

Cod Liver Oil

肝油

Cod Liver Oil is the fatty oils obtained from fresh livers and pyloric appendages of *Gadus macrocephalus* Tilesius or *Theragra chalcogramma* Pallas (*Gadidae*).

Cod Liver Oil contains not less than 2000 Vitamin A Units and not more than 5000 Vitamin A Units per g.

Description Cod Liver Oil is a yellow to orange oily liquid. It has a characteristic, slightly fishy odor and a mild taste.

It is miscible with chloroform, with diethyl ether and with petroleum ether.

It is slightly soluble in ethanol (95).

Its decomposition is accelerated by air or by light.

Identification Dissolve 0.1 g of Cod Liver Oil in 10 mL of chloroform, and to 1 mL of this solution add 3 mL of antimony (III) chloride TS: a blue color develops immediately, but the color fades rapidly.

Specific gravity d_{20}^{20} : 0.918 – 0.928

Acid value Not more than 1.7.

Saponification value 180 – 192

Unsaponifiable matter Not more than 3.0%.

Iodine value 130 – 170

Purity Rancidity—No unpleasant odor of rancid oil is perceptible on warming Cod Liver Oil.

Assay Proceed with about 0.5 g of Cod Liver Oil, accurately weighed, as directed in Method 2 under the Vitamin A Determination, and perform the test.

Containers and storage Containers—Tight containers.

Storage—Light-resistant, and almost well-filled, or under nitrogen atmosphere.

Coix Seed

Coicis Semen

ヨクイニン

Coix Seed is the seed of *Coix lachryma-jobi* Linné var. *ma-yuen* Stapf (*Gramineae*), from which the seed coat has been removed.

Description Ovoid or broad ovoid seed, about 6 mm in length, and about 5 mm in width; with a slightly hollowed apex and base; dorsal side distended; ventral side longitudinally and deeply furrowed in the center; dorsal side mostly white in color and powdery; in the furrow on the ventral surface, attached brown, membranous pericarp and seed coat. Under a magnifying glass, the cross section reveals light yellow scutellum in the hollow of the ventral side. Hard in texture; odor, slight; taste, slightly sweet; adheres to the teeth on chewing.

Identification To a cross-section of Coix Seed add iodine

TS dropwise: a dark red-brown color develops in the endosperm, and a dark gray color develops in the scutellum.

Loss on drying Not more than 14.0% (6 hours).

Total ash Not more than 3.0%.

Powdered Coix Seed

Coicis Semen Pulveratum

ヨクイニン末

Powdered Coix Seed is the powder of Coix Seed.

Description Powdered Coix Seed occurs as a brownish, grayish white to grayish yellow-white powder, and has a slight odor and a slightly sweet taste.

Under a microscope, Powdered Coix Seed reveals starch grains, and fragments of endosperm containing them; fragments of tissue accompanied with epidermal cells of pericarp composed of yellowish and oblong cells, and fragments of parenchyma cells containing fixed oil, aleuron grains and starch grains; a very few fragments of spiral vessels. Starch grains are simple and 2-compound grains, simple grain nearly equidiameter to obtuse polygon, 10 – 20 μm in diameter, and have a stellate cleft-like hilum in the center. Spherical starch grains, coexisting with aleuron grains, are spherical simple grains, 3 – 7 μm in diameter.

Identification Place a small amount of Powdered Coix Seed on a slide glass, add dropwise iodine TS, and examine under a microscope: nearly equidiameter and obtuse polygonal simple starch grains, usually 10 – 15 μm in diameter, and compound starch grains have a reddish brown color. Small spheroidal starch grains, coexisting with fixed oil and with aleuron grains in parenchymatous cells, have a blue-purple color.

Purity Foreign matter—Under a microscope, Powdered Coix Seed reveals no fragments of tissue having silicified cell wall, no stone cells, no fragments of other thick-walled and lignified cells, no fragments of reticulate, scalariform and pitted vessels, no fragments of fibers and hairs, and no large starch grains, more than 10 μm in diameter, appearing blue-purple upon addition of iodine TS.

Loss on drying Not more than 14.0% (6 hours).

Total ash Not more than 3.0%.

Containers and storage Containers—Tight containers.

Condurango

Condurango Cortex

コンズランゴ

Condurango is the bark of the trunk of *Marsdenia cundurango* Reichenbach fil. (*Asclepiadaceae*).

Description Tubular or semi-tubular pieces of bark, 0.1 –