



Egyptian Herbal Monograph

Egyptian Herbal Monograph

Volume 3

Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

2026





Egyptian Herbal Monograph

Medicinal Plants Used in Egypt

Guava, Tilia, Eucalyptus

جوافة / تيليو / كافور

1. Names & Synonyms

Guava (1)

Psidium guajava L.

Family: Myrtaceae.

Syns.: *Psidium aromaticum*, *P. cujavillus* Burm, *P. pomiferum*, *P. pyriferum*, *P. pumilum*.

Arabic: Gawafa جوافة

English name: Guava.

Tilia (2,3)

Tilia cordata Mill.

Family: Tiliaceae (Malvaceae).

Arabic: Tilio تيليو

English: Lime flower (4), Linden, Tilia and small leaf linden, small leaf lime (5).

Tilia platyphyllos Scop.

Family: Tiliaceae (Malvaceae)

Arabic: Tilio تيليو

English: Lime flower (4), Linden, Tilia and large-leaf Linden

Tilia x vulgaris Heyne

Naturally-occurring hybrid of *T. cordata* and *T. platyphyllos* Scop.

Family: Tiliaceae (Malvaceae)

Syn: *T. europaea* auct. non L.



Arabic: تيليو Tilio

English: European linden, European lime tree, Linden and Tilia (5).

Eucalyptus (6)

***Eucalyptus globulus* Labill.**

Family: Myrtaceae.

Syns.: *Eucalyptus maidenii* subsp. *globulus* (Labill.) J.B.Kirkp.

Arabic name: Kafur كافور (7)

English name: Eucalyptus (8)

2. Parts used for medicinal purpose

Guava: Dried leaves (1).

Tilia: Flowers (2,3,6).

Eucalyptus: Fresh /dried leaves (8,9).

3. Major chemical constituents

Guava

Phenolic Compounds (10)

- Flavonoids: Quercetin and its glycosides, avicularin, apigenin, guaijaverin, kaempferol, kaempferol-3-arabofuranoside, hyperin, myricetin, rutin, catechin, epicatechin, epigallocatechin gallate and proanthocyanidins.
- Phenolic acids: Gallic acid and caffeic acid.

Essential Oil (11,12)

- β -Caryophyllene, 4 α -selin-7 (11)-enol, β -caryophyllene oxide, α -selinene, β -selinene, δ -cadinene, daucol, cubenol, 1,8-cineole (eucalyptol) and aromadendrene.

Others (10)

- Sugars: Sulphated and unsulphated polysaccharides (uronic acid), minerals (calcium, potassium, sulfur, sodium, iron, boron, magnesium, manganese and zinc), vitamins (C and B) and macronutrients (protein and fat).



Tilia

- **Flavonoids:** Kaempferol, quercetin, myricetin and their glycosides (mainly Kaempferol-3-*O*- β -D-(6"-E-*p*-coumaroyl)-glucopyranoside "tiliroside") and proanthocyanidins (4,13).
- **Phenolic acids:** Caffeic, chlorogenic and *p*-coumaric acids (4,13).
- **Essential oil:** Alkanes (mainly tricosane) (14), phenolic alcohols and esters, and terpenes including citral, citronellal, citronellol, eugenol, limonene, nerol, α -pinene and terpineol (monoterpenes), and farnesol (sesquiterpene) (4).
- **Others:** Mucilage, tocopherol (phytosterol) and amino acids (4).

Eucalyptus

- **Essential oils:** 1,8-Cineole (eucalyptol), *p*-cymene, α -pinene and α -limonene (15).
- **Others:** Chlorogenic and ellagic acids, quercetin, quercetin 3-glucuronide, luteolin and rutin (16).

4. Medicinal Uses (Indications)

- A. Relief of cough associated with cold (4,17).
- B. Expectorant and for symptomatic treatment of mild inflammation of the respiratory tract, bronchitis, asthma and inflammation of the throat (4, 5, 9).

5. Herbal preparations correlated to medicinal use

Combination of aqueous liquid extracts of guava, tilia and eucalyptus.

Herbal preparations are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.



6. Posology and method of administration correlated to medicinal use

Adolescents, adults and elderly: Combination of 0.458g of guava extract, 0.115g of tilia extract and 0.015g of eucalyptus extract, 3 times daily.

Duration of use: If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a qualified health care practitioner should be consulted.

Method of administration: oral use.

7. Contraindications.

- Hypersensitivity to active substances and to other plants of the same families.
- Patients with inflammation of the gastrointestinal tract, gall bladder disease or impaired liver function (9).
- Children with history of seizures (febrile or not) (17).

8. Special warnings and precautions for use (8,17)

- If the symptoms worsen or if dyspnoea, fever or purulent sputum occurs during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- The use in children under 12 years of age is not recommended.
- It should be used with caution in inflamed and ulcerated conditions of the gastrointestinal tract.

9. Interactions with other medicinal products and other forms of interaction

- None reported.

10. Fertility, pregnancy and lactation

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.



- No fertility data available.

11. Effects on ability to drive and use machines

- No studies on the effect on the ability to drive and use machines have been performed.

