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PHARMACEUTICAL AIDS

OLIVE OIL

Synonyms : Salad oil; sweet oil; oleum olival.

Biological Source : Olive oil is a fixed oil obtained by expression of the ripe fruits of *Olea europaea* Linn.

Family: Oleaceae.

Geographical Source : Olive is a native of Palestine, Spain, South western United States and many other subtropical localities.

Characteristics:

- A pale yellow or light greenish-yellow nondrying oily liquid.
- Pleasanting delicate flavour.
- Taste is bland, it becomes faintly acrid.
- It is miscible with ether, chloroform, and carbon disulphide and is slightly soluble in alcohol.



Chemical Constituents

- Olive oil contains mixed glycerides of oleic acid (56–85%), palmitic (7–20%), linoleic (3–20%), stearic (1–5%), arachidic (0.9%), palmitoleic (3%), linolenic, eicosenoic, gadoleic, and lignoceric acids.
- The minor constituents are squalene up to 0.7%, phytosterol and tocopherols about 0.2%.

Identification Tests

Under UV radiation it gives deep golden-yellow colour, while refined oil gives pale blue fluorescence. Decolourization with charcoal removes fluorescence.

Uses

Olive oil is used in the manufacture of pharmaceutical preparations, soaps, textile lubricants, sulphonated oils, liniments, cosmetics, plasters; as food in salads, and for cooking and baking. It has demulcent, emollient, choleric or cholagogue, and laxative properties. It is a good solvent for parenteral preparations.

LANOLIN

Synonyms : Wool fat; Oesipos; Agnin; Alapurin; Anhydrous lanolin; Adeps lanae; Laniol.

Biological Source : Lanolin is the fat-like purified secretion of the sebaceous glands which is deposited into the wool fibres of sheep, *Ovis aries* Linn.,

Family : Bovidae.

Characteristics

Colour - yellowish white, tenacious, unctuous mass

Odour - Slight and characteristic.

Solubility - Insoluble in water, but soluble in chloroform or ether with the separation of the water.



Chemical Constituents

- The chief constituents of lanolin are cholesterol, iso-cholesterol
- Lanolin also contains esters of oleic and myristic acids, aliphatic alcohols such as cetyl, ceryl and carnaubyl alcohols, lanosterol, and agnosterol.

Identification Test:

Dissolve 0.5 g of lanolin in chloroform, and to it add 1 ml of acetic anhydride and two drops of sulphuric acid. A deep green colour is produced, indicating the presence of cholesterol.

Uses

- Lanolin is used as an emollient.
- As water absorbable ointment base in many skin creams and cosmetics.

BEESWAX

Synonyms : White beeswax, yellow beeswax, cera alba, and cera flava.

Biological Source : Beeswax is the purified wax obtained from honeycomb of hive bee, *Apis mellifera* Linn and other species of *Apis*.

Family : Apidae.

Geographical Source : It is mainly found in Jamaica, Egypt, Africa, India, France, Italy, California etc.

Characterisitcs

Yellow wax or Cera flava is yellowish to greyish brown coloured solid, with agreeable, honey-like odour and a faint, characteristic taste.

White wax is yellowish-white solid, somewhat translucent in thin layers. It has a faint, characteristic odour which is free from rancidity and tasteless.



Chemical Constituents

Beeswax contains myricin, which is melissyl palmitate, free cerotic acid , myricyl alcohol , melissic acid, some unsaturated acids of the oleic series, ceryl alcohol, and 12 to 13% higher hydrocarbons are present.

Uses

Beeswax is used in the preparation of ointments, plaster, and polishes.

Adulterants

Beeswax is adulterated by solid paraffin, ceresin, carnauba wax, or other fats and waxes of animal or mineral origin.