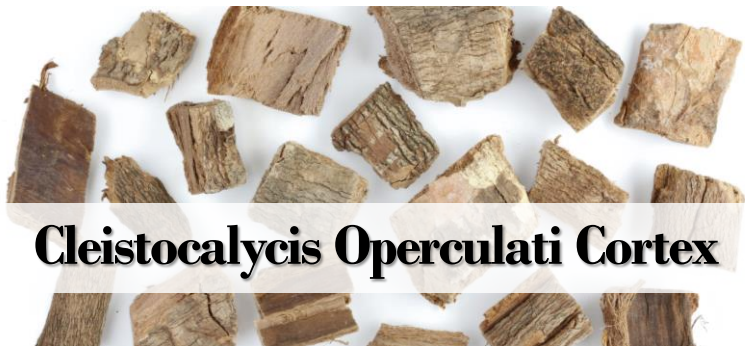


Macroscopic and Microscopic Identification of Cortex type of Decoction Pieces Commonly Found in Hong Kong



Cleistocalyx Operculati Cortex

Source The dried bark of *Cleistocalyx operculatus* (Roxb.) Merr. et Perry in the family Myrtaceae

Property and Flavour Cool; bitter and pungent

Meridian Affinity Spleen and stomach meridians

Actions To clear heat and remove toxins, dry dampness and kill parasitic worms, relieve itch

Production Area No information

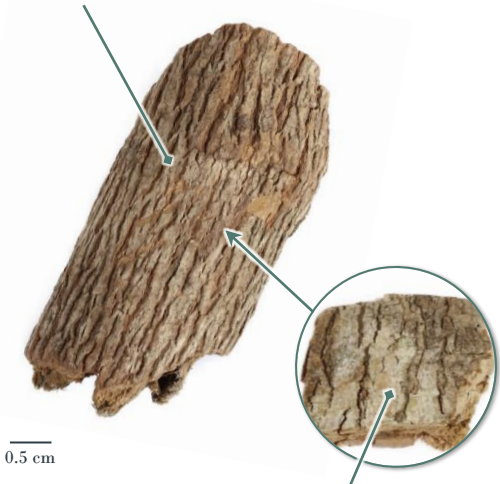




Macroscopic Identification Features

Shape Flat slices, some are quilled

Cork on the outer surface is greyish-brown or light brown, rough and usually has cracks. No lenticels



Occasionally covered with patches of lichen



Cleistocalycis Operculati Cortex

Inner surface is brown or deep brown
and has fine and straight striations

Inner layer is easily exfoliated. The surface
appears greyish-white or yellowish-brown and
usually fibrous after the inner layer is exfoliated

Cut surface is reddish-
brown, yellowish-brown
or light yellowish-brown

0.5 cm

Some are split in a laminated way



Cleistocalycis Operculati Cortex

Texture Tough, large amount of dust wafts when broken

Fracture Outer layer is granular, inner layer is fibrous



0.5 cm

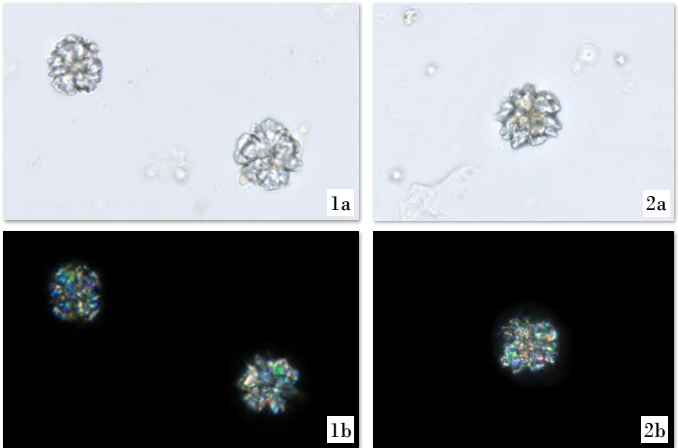
Odour Slight



Features of Simplified Powder Microscopic Identification

- Crystal -

Cluster of calcium oxalate



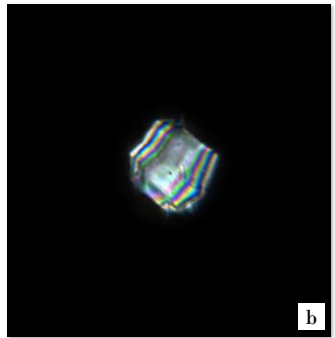
50 μm

Numerous, mostly scattered, angle is usually short and obtuse (1), while sometimes acute (2); polychromatic under polarized light microscope

