

Each mL of 1 mol/L sodium hydroxide VS  
= 60.05 mg of C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>

**Containers and storage** Containers—Tight containers.

## Achyranthes Root

### *Achyranthis Radix*

ゴシツ

Achyranthes Root is the root of *Achyranthes fauriei* Leveillé et Vaniot or *Achyranthes bidentata* Blume (*Amaranthaceae*).

**Description** Main root or main root with some lateral roots, with or without short remains of rhizome at the crown; main root, long cylindrical and sometimes somewhat tortuous, 15–90 cm in length, 0.3–0.7 cm in diameter; externally grayish yellow to yellow-brown, with numerous longitudinal wrinkles, and with scattering scars of lateral roots. Fractured surface is flat; grayish white to light brown on the circumference, and with yellowish white xylem in the center. Hard and brittle, or flexible. Odor, slight; taste, slightly sweet, and mucilaginous.

Under a microscope, a transverse section reveals a rather distinct cambium separating the cortex from the xylem; small protoxylem located at the center of the xylem, and surrounded by numerous vascular bundles arranged on several concentric circles; parenchyma cells containing sand crystals of calcium oxalate; starch grains absent.

**Identification** Shake vigorously 0.5 g of pulverized Achyranthes Root with 10 mL of water: a lasting fine foam is produced.

**Purity** (1) Stem—The amount of stems contained in Achyranthes Root does not exceed 5.0%.

(2) Foreign matter—The amount of foreign matter other than stems contained in Achyranthes Root does not exceed 1.0%.

**Loss on drying** Not more than 17.0% (6 hours).

**Total ash** Not more than 10.0%.

**Acid-insoluble ash** Not more than 1.5%.

## Acrinol and Zinc Oxide Oil

アクリノール・チンク油

### Method of preparation

Acrinol, very finely powdered	10 g
Zinc Oxide Oil	990 g
To make 1000 g	

Prepare by mixing the above ingredients.

**Description** Acrinol and Zinc Oxide Oil is a yellowish white, slimy substance. Separation of a part of its ingredients occurs on prolonged standing.

**Identification** (1) Shake well 1 g of Acrinol and Zinc Oxide Oil with 10 mL of diethyl ether, 2 mL of acetic acid (100) and 10 mL of water, and separate the water layer. Shake the layer with 5 mL of hydrochloric acid and 2 to 3 drops of sodium nitrite TS, and allow to stand: a dark red color is produced (acrinol).

(2) Place 1 g of Acrinol and Zinc Oxide Oil in a crucible, melt by warming, heat, gradually raising the temperature until the mass is thoroughly charred, and then ignite strongly: a yellow color is produced, and disappears on cooling. To the residue add 10 mL of water and 5 mL of dilute hydrochloric acid, filter after thorough shaking, and to the filtrate add 2 to 3 drops of potassium hexacyanoferrate (II) TS: a white precipitate is formed (zinc oxide).

(3) Shake well 0.2 g of Acrinol and Zinc Oxide Oil with 20 mL of ethanol (95) and 1 mL of acetic acid (100), centrifuge, filter, and use the filtrate as the sample solution. Separately, dissolve 5 mg of acrinol in 50 mL of ethanol (95) and 2.5 mL of acetic acid (100), and use this solution as the standard solution. Perform the test with these solutions as directed under the Thin-layer Chromatography. Spot 5 μL each of the sample solution and the standard solution on a plate of silica gel for thin-layer chromatography. Develop the plate with a mixture of 2-propanol and acetic acid (100) (9:1) to a distance of about 10 cm, and air-dry the plate. Examine under ultraviolet light (main wavelength: 365 nm): the spots from the sample solution and the standard solution exhibit a blue fluorescence and show the same R<sub>f</sub> value.

**Containers and storage** Containers—Tight containers.

Storage—Light-resistant.

## Compound Acrinol and Zinc Oxide Oil

複方アクリノール・チンク油

### Method of preparation

Acrinol, very finely powdered	10 g
Zinc Oxide Oil	650 g
Ethyl Aminobenzoate, finely powdered	50 g
White Beeswax	20 g
Hydrophilic Petrolatum	270 g

To make 1000 g

Prepare by mixing the above ingredients.

**Description** Compound Acrinol and Zinc Oxide Oil is light yellow to yellow in color.

**Identification** (1) Shake well 1 g of Compound Acrinol and Zinc Oxide Oil with 10 mL of diethyl ether, 2 mL of acetic acid (100) and 10 mL of water, and separate the water layer. Shake the layer with 5 mL of hydrochloric acid and 2 to 3 drops of sodium nitrite TS, and allow to stand: a dark red color is produced (acrinol).

(2) Place 1 g of Compound Acrinol and Zinc Oxide Oil in a crucible, melt by warming, heat, gradually raising the temperature until the mass is thoroughly charred, and then ignite strongly: a yellow color is produced, and disappears on cooling. To the residue add 10 mL of water and 5 mL of di-