

62073 Gum Galbanum

Botanical Name: Ferula galbaniflua, Galbanum. Family: N.O. Umbelliferae

There are two kinds of Galbanum in commerce, viz. Levant Galbanum and the Persian Galbanum. The Persian Galbanum is softer than the Levant, has a more terebinthic odour, has the smell and consistency of Venice turpentine, and contains fruit and fragments of stalks in place of bits of sliced roots.

Several species of Ferula are used as a source for commercial Galbanum, but the main and official plant is Ferula galbaniflua, a perennial, with smooth stem, and shining leaflets, ovate, wedge-shaped, acute and finely serrated on the edges. The umbels of flowers are few, the seeds shiny.

The whole plant abounds with a milky juice, which oozes from the joints of old plants, and exudes and hardens from the base of the stem after it has been cut down, then is finally obtained by incisions made in the root. The juice from the root soon hardens and forms the tears of the Galbanum of Commerce. The best tears are palish externally and about the size of a hazel nut and when broken open are composed of clear white tears.

The taste is unpleasant, bitterish, acrid, with a strong, peculiar, somewhat aromatic smell. The common kind is an agglutinated mass, showing reddish and white tears. It is of the consistency of firm wax, and can easily be torn to pieces and softened by heat. When cold it is brittle, and it is mixed with seeds and leaves. When imported in lumps it is often considered preferable to the tears, as it contains more volatile oil.

Distilled with water it yields a quantity of essential oil, about 6 drachms, to 1 lb. of gum. It was well known to the ancients and Pliny called it 'bubonion.'

Galbanum under dry distillation yields a thick oil of a bluish colour, which after purification becomes the blue colour of the oil obtained from the flowers of Matricaria Chamomilla.

Excerpt from "Pitman's Common Commodities and Industries, GUMS & RESINS – by Ernest J. Parry, London; Printed by Sir Isaac Pitman & Sons, Ltd, Bath, England, v-(1465E):

This gum resin is fairly closely allied to general character with ammoniacum. ... It is used to a small extent in medicine, and is found on the market in the form of lumps, and also in small tears. Some samples contain so much essential oil as to be semi-solid in consistence, but the greater part of the supply found in commerce is hard, with a somewhat greasy fracture, and contains about 8 to 10 per cent. of essential oil. In the very soft varieties as much as 22 per cent. has been found. The gum resin contains umbelliferone, together with a number of scarcely well-defined substances of complex constitution. It yields the fluorescent reaction with hydrochloric acid and ammonia described under ammoniacum, which is due to the presence of umbelliferone.

Beckurts and Bruche have recorded the following figures for five samples of the pure gum resin :

	Specific gravity	Ash	Resin	Acid value of resin	Ester value of resin
(1)	1.110	4.0 %	63 %	22	62
(2)	1.130	8.7 %	56 %	19	91
(3)	1.109	4.1 %	58 %	40	69
(4)	1.133	8.4 %	54 %	19	63
(5)	1.121	4.9 %	60 %	25	90