a. features under bright field; b. features under polarized light



Prism of calcium oxalate



50 μ m

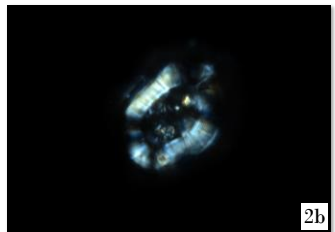
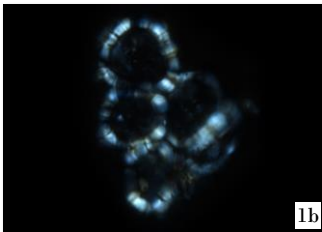
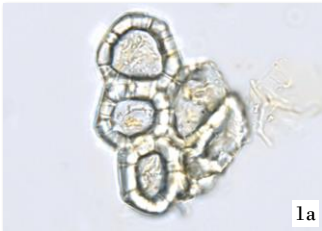
Mostly scattered, appears sub-rectangular, sub-double conical or polygonal; polychromatic under polarized light microscope

a. features under bright field; b. features under polarized light



- Sclerenchyma -

Stone cell



50 μ m

In groups or singly scattered, appears sub-rounded, sub-rectangular, sub-polygonal or irregular, wall is slightly thick (1) or thick (2), with pit canals and pits; polychromatic or bright white under polarized light microscope

a. features under bright field; b. features under polarized light

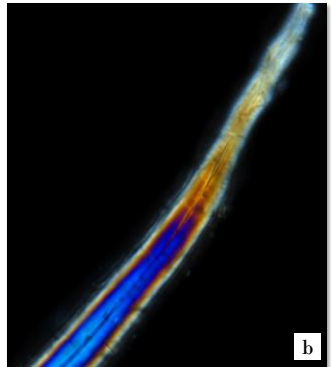
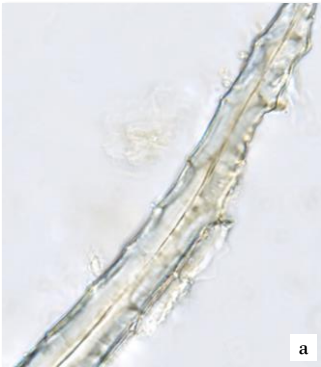




Additional Features of Powder Microscopic Identification

- Sclerenchyma -

Fibre



50 μ m

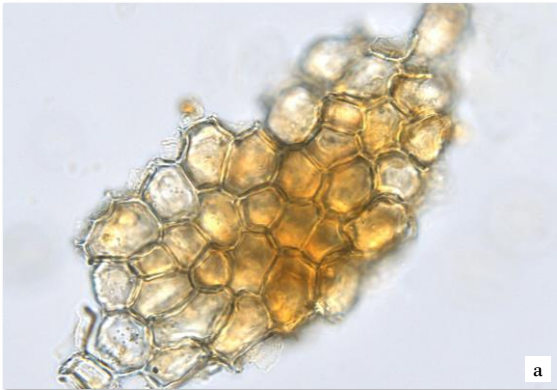
In bundles or singly scattered, wall is thick or extremely thick, narrow lumen; bright white or polychromatic under polarized light microscope

a. features under bright field; b. features under polarized light



- Protective tissue -

Cork cell



50 μ m

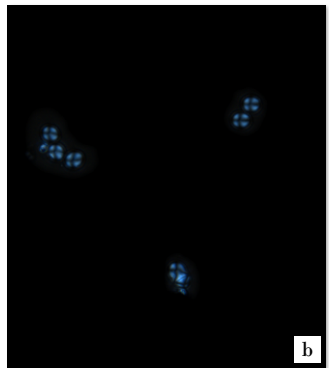
Yellowish-brown or brown, appears polygonal and sub-polygonal in surface view

a. features under bright field; b. features under polarized light



- Starch -

Starch granule



50 μ m

Mainly is simple granule, appears sub-rounded, compound granule is barely found, consists of 2-3 units; black and cruciate-shaped under polarized light microscope

a. features under bright field; b. features under polarized light





Key Identification Features

- Macroscopic features -

- ◇ Cork on the outer surface is rough and usually has cracks. No lenticels
- ◇ Outer layer of fracture is granular, while inner layer is fibrous
- ◇ Inner layer of the inner surface is easily exfoliated

- Powder microscopic features -

- ◇ Cluster of calcium oxalate is numerous and usually has short and obtuse angles
- ◇ Prism of calcium oxalate appears sub-rectangular, sub-double conical or polygonal
- ◇ Stone cell appears sub-rounded, sub-rectangular, sub-polygonal or irregular and has slightly thick or thick wall

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