

and harmless diluents, binders, lubricants, coloring, and coating substances. Each tablet contains minocycline hydrochloride equivalent to 100 milligrams of minocycline. Its potency is satisfactory if it contains not less than 90 percent and not more than 115 percent of the number of milligrams of minocycline that it is represented to contain. Its moisture content is not more than 12 percent. The tablets disintegrate within 30 minutes. The minocycline hydrochloride used conforms to the standards prescribed by § 446.60(a)(1).

(2) *Labeling.* It shall be labeled in accordance with the requirements of § 432.5 of this chapter.

(3) *Requests for certification; samples.* In addition to complying with the requirements of § 431.1 of this chapter, each such request shall contain:

(i) Results of tests and assays on:

(a) The minocycline hydrochloride used in making the batch for potency, moisture, pH, epi-minocycline content, identity, crystallinity, residue on ignition, and absorptivity.

(b) The batch for potency, moisture, and disintegration time.

(ii) Samples required:

(a) The minocycline hydrochloride used in making the batch: 10 packages, each containing approximately 300 milligrams.

(b) The batch: A minimum of 36 tablets.

(b) *Tests and methods of assay*—(1) *Potency.* Proceed as directed in § 446.60(b)(1) of this part, except prepare the sample solution and calculate the minocycline potency as follows:

(i) *Sample solution.* Grind a representative number of tablets in a mortar and pestle. Wash the ground tablets into a volumetric flask containing mobile phase (described in § 446.60(b)(1)(i)(c) of this part) and shake to dissolve. Dilute with mobile phase to give a stock solution of convenient concentration. Filter the stock solution. Further dilute using mobile phase to obtain a solution containing 500 micrograms of minocycline activity per milliliter (estimated). Use this solution within 3 hours of preparation.

(ii) *Calculations.* Calculate the minocycline content as follows:

$$\text{Milligrams of minocycline per milliliter} = \frac{A_u \times P_s \times d}{A_s \times 1,000 \times 5}$$

where:

A_u = Area of the minocycline peak in the chromatogram of the sample (at a retention time equal to that observed for the standard);

A_s = Area of the minocycline peak in the chromatogram of the minocycline working standard;

P_s = Minocycline activity in the minocycline working standard solution in micrograms per milliliter;

d = Dilution factor of the sample; and

n = Number of tablets in the sample assayed.

(2) *Moisture.* Proceed as directed in § 436.201 of this chapter.

(3) *Disintegration time.* Proceed as directed in § 436.212 of this chapter, using the procedure described in paragraph (e)(1) of that section.

[39 FR 19076, May 30, 1974, as amended at 43 FR 11163, Mar. 17, 1978; 44 FR 22058, Apr. 13, 1979; 50 FR 19920, May 13, 1985; 53 FR 32609, Aug. 26, 1988]

§ 446.160b Minocycline hydrochloride capsules.

(a) *Requirements for certification*—(1) *Standards of identity, strength, quality, and purity.* Minocycline hydrochloride capsules are composed of minocycline hydrochloride and one or more suitable and harmless lubricants and diluents enclosed in a gelatin capsule. Each capsule contains minocycline hydrochloride equivalent to 50 or 100 milligrams of minocycline. Its potency is satisfactory if it is not less than 90 percent and not more than 115 percent of the number of milligrams of minocycline that it is represented to contain. Its moisture content is not more than 12 percent. The minocycline hydrochloride used conforms to the standards prescribed by § 446.60(a)(1).

(2) *Labeling.* It shall be labeled in accordance with the requirements of § 432.5 of this chapter.

(3) *Requests for certification; samples.* In addition to complying with the requirements of § 431.1 of this chapter, each such request shall contain:

(i) Results of tests and assays on:

(a) The minocycline hydrochloride used in making the batch for potency, moisture, pH, epi-minocycline content,

identity, crystallinity, residue on ignition, and absorptivity.

(b) The batch for potency and moisture.

(ii) Samples required:

(a) The minocycline hydrochloride used in making the batch: 10 packages, each containing approximately 300 milligrams.

(b) The batch: A minimum of 30 capsules.

(b) *Tests and methods of assay*—(1) *Potency*. Proceed as directed in § 446.60(b)(1) of this part, except prepare the sample solution and calculate the minocycline potency as follows:

(i) *Sample solution*. Open a representative number of capsules and empty the contents into a volumetric flask containing mobile phase (described in § 446.60(b)(1)(i)(c) of this part) and shake to dissolve. Dilute with mobile phase to give a stock solution of convenient concentration. Filter the stock solution. Remove an aliquot of the stock solution and further dilute with mobile phase to obtain a solution containing 500 micrograms of minocycline activity per milliliter (estimated). Use this solution within 3 hours of preparation.

(ii) *Calculations*. Calculate the minocycline content as follows:

$$\begin{array}{l} \text{Milligrams of} \\ \text{minocycline} \\ \text{per capsule} \end{array} = \frac{A_u \times P_s \times d}{A_s \times 1,000 \times n}$$

where:

A_u = Area of the minocycline peak in the chromatogram of the sample (at a retention time equal to that observed for the standard);

A_s = Area of the minocycline peak in the chromatogram of the minocycline working standard;

P_s = Minocycline activity in the minocycline working standard solution in micrograms per milliliter;

d = Dilution factor of the sample; and

n = Number of capsules in the sample assayed.

(2) *Moisture*. Proceed as directed in § 436.201 of this chapter.

[39 FR 19076, May 30, 1974, as amended at 43 FR 11163, Mar. 17, 1978; 44 FR 22058, Apr. 13, 1979; 50 FR 19920, May 13, 1985; 53 FR 32609, Aug. 26, 1988]

§ 446.160c Minocycline hydrochloride oral suspension.

(a) *Requirements for certification*—(1) *Standards of identity, strength, quality, and purity*. Minocycline hydrochloride oral suspension is minocycline hydrochloride with one or more suitable flavorings, wetting agents, preservatives, and diluents in an aqueous vehicle. Each milliliter contains minocycline hydrochloride equivalent to 10 milligrams of minocycline. Its potency is satisfactory if it is not less than 90 percent and not more than 130 percent of the number of milligrams of minocycline that it is represented to contain. Its pH is not less than 7.0 and not more than 9.0. The minocycline hydrochloride used conforms to the standards prescribed by § 446.60(a)(1).

(2) *Labeling*. It shall be labeled in accordance with the requirements of § 432.5 of this subchapter.

(3) *Requests for certification; samples*. In addition to complying with the requirements of § 431.1 of this chapter, each such request shall contain:

(i) Results of tests and assays on:

(a) The minocycline hydrochloride used in making the batch for potency, moisture, pH, epi-minocycline content, identity, crystallinity, residue on ignition, and absorptivity.

(b) The batch for potency and pH.

(ii) Samples required:

(a) The minocycline hydrochloride used in making the batch: 10 packages, each containing approximately 300 milligrams.

(b) The batch: A minimum of five immediate containers.

(b) *Tests and methods of assay*—(1) *Potency*. Proceed as directed in § 446.60(b)(1) of this part, except prepare the sample solution and calculate the minocycline potency as follows:

(i) *Sample solution*. Transfer an accurately measured 5-milliliter portion of the well-shaken suspension to a 100-milliliter volumetric flask. Dilute to mark with mobile phase (described in § 446.60(b)(1)(i)(c) of this part) and mix well. Filter this solution and use within 3 hours of its preparation.

(ii) *Calculations*. Calculate the minocycline content as follows: