

(a) The bacampicillin used in making the batch for potency, moisture, pH, and identity.

(b) The batch for potency, loss on drying, pH, and identity.

(ii) Samples required:

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

(b) The batch: A minimum of 6 immediate containers.

(b) *Tests and methods of assay*—(1) *Potency*. Proceed as directed in § 436.204 of this chapter, except:

(i) Use the ampicillin working standard as the standard of comparison;

(ii) Use 4.0 milliliters of sample solution in lieu of the 2.0 milliliters specified in paragraph (c)(1) of that section; and

(iii) Calculate the potency of the sample as follows:

$$\text{Milligrams of ampicillin per dose} = \frac{V_u \times F \times d}{n \times 4,000}$$

Prepare the sample as follows: Reconstitute the drug as directed in the labeling. Place an accurately measured portion equivalent to one dose into a 250-milliliter volumetric flask. Add 200 milliliters of a solvent mixture of 95 percent ethanol and 0.1M phosphoric acid (8:2). Shake for 30 minutes on a wrist action shaker and dilute to volume with the solvent mixture. Centrifuge a portion of the sample solution for 10 minutes at 6,000 rpm. Use the clear supernatant without further dilution.

(2) *Loss on drying*. Proceed as directed in § 436.200(b) of this chapter.

(3) *pH*. Proceed as directed in § 436.202 of this chapter, using the drug reconstituted as directed in the labeling.

(4) *Identity*. Proceed as directed in § 436.330 of this chapter, except prepare the sample as follows: Reconstitute as directed in the labeling. Place 8.0 milliliters of the sample into a 100-milliliter volumetric flask, add 70 milliliters of 95 percent ethyl alcohol and shake for 30 minutes. Dilute to volume with 95 percent ethyl alcohol.

[47 FR 23711, June 1, 1982, as amended at 50 FR 19919, May 13, 1985]

#### § 440.111 Carbenicillin indanyl sodium tablets.

(a) *Requirements for certification*—(1) *Standards of identity, strength, quality, and purity*. Carbenicillin indanyl sodium tablets are composed of carbenicillin indanyl sodium and one or more suitable and harmless diluents, binders, lubricants, colorings, and coating substances. Each tablet contains carbenicillin indanyl sodium equivalent to 382 milligrams of carbenicillin. Its potency is satisfactory if it contains not less than 90 percent and not more than 120 percent of the number of milligrams of carbenicillin that it is represented to contain. Its moisture content is not more than 2.0 percent. It gives a positive identity test for carbenicillin indanyl sodium. The tablets shall disintegrate within 1 hour. The carbenicillin indanyl sodium used conforms to the standards prescribed by § 440.11(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 carbenicillin indanyl sodium used in making the batch for potency, moisture, pH, and identity.

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

(ii) Samples required:

(a) The carbenicillin indanyl sodium used in making the batch: Five packages, each containing approximately 1 gram and one package containing approximately 2.5 grams.

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

(b) *Tests and methods of assay*—(1) *Potency*. Proceed as directed in § 436.300 of this chapter, except:

(i) *Preparation of the sample*. Accurately weigh 20 tablets and determine the average tablet weight. Using a mortar and pestle, grind the tablets to a fine powder. Accurately weigh a portion of the powder approximately equivalent to the weight of one tablet and transfer it into a 100-milliliter volumetric flask. Add approximately 70 milliliters of distilled water and shake

the flask for 5 minutes. Dilute to volume and mix well. Transfer a 5-milliliter aliquot of the stock solution to a 50-milliliter glass-stoppered centrifuge tube. (The solution will be slightly turbid.) Add 15 milliliters of phosphate-citrate buffer and 20 milliliters of 4-methyl-2-pentanone to the tube. Stopper the tube and shake it for 10 seconds. Centrifuge at 2,000 revolutions per minute to separate the phases. Remove about 15 milliliters of the upper phase and proceed as directed in § 436.300(e) of this chapter.

(ii) *Calculations.* Calculate the carbenicillin content (potency) of the tablets as follows:

$$\text{Milligrams of carbenicillin per tablet} = \frac{(\text{Degrees of rotation of sample solution} \times \text{weight of working standard} \times \text{average tablet weight} \times 100 \times \text{micrograms of carbenicillin in each milligram of the working standard})}{(\text{Degrees of rotation of working standard} \times \text{weight of sample} \times 25 \times 1,000)}$$

where:

100 and 25=The volume of the sample and working standard solutions, respectively;

1,000=Factor to correct micrograms to milligrams.

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

(3) *Identity.* Proceed as directed in § 436.301 of this chapter, preparing the sample as follows: Using a mortar and pestle, grind a representative number of tablets into a fine powder. Dissolve a weighed amount of this powder in sufficient extraction solvent (described in § 436.301(b)(1) of this chapter) to give 10 milligrams of carbenicillin per milliliter. Shake the mixture for 5 minutes and promptly dilute an aliquot in extraction solvent to obtain a final concentration of 1 milligram carbenicillin per milliliter.

(4) *Disintegration time.* Proceed as directed in § 436.212 of this chapter, using the procedure described in paragraph (e)(2) of that section.

[39 FR 18976, May 30, 1974, as amended at 50 FR 19919, May 13, 1985]

**§ 440.115 Cloxacillin sodium monohydrate oral dosage forms.**

**§ 440.115a Cloxacillin sodium monohydrate capsules.**

(a) *Requirements for certification—(1) Standards of identity, strength, quality, and purity.* Cloxacillin sodium monohydrate capsules are composed of cloxacillin sodium and one or more suitable and harmless diluents and lubricants. Each capsule contains cloxacillin sodium monohydrate equivalent to 125 milligrams, 250 milligrams, or 500 milligrams of cloxacillin. Its potency is satisfactory if it is not less than 90 percent and not more than 120 percent of the number of milligrams of cloxacillin that it is represented to contain. Its moisture content is not more than 5 percent. The cloxacillin sodium monohydrate used conforms to the standards prescribed by § 440.15(a)(1).

(2) *Labeling.* In addition to the labeling requirements of § 432.5 of this chapter, this drug shall be labeled "cloxacillin sodium capsules".

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

(i) Results of tests and assays on:

(a) The cloxacillin sodium monohydrate used in making the batch for potency, moisture, pH, cloxacillin content, identity, and crystallinity.

(b) The batch for potency and moisture.

(ii) Samples required:

(a) The cloxacillin sodium monohydrate 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—(i) Sample preparation.* Place a representative number of capsules into a high-speed glass blender jar containing sufficient 1 percent potassium phosphate buffer, pH 6.0 (solution 1), to give a stock solution of convenient concentration. Blend for 3 to 5 minutes.