

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



# Cortex Periplocae\*

**Source** The dried root bark of *Periploca sepium* Bge. in the family Asclepiadaceae

**Property and Flavour** Warm; pungent and bitter; toxic<sup>#</sup>

**Meridian Affinity** Liver, kidney and heart meridians

**Actions** To induce urination and resolve oedema, eliminate wind and resolve dampness, strengthen the sinews and bones

**Production Area** Mainly produced in Shanxi, Hebei, Henan, Shandong, etc.

Note:

\* Its name in Chinese Pharmacopoeia (2020 Edition) is “Periplocae Cortex”.

<sup>#</sup> According to Chinese Pharmacopoeia (2020 Edition), overdose of Cortex Periplocae shall be avoided.



衛生署

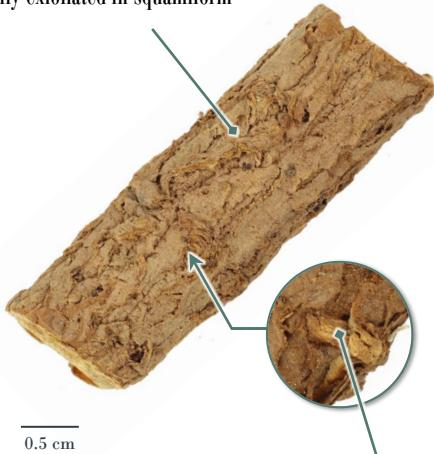
Department of Health



## Macroscopic Identification Features

**Shape** Irregularly-quilled, some in flat slices

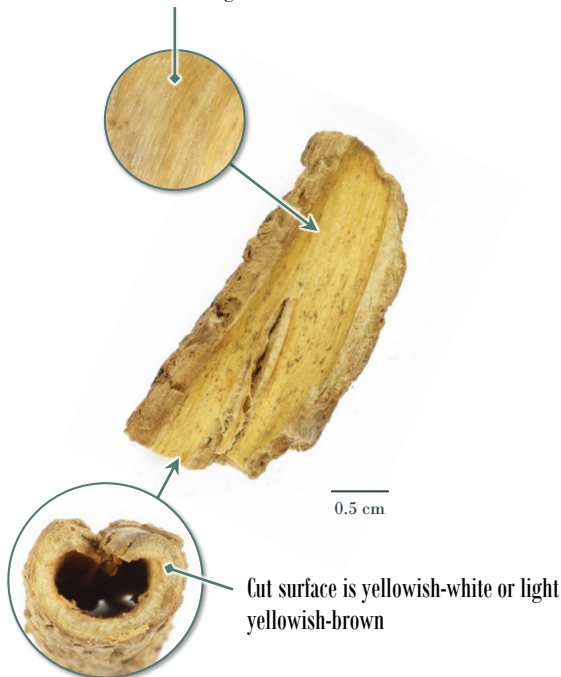
Outer surface is greyish-brown or yellowish-brown and has irregular cracks.  
Cork usually exfoliated in squamiform



Some with linear lenticel visible



Inner surface is light yellow or light yellowish-brown and has fine straight striations



**Texture** Light, fragile, easily broken

**Fracture** Slightly uneven



0.2 cm

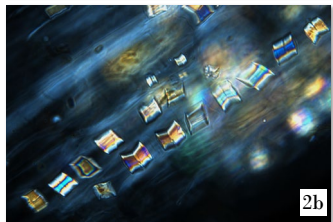
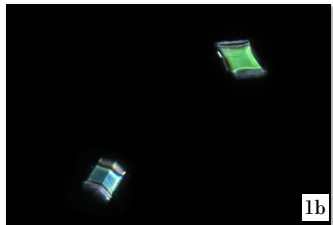
**Odour** With characteristic aroma



# Features of Easy Powder Microscopic Identification

## - Crystal -

### Prism of calcium oxalate



50  $\mu$ m

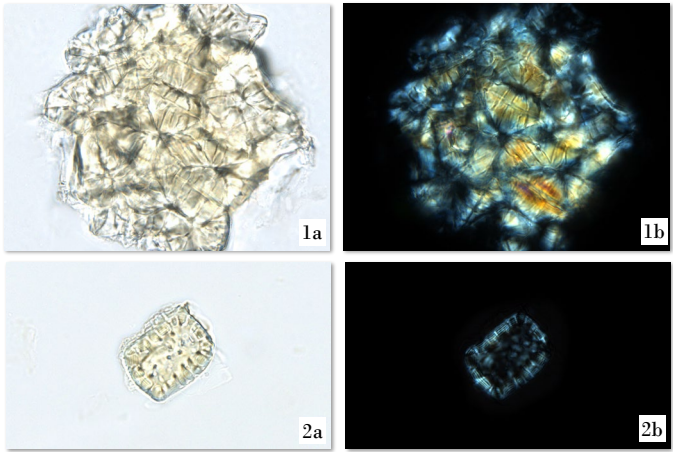
Scattered (1) or present in parenchymatous cell (2), appears rhombic, square, rectangular or arrowhead-shaped; polychromatic under polarized light microscope

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



## - Sclerenchyma -

### Stone cell



50 μm

Light yellow, mostly several in groups, sub-square, sub-polygonal or irregular, wall is extremely thick (1) or thick (2), with distinct pits and pit canals; bright white, orange-yellow or polychromatic under polarized light microscope

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



# Additional Features of Powder Microscopic Identification

- Secretory tissue -

## Laticifer



50  $\mu$ m

Distributed in parenchyma, contains colourless oily or granular secretion

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



- Protective tissue -

Cork cell



50  $\mu$ m

Light yellowish-brown or yellowish-brown, appears sub-polygonal or sub-square in surface view

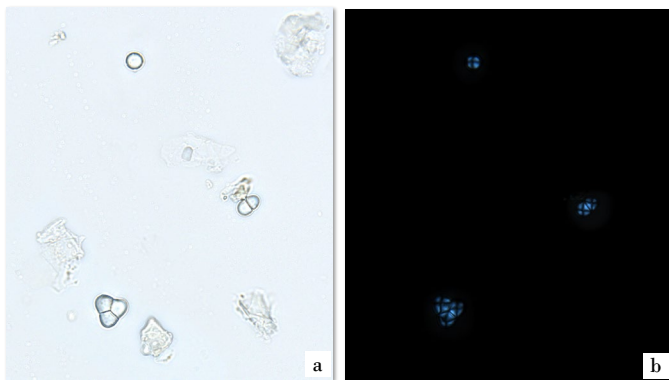
*a. features under bright field; b. features under polarized light*





## - Starch -

### Starch granule



50 μm

Sub-rounded simple granule, compound granule consists of 2-7 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 usually exfoliated in squamiform, in which some have lenticels visible
- ◇ Fracture is slightly uneven

### - Powder Microscopic features -

- ◇ Prism of calcium oxalate appears rhombic, square, rectangular or arrowhead-shaped
- ◇ Stone cell is sub-square, sub-polygonal or irregular and has distinct pits and pit canals

For more information, please refer to [website of the Hong Kong Chinese Materia Medica Standards](#):

Periplocae Cortex — HKCMMS (Vol 6)

Government Chinese Medicines Testing Institute

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