

Blue Flag

Species (Family)

Iris versicolor L. or *Iris caroliniana* Watson (Irida-

Part(s) Used

Rhizome

Pharmacopoeial and Other Monographs

BHC 1992^(G6)

BHP 1996^(G9)

Martindale 32nd edition^(G43)

PDR for Herbal Medicines 2nd edition^(G36)

Legal Category (Licensed Products)

GSL^(G37)

Constituents^(G22,G40,G48,G64)

Acids Isophthalic acid 0.002%, salicylic acid, lauric acid, stearic acid, palmitic acid and 1-triacontanol.

Volatile oils 0.025%. Furfural.

Other constituents Iridin, β -sitosterol, iriversical⁽¹⁾ and tannin.

Food Use

Blue flag is not used in foods.

Herbal Use

Blue flag is stated to possess cholagogue, laxative, diuretic, dermatological, anti-inflammatory and anti-emetic properties. It has been used for skin diseases, biliousness with constipation and liver dysfunction, and specifically for cutaneous eruptions.^(G7,G64)

Dosage

Dried rhizome 0.6–2.0 g or by decoction three times daily.^(G6,G7,G10)

Liquid extract 1–2 mL (1:1 in 45% alcohol) three times daily.^(G6,G7,G10)

Pharmacological Actions

None documented.

Side-effects, Toxicity

It has been stated that the fresh root of blue flag can cause nausea and vomiting.^(G42)

Furfural, a volatile oil constituent, is known to be irritant to mucous membranes causing lachrymation, inflammation of the eyes, irritation of the throat, and headache.^(G48) Whether these irritant properties are attributable to the volatile oil of blue flag has not been established. Acute oral toxicity (rat, LD₅₀) for furfural has been documented as 127 mg/kg body weight.^(G48) Iridin has been reported to be poisonous in both humans and livestock.^(G22) However, it is unclear whether this substance is the same iridin documented as a constituent of blue flag.

Contra-indications, Warnings

Only small doses of the dried root are advisable, because of the risk of nausea and vomiting.^(G42) In view of the possible irritant nature of the volatile oil, blue flag may not be suitable for internal use, especially in sensitive individuals.

Pregnancy and lactation The safety of blue flag has not been established. In view of this, together with the documented irritant properties of some of the constituents, blue flag should not be taken during pregnancy.

Pharmaceutical Comment

Little is known about the phytochemical, pharmacological or toxicological properties of blue flag and its constituents, although related species are known to be toxic. In view of these factors, the use of blue flag is best avoided.

References

See also General References G6, G9, G10, G22, G31, G36, G37, G40, G42, G43, G48 and G64.

- 1 Krick W *et al.* Isolation and structural determination of a new methylated triterpenoid from rhizomes of *Iris versicolor* L. *Z Naturforsch* 1983; 38: 689–692.