter orange essential oil is not safe for people with hypersensitive skin, or women who are pregnant or breastfeeding due to a lack of safety information. Bitter orange essential oil can induce premature labor due to the stimulating effects. Bitter orange essential oil may be used safely by pregnant or breastfeeding women strictly for aromatherapy in a diffuser, with a recommended dose of no more than 4 drops with a little water and only for 15 minutes at a time with very long breaks in between.

Use essential oils with extreme caution on children, do not use bitter orange essential oil on children. Some brands clearly label their essential oils "KidSafe" on the bottle if it can be used on children ages 2–10.

When applying bitter orange essential oil topically (on your skin), always perform a 24-hour skin patch test first using 1–2 drops, [read how for further details](#). Wear gloves if handling this essential oil in its pure form as direct contact may cause allergic dermatitis (an allergic reaction of the skin). Only use bitter orange essential oil in diluted form. Use almond or grapeseed as a carrier oil for dilution.

Use only 100% authentic oils. Bitter orange essential oil can have a long shelf life if stored properly in tightly-sealed dark glass containers. Keep in a cool and dry place, such as a dresser drawer or kitchen cabinet. Keep away from extreme heat and cold temperatures.

Bitter orange essential oil products come with expiration dates. Bitter orange essential oil's freshness can be difficult to preserve. Preservation with olive oil is possible in a ratio of 1:10. Good quality bitter orange essential oil is orange–yellow to green–yellow in color and thin in consistency.

Manufacturer's advice against using bitter orange essential oil products beyond this date. Any bitter orange essential oil product whose use–by date has passed, should be discarded. Signs that it has expired includes changes in scent, texture and color. If you are interested in trying bitter orange essential oil, be sure to choose a product that is 100% pure and organic. Bitter orange essential oil can be found online.