

$$\text{Milligrams of cefadroxil per capsule} = \frac{A_u \times P_s \times d}{A_s \times 1,000 \times n}$$

where:

A_u = Absorbance of sample solution;

A_s = Absorbance of working standard solution;

P_s = Potency of working standard solution in micrograms per milliliter;

d = Dilution factor of the sample;

n = Number of capsules in the sample assayed.

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

(3) *Dissolution*. Proceed as directed in § 436.215 of this chapter. The quantity Q (the amount of cefadroxil dissolved) is 75 percent within 45 minutes.

[59 FR 8857, Feb. 24, 1994]

§ 442.107b Cefadroxil hemihydrate tablets.

(a) *Requirements for certification—(1) Standards of identity, strength, quality, and purity*. Cefadroxil hemihydrate tablets are composed of cefadroxil hemihydrate and one or more suitable and harmless binders and lubricants, with or without coloring and film-coating substances. Each tablet contains cefadroxil hemihydrate equivalent to 1,000 milligrams of cefadroxil. Its cefadroxil content is satisfactory if it is not less than 90 percent and not more than 120 percent of the number of milligrams of cefadroxil that it is represented to contain. Its moisture content is not more than 8.0 percent. It passes the dissolution test. The cefadroxil hemihydrate used conforms to the standards prescribed in § 442.7(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 cefadroxil hemihydrate used in making the batch for potency, moisture, pH, absorptivity, identity, and crystallinity.

(B) The batch for content, moisture, and dissolution.

(ii) Samples, if required by the Director, Center for Drug Evaluation and Research:

(A) The cefadroxil hemihydrate used in making the batch: 10 packages, each containing approximately 500 milligrams.

(B) The batch: A minimum of 100 tablets.

(b) *Tests and methods of assay—(1) Cefadroxil content*. Use either of the following methods; however, the results obtained from the hydroxylamine colorimetric assay shall be conclusive.

(i) *Microbiological agar diffusion assay*. Proceed as directed in § 436.105 of this chapter, preparing the sample for assay as follows: Place a representative number of tablets 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. Remove an aliquot and further dilute with solution 1 to the reference concentration of 20 micrograms of cefadroxil per milliliter (estimated).

(ii) *Hydroxylamine colorimetric assay for cefadroxil*. Proceed as directed in § 442.40(b)(1)(ii), except prepare the working standard and sample solutions and calculate the potency of the sample as follows:

(A) *Preparation of working standard solutions*. Dissolve and dilute an accurately weighed portion of the cefadroxil working standard in sufficient distilled water to obtain a stock solution of convenient concentration. Further dilute an aliquot of this solution with distilled water to a concentration of 1 milligram of cefadroxil per milliliter.

(B) *Preparation of sample solutions*. Blend a representative number of tablets in a high-speed glass blender jar with sufficient distilled water to obtain a stock solution of convenient concentration. Further dilute an aliquot of this solution with distilled water to a concentration of 1 milligram of cefadroxil per milliliter (estimated).

(C) *Calculations*. Calculate the cefadroxil content as follows:

$$\text{Milligrams of cefadroxil per tablet} = \frac{A_u \times P_s \times d}{A_s \times 1,000 \times n}$$

where:

A_u = Absorbance of sample solution;

A_s = Absorbance of working standard solution;

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P_s = Potency of 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) *Dissolution.* Proceed as directed in § 436.215 of this chapter. The quantity Q (the amount of cefadroxil dissolved) is 75 percent within 30 minutes.

[59 FR 8857, Feb. 24, 1994]

§ 442.115 Cefixime trihydrate oral dosage forms.

§ 442.115a Cefixime trihydrate for oral suspension.

(a) *Requirements for certification—(1) Standards of identity, strength, quality, and purity.* Cefixime trihydrate for oral suspension is cefixime trihydrate with one or more suitable and harmless preservatives, suspending agents, diluents, and flavorings. When reconstituted as directed in the labeling, each milliliter contains the equivalent of 20 milligrams of cefixime. Its cefixime trihydrate potency is satisfactory if it is not less than 90 percent and not more than 120 percent of the number of milligrams of cefixime that it is represented to contain. Its moisture content is not more than 2.0 percent. When reconstituted as described in labeling, the pH of the suspension is not less than 2.5 and not more than 4.5. It passes the identity test for the presence of the cefixime moiety. The cefixime trihydrate used conforms to the standards prescribed by § 442.15(a)(1) of this part.

(2) *Labeling.* It shall be labeled in accordance with the requirements of § 436.5 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 cefixime trihydrate used in making the batch, for potency, moisture, pH, crystallinity, specific rotation, and identity.

(B) The batch, for content, moisture, pH, and identity.

(ii) Samples, if required by the Director, Center for Drug Evaluation and Research.

(A) The cefixime used in making the batch: 10 packages, each containing approximately 500 milligrams.

(B) The batch: A minimum of 10 immediate containers.

(b) *Tests and methods of assay—(1) Content.* Proceed as directed in § 442.15(b)(1) of this part, preparing the sample solution and calculating the cefixime content as follows:

(i) *Preparation of the sample solution.* Reconstitute as directed in the labeling. Transfer a 5.0-milliliter portion of the suspension into an appropriately sized volumetric flask and quantitatively dilute stepwise with 0.1M phosphate buffer, pH 7.0, to obtain a concentration of 0.2 milligram of cefixime activity per milliliter (estimated).

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

$$\text{Milligrams of cefixime per 5 milliliters of sample} = \frac{A_u \times P_s \times d}{A_s \times 1,000}$$

where:

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

A_s = Area of the cefixime peak in the chromatogram of the cefixime working standard.

P_s = Cefixime activity in the cefixime working standard solution in micrograms per milliliter; and

d = Dilution factor of the sample.

(2) *Moisture.* Proceed as directed in § 436.201 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.* The high performance liquid chromatogram of the sample determined as directed in paragraph (b)(1) of this section, compares qualitatively to that of the cefixime working standard.

[53 FR 24259, June 28, 1988]

§ 442.115b Cefixime trihydrate tablets.

(a) *Requirements for certification—(1) Standards of identity, strength, quality, and purity.* Cefixime trihydrate tablets are composed of cefixime trihydrate and one or more suitable and harmless diluents, binders, lubricants, colorings, and coating substances. Each tablet