

Egyptian Herbal Monograph

Volume 2

Medicinal plants used in Egypt

Egyptian Drug Authority (EDA)

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***Eucalyptus globulus* Labill.**

كافور

1. Names & Synonyms (1)

Eucalyptus globulus Labill.

Family: Myrtaceae.

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

Arabic name: Kafur كافور (2).

English name: Eucalyptus (3).

2. Parts used for medicinal purpose

Fresh /dried leaves (3, 4).

3. Major chemical constituents

- **Essential oils:** 1,8-Cineole (eucalyptol), *p*-cymene, α -pinene and α -limonene (5).
- **Others:** Chlorogenic and ellagic acids, quercetin, quercetin 3-glucuronide, luteolin and rutin (6).

4. Medicinal Uses (Indications)

- A. Relief of cough associated with cold (3, 7).
- B. Expectorant and for symptomatic treatment of mild inflammation of the respiratory tract, bronchitis, asthma, inflammation of the throat and fever (4).
- C. Symptomatic relief of localized and rheumatic muscle pain (4, 7).

5. Herbal preparations correlated to medicinal use

- 1) Comminuted herbal substance is added to hot water in the form of infusion (3, 4).
- 2) Tincture (1:5), extraction solvent: Ethanol 68-80% (3).
- 3) Essential oil (4, 7).

Herbal preparations (2 and 3) 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

Preparation 1 (3, 4)

Indications A and B

Adolescents, adults and elderly

- **Oral use:** Single dose: 1.5 - 3 g in 150 ml of boiling water as a herbal tea, up to 4 times daily. Daily dose: 4.5 - 12 g.
- **Inhalation:** 3 g in boiling water, up to 3 times daily. Daily dose: 3 - 9 g.

Preparation 2 (3, 8)

Indications A and B

Adults

Oral: Single dose: 2.5 g, up to 4 times daily. Daily dose: 2.5 - 10 g.

Preparation 3

Indications A and B

Oral use (4):

Adolescents, adults and elderly

- Single dose: 100 - 200 mg, 2 - 5 times daily (7).
- 0.3 - 0.6 ml, daily.

Buccal use:

Adolescents, adults and elderly (4)

- 0.2 - 15.0 mg as lozenges, dissolved slowly in the mouth, every 30 - 60 minutes
- 20 ml of a 0.91 mg/ml solution as mouth wash, gargled twice daily.

Inhalation (7):

Adolescents, adults and elderly

Single dose: Up to 3 - 8 drops per 150 - 250 ml boiling water, 3 times daily (3).

Children between 4 and 12 years of age

Single dose: Up to 2 - 4 drops per 250 ml boiling water, 3 times daily.

Bath additive (7):

Adolescents, adults and elderly

Single dose: 1.5 - 6 g /100 liter water, 3 - 4 times a week.

Children between 4 and 12 years of age: Single dose: 0.5 - 3 g /100 liter water, 3 - 4 times a week.

Recommended bath temperature: 35 - 38°C for 10 - 20 minutes.

Indications A and C**Cutaneous use****Adults and elderly (4)**

- Several drops or 30 ml essential oil in 500 ml warm water, rubbed into the skin for local application.
- 5 – 10% in hydroalcoholic preparations (8).
- Liquid dosage forms (5 - 20%): A few drops on chest or back, 2 - 3 times, daily (7).
- Semi-solid dosage forms (5-20% Eucalyptus oil): Apply a thin layer on chest and back, 2 - 3 times daily (7, 8).

Children between 4 and 12 years of age and adolescents (7)

- Liquid dosage forms: A few drops on chest or back, 2 - 3 times daily.
- Semi-solid dosage forms (10% Eucalyptus oil): Apply a thin layer on chest and back, 2 - 3 times daily.

Bath additive (7)**Children between 4 and 12 years of age, adolescents, adults and elderly:**

Single dose: 1.7- 4 g essential oil /100 liter water, 3 - 4 times a week.

Recommended bath temperature: 35 - 38°C for 10-20 minutes.

Duration of use (4, 7)

Indications A and B: If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.

Indication C:

- **As bath additive:** If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- **Cutaneous use:** If the symptoms persist longer than two weeks during the use of the medicinal product, a doctor or a pharmacist should be consulted.

Method of administration (4, 7):

Indication A: Oral, buccal, cutaneous, inhalation and as bath additive.

Indication B: Oral, buccal, cutaneous and as bath additive.

Indication C: Cutaneous and as bath additive.

7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- Children under 30 months of age, because there is a risk that cineole containing preparations, like other essential oils, can induce laryngospasm (7).
- Patients with inflammation of the gastrointestinal tract, gall bladder disease or impaired liver function (4).

- Infants and small children should not have preparations containing the oil applied to their faces as this practice can lead to glottal or bronchial spasms, asthma-like attacks or even death by asphyxiation (8).
- Children with history of seizures (febrile or not) (7).
- Full hot baths are contraindicated in cases of large skin injuries and open wounds, acute skin diseases, high fever, severe infections, severe circulatory disturbances and cardiac failure (7).

8. Special warnings and precautions for use

- **For indication A:** When dyspnoea, fever or purulent sputum occurs, a doctor or a pharmacist should be consulted (3, 7).
- **For preparation 1:** The use in children under 12 years of age has not been established (3).
- **For preparation 2:** The use in children and adolescents under 18 years of age has not been established (3).
- **For preparation 3 (7):**
 - o The use in children between 2.5 and 4 years of age has not been established.
 - o Cutaneous use: Eye contact with unwashed hands after the application of eucalyptus oil may potentially cause irritation. Eucalyptus oil should not be applied on broken or irritated skin.
 - o Oral use: Eucalyptus oil should be used with caution in inflamed and ulcerated conditions of the gastrointestinal tract.
 - o **For indication A:** The oral use in children under 12 years of age has not been established.
 - o When reddening or swelling of the aching parts occur a doctor or a pharmacist should be consulted.

9. Interactions with other medicinal products and other forms of interaction (3, 7)

- None reported.

10. Fertility, pregnancy and lactation (3, 7)

- 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 (3, 7)

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

12. Undesirable effects (3, 7)

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

13. Overdose

- **For preparations 1 and 2:** No case of overdose has been reported (3).
- **For preparation 3 (7):**
 - Cutaneous use: Accidental overdose may cause skin irritation.
 - Inhalation: No case of overdose has been reported.
 - Buccal use: Accidental overdose may cause gastrointestinal symptoms, vomiting, diarrhoea, nausea, loss of consciousness, apnoea, respiratory problems, tachypnea, ataxia and other CNS problems, dilated or constricted pupils.

14. Relevant biological activities

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

15. Additional data

16. Date of last compilation/last revision

25/12/2023

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