12. Undesirable effects

- None reported.
- If adverse reactions occur, a doctor or a pharmacist should be consulted.

13. Overdose

- No case of overdose has been reported.

14. Relevant biological activities

- Not required as per Egyptian guidelines for registration of herbal medicines.

15. Additional information

-

16. Date of compilation/last revision

27/04/2026



References

1	WHO monographs on selected medicinal plants (2007). Monographs on selected medicinal plants, 4 , 127-139.
2	Assessment Report on <i>Tilia cordata</i> Miller, <i>Tilia platyphyllos</i> Scop., <i>Tilia x vulgaris</i> Heyne or Their Mixtures, Flos (2012). EMA/HMPC/337067/2011. Committee on Herbal Medicinal Products (HMPC)
3	Barnes, J., Anderson, L. A. and Phillipson, J. D. (2007). Herbal Medicines, 3 rd edition. Published by the Pharmaceutical Press. ISBN 978 0 85369 623 0.
4	Community Herbal Monograph on <i>Tilia cordata</i> Miller, <i>Tilia platyphyllos</i> Scop., <i>Tilia x vulgaris</i> Heyne or Their Mixtures, Flos (2012). EMA/HMPC/337066/2011. Committee on Herbal Medicinal Products (HMPC).
5	Natural Health Product, Linden, Small Leaf – <i>Tilia cordata</i> (2017). Health Canada, http://webprod.hc-sc.gc.ca/nhpid-bdipsn/atReq.do?atid=linden.tilleul.smallleaf.Petitesfeuilles &lang=eng
6	https://powo.science.kew.org .
7	Quattrocchi, U. (2016). CRC World Dictionary of Medicinal and Poisonous Plants. Common Names, Scientific Names, Eponyms, Synonyms, and Etymology (5 Volumes Set). CRC Press, https://doi.org/10.1201/b16504 . E-book ISBN 9780429171482.
8	European Union herbal monograph on <i>Eucalyptus globulus</i> Labill., folium (2013). EMA/HMPC/892618/2011. Committee on Herbal Medicinal Products (HMPC).
9	WHO monographs on selected medicinal plants (2002). Monographs on Selected Medicinal Plants, 2 , 97 - 113.
10	Kumar, M., Tomar, M., Amarowicz, R., Saurabh, V., Nair, M. S., Maheshwari, C., Sasi, M., Prajapati, U., Hasan, M., Singh, S., Changan, S., Prajapat, R. K, Berwal, M. K. and Satankar, V. (2021). Guava (<i>Psidium guajava</i> L.) leaves: Nutritional composition, phytochemical profile, and health-promoting bioactivities. <i>Foods</i> , 10 , 752.
11	Karawya, M. S., Abdel Wahab, S. M., Hifnawy M. S., Azzam S. M. and EL- Gohary H. M. (1999). Essential oil of Egyptian Guajava leaves. <i>Egypt. J. Pharm. Sci.</i> , 40 (2), 209-217.
12	El-Ahmady, S. H, Ashour, M. L. and Wink, M. (2013). Chemical composition and anti-inflammatory activity of the essential oils of <i>Psidium guajava</i> fruits and leaves. <i>The Journal of Essential Oil Research</i> , 25 (6), 475–481.



هَيْئَةُ الدَّوَاءِ الْمَصْرِئِيَّةِ

Egyptian Herbal Monograph

13	Evans, W. C., Evans, D., & Trease, G. E. (2009). Trease and Evans Pharmacognosy (16 th ed.). Edinburgh; New York: Saunders/Elsevier. ISBN 9780702029332.
14	Fitsiou, I., Tzakou, O., Hancianu, M. and Poiata, A. (2007). Volatile constituents and antimicrobial activity of <i>Tilia tomentosa</i> Moench and <i>Tilia cordata</i> Miller oils. <i>Journal of Essential Oil Research</i> , 19 , 2, 183-185, DOI: 10.1080/10412905.2007.9699255
15	Čmiková, N., Galovičová, L., Schwarzová, M., Vukic, M. D., Vukovic, N. L., Kowalczewski, P. Ł., Bakay, L., Kluz, M. I., Puchalski, C. and Kačániová, M. (2023). Chemical composition and biological activities of <i>Eucalyptus globulus</i> essential oil. <i>Plants</i> (Basel), 12 (5), 1076. doi: 10.3390/plants12051076. PMID: 36903935, PMCID: PMC10004840.
16	Shala, A. Y. and Gururani, M. A. (2021). Phytochemical properties and diverse beneficial roles of <i>Eucalyptus globulus</i> Labill.: A review. <i>Horticulturae</i> , 7 , 450. https://doi.org/10.3390/horticulturae7110450
17	European Union herbal monograph on <i>Eucalyptus globulus</i> Labill., <i>Eucalyptus polybractea</i> R.T. Baker and/or <i>Eucalyptus smithii</i> R.T. Baker, <i>aetheroleum</i> (2014). EMA/HMPC/307781/2012. Committee on Herbal Medicinal Products (HMPC).