



Uses of Pistacia lentiscus in the Mediterranean region

Faten Mezni, Boutheina Stiti, Sondes Fkiri

INRGREF



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The used parts of mastic tree

Seeds



Twigs

Mastic

Roots

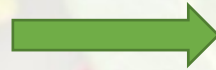


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Twigs



Essential oil: used as a decongestant of the venous and lymphatic systems, it treats varicose veins and venous stasis, phlebitis and haemorrhoids.



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Twigs



Decoration



Christmas wreath



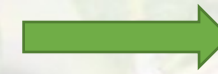
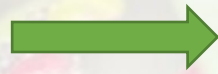
Bouquet of flowers



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Twigs



Leaves extract: is used in pottery for decoration



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Mastic



Mastic: Mastic is used for stomach and intestinal ulcers, breathing problems, muscle aches, and bacterial and fungal infections. It is also used to improve blood circulation.



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Mastic



Mastic gum: chewing mastic gum may help prevent cavities and reduce the levels of certain bacteria in the mouth.

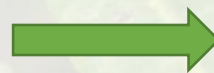
These bacteria can lead to plaque and gum disease.



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Mastic



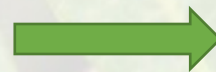
Mastic oil: traditionally used as food additive and flavoring agent and used in folk medicine for the treatment of gastrointestinal disorders.



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Roots



Root decoction: respiratory problems



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Seeds



Preparation of traditional meals



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Seeds



Fixed oil: used in traditional medicine for wound healing, ulcer and asthma treatment.



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Seed oil: biological properties

Important wound healing effect on burns¹ and Full-thickness excision wounds²

Anti-proliferative effects against cancer cells³ (more than 50% of cells in 24h)

Antibacterial and antifungal activities⁴ (*E. coli*, *Clostridium perfringens* and *Aspergillus niger*)



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Seed oil: biological properties

Protective effect against induced hepatic dysfunction and oxidative stress ⁵

Significant prophylactic and therapeutic effects against gastric ulcers ⁶

Significant anti-glycogenesis activity ⁷



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Seed oil: Biochemical properties

- Fatty acids composition ⁸:

Unsaturated fatty acids ($\geq 70\%$)

oleic acid (50%), Linoleic acid (20%), palmitic acid (20%)

- Sterols ⁹:

The main sterols were β -sitosterol (54%), cycloartenol (11%) and 24-methylene-cycloartenol (5%).



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Seed oil: Biochemical properties

■ Tocopherols ¹⁰:

The total tocopherol content reached 118.16 mg/kg oil

α -tocopherol and γ -tocopherol

α -tocopherol content reached 96.77 mg/kg oil

γ -Tocopherol amount reached 22.12 mg/kg oil



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Seed oil: Biochemical properties

- Carotenoids ¹⁰:

The total carotenoid content reached 10.57 mg/kg oil

lutein, zeaxanthin and **β-carotene**

- Phenols ¹¹:

The total phenols amount reached 4260.57 mg/kg oil

Phenolic profile of this oil showed that it is mainly composed of phenolic acids and flavones



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Thank you



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