



Egyptian Herbal Monograph

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## Volume 3

### Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

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## Herbal Formulations Used in Egypt

**Marshmallow , Licorice, Eucalyptus oil, Anise oil**

**الخطمية / عرقسوس / زيت الكافور / زيت الينسون**

### 1. Names & Synonyms

#### Marshmallow

***Althaea officinalis* L. (1, 2).**

**Family:** Malvaceae.

**Syns.:** *Malva althaea* E. H. L. Krause, *Malva officinalis* (L.) K. F. Schimp. & Spenn. (3).

**Arabic:** Marshmallow مارشمالو, Al khatmia الخطمية, الختمية, Al Khatmy الخطمي, Khairu خيرو (4).

**English:** Marshmallow, White-mallow (5).

#### Licorice (6)

***Glycyrrhiza glabra* L. and its varieties or *Glycyrrhiza uralensis* Fisch.**

**Syn.** *Liquiritae officinalis* Moench.

**Family:** Fabaceae (Leguminosae).

**Arabic:** Irksos, Erqsos عرقسوس

**English:** Licorice, Licorice root, liquorice, liquorice root, sweet root and sweet wood.

#### Eucalyptus

***Eucalyptus globulus* Labill. (7)**

**Family:** Myrtaceae.

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

**Arabic name:** Kafur كافور (8).

**English name:** Eucalyptus (9).



## Anise

*Pimpinella anisum* L. (10)

**Family:** Apiaceae (Umbelliferae).

**Syns:** *Anisum officinarum* Moench., *A. vulgare* Gaertn., *Apium anisum* L. Crantz., *Carum anisum* L. Baill., *Pimpinella anisum cultum* Alef., *P. aromatica* Bieb., *Selinum anisum* L. E.H.L. Krause., *Sison anisum* Spreng., *Tragium anisum* Link.

**Arabic:** Yansoon ينسون

**English:** Anise, Aniseed.

## 2. Parts used for medicinal purpose

- **Marshmallow:** dried root (1, 2, 11-13).
- **Licorice:** Dried Root (6,14-16) and rhizome (6, 16).
- **Eucalyptus oil:** Fresh leaves (9, 17).
- **Anise oil:** Dried ripe fruits (18).

## 3. Major chemical constituents

### Marshmallow

- **Acidic polysaccharides:** Mucilage (galacturono-rhamnans, arabinans, glucans, arabinogalactans) (1, 19).
- **Flavonoids:** Hypolaetin-8-glucoside, isoquercitrin, kaempferol (20).
- **Phenolic acids:** Caffeic, *p*-coumaric, ferulic, *p*-hydroxybenzoic and syringic acids (1, 19).
- **Others:** Starch, pectin, asparagine, calcium oxalate, coumarins (scopoletin), sucrose, amino acids and tannins (1, 19, 20).

### Licorice

- **Saponins:** Glycyrrhizin and glycyrrhizic acid (glycyrrhizinic acid), as a mixture of potassium and calcium salts.



- **Flavonoids:** Glycosides of liquiritigenin and isoliquiritigenin, such as liquiritin, isoliquiritin, liquiritin apioside and licuraside (21).

- **Others:** Essential oil (mainly geraniol and geranyl hexanolate) and sterols ( $\beta$ -sitosterol, dihydrostigmasterol) (22).

**Eucalyptus oil:** 1,8-Cineole (eucalyptol), *p*-cymene,  $\alpha$ -pinene and  $\alpha$ -limonene (23).

**Anise oil:** Contains mainly trans-anethole, estragole (methylchavicol, isoanethole),  $\beta$ -anisaldehyde,  $\alpha$ -terpenol, *cis*-anethole (10).

#### 4. Medicinal uses (Indications)

Demulcent preparation for the symptomatic treatment of oral or pharyngeal irritation associated dry cough (5, 11, 13).

#### 5. Herbal preparations correlated to medicinal use

Combination of Marshmallow dry extract (extraction solvent: water), Licorice dry extract (extraction solvent: water, alcohol, or hydro-alcoholic), Eucalyptus oil and Anise oil.

**Herbal preparations are in liquid 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

**Adults and adolescents (12 years old and above):** Combination of 400mg of Marshmallow extract, 100mg of Licorice extract, 60mg of Eucalyptus oil and 60mg of Anise oil, 3 times daily.

**Children (4 years – 12 years):** Combination of 100mg of Marshmallow extract, 25mg of Licorice extract, 15mg of Eucalyptus oil and 15mg of Anise oil, 3 times daily.



**Duration of use:**

- Not to be used more than one week.
- If the symptoms persist longer than one week during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- Use only under medical prescription.

**Method of administration:** Oral use.

**7. Contraindications**

- Hypersensitivity to active substances or other plants of the same family.
- Cholestatic liver disorders, liver cirrhosis, hypertonia, hypokalemia, severe kidney insufficiency and cardiovascular-related disorder, because Licorice ingestion has resulted in symptoms of primary hyperaldosteronism, such as water and sodium retention and hypokalemia (1).

**8. Special warnings and precautions for use**

- 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 (9, 24).
- Patients taking this medication should not take other Licorice containing products as serious adverse events may occur such as water retention, hypokalemia, hypertension, cardiac rhythm disorders (14).
- This medication is not recommended to be used in patients affected by hypertension, kidney diseases, liver or cardiovascular disorders or hypokalemia, as they are more sensitive to the adverse effects of Licorice (14,16).
- It should be used with caution in inflamed and ulcerated conditions of the gastrointestinal tract (24).
- Absorption of concomitantly administered medicines may be delayed. As a precautionary measure, the product should not be taken ½ to 1 hour before or after intake of other medicinal products.



- Use in children in age from 4 to 12 years is not recommended without medical supervision.

## 9. Interactions with other medicinal products and other forms of interaction (14, 16)

- Not to be used concomitantly with diuretics, cardiac glycosides, corticosteroids, stimulant laxatives or other medications which may aggravate electrolyte imbalance.
- The product may counteract antihypertensive action of prescribed medications.
- **Azole antifungals:** it may increase the levels of azole antifungals; avoid concurrent use.
- It may reduce the absorption of iron salts; separate by two hours.
- Concurrent use with grapefruit juice may increase corticosteroid action of Licorice.
- It may increase hypoglycemic action of Antidiabetics and Hypoglycemic herbs.

## 10. Fertility, pregnancy and lactation

- The use during pregnancy and lactation should be avoided (1).
- 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

- Allergic reactions affecting the skin, or the respiratory system may occur (16).
- If adverse reactions occur, a doctor or pharmacist should be consulted.



### 13. Overdose

- Overdose may cause nausea, vomiting, seizures and pulmonary oedema (10, 16).
- Prolonged use (more than 4 weeks) and/or intake of high amount of the product, may lead to overdose, which could result in symptoms such as water retention, hypokalemia, hypertension, cardiac rhythm disorders, hypertensive encephalopathy (14) and in rare cases, myoglobinuria (14, 25).
- Hypoglycemia, anorexia, and hypersensitivity reactions (16).

### 14. Relevant biological properties

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

### 15. Additional information

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### 16. Date of compilation/last revision

23/04/2026



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