

record the chromatogram, and measure the response for the major peak. Calculate the quantity of  $C_{15}H_{11}ClN_2O_2$  dissolved in comparison with a similarly chromatographed Standard solution having a known concentration of USP Oxazepam RS in 0.1 N hydrochloric acid. [NOTE—A volume of alcohol not exceeding 10% of the final total volume of the Standard solution may be used to dissolve the Reference Standard.]

**Tolerances**—Not less than 80% (Q) of the labeled amount of  $C_{15}H_{11}ClN_2O_2$  is dissolved in 60 minutes.

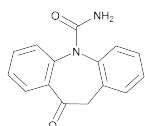
**Uniformity of dosage units** (905): meet the requirements.

**Assay**—Weigh and finely powder not less than 20 Tablets. Transfer an accurately weighed portion of the powder, equivalent to about 50 mg of oxazepam, to a medium-porosity, sintered-glass funnel that is fitted into a small suction flask. Add 25 mL of alcohol, mix with the aid of a stirring rod, and after about 5 minutes apply gentle suction to remove the extract. Repeat the extraction with four additional 25-mL portions of alcohol, transfer the extracts to a 250-mL volumetric flask, dilute with alcohol to volume, and mix. Transfer 2.0 mL of this solution to a 100-mL volumetric flask, dilute with alcohol to volume, and mix. Concomitantly determine the absorbances of this solution and of a Standard solution of USP Oxazepam RS in the same medium having a known concentration of about 4 µg per mL in 1-cm cells at the wavelength of maximum absorbance at about 229 nm, with a suitable spectrophotometer, using alcohol as the blank. Calculate the quantity, in mg, of  $C_{15}H_{11}ClN_2O_2$  in the portion of Tablets taken by the formula:

$$12.5C(A_U / A_S)$$

in which C is the concentration, in µg per mL, of USP Oxazepam RS in the Standard solution, and  $A_U$  and  $A_S$  are the absorbances of the solution from the Tablets and the Standard solution, respectively.

## Oxcarbazepine



$C_{15}H_{12}N_2O_2$  252.27  
5*H*-Dibenz[*b,f*]azepine-5-carboxamide, 10,11-dihydro-10-oxo-;  
10,11-Dihydro-10-oxo-5*H*-dibenz[*b,f*]azepine-5-carboxamide  
[28721-07-5].

### DEFINITION

Oxcarbazepine contains NLT 98.0% and NMT 102.0% of  $C_{15}H_{12}N_2O_2$ , calculated on the anhydrous basis.

### IDENTIFICATION

- A. INFRARED ABSORPTION** (197K) [NOTE—If the spectrum obtained shows differences, dissolve the substance to be examined in chloroform, and evaporate to dryness. Compare the spectrum of the residue to that of a similarly prepared USP Oxcarbazepine RS.]
- B.** The retention time of the major peak of the *Sample solution* corresponds to that of the *Standard solution*, as obtained in the *Assay*.

### ASSAY

#### PROCEDURE

**Buffer:** 6.8 g/L of monobasic potassium phosphate in water. For each L prepared add 2 mL of triethylamine and mix. Adjust with phosphoric acid to a pH of  $6.0 \pm 0.1$ .

**Mobile phase:** Methanol, acetonitrile, and *Buffer* (11:8:31)

**Standard solution:** 0.1 mg/mL of USP Oxcarbazepine RS in *Mobile phase*

**Sample solution:** 0.1 mg/mL of Oxcarbazepine in *Mobile phase*

#### Chromatographic system

(See *Chromatography* (621), *System Suitability*.)

**Mode:** LC

**Detector:** UV 215 nm

**Column:** 4.6-mm × 25-cm; 5-µm packing L1

**Column temperature:** 50°

**Flow rate:** 1.5 mL/min

**Injection size:** 10 µL

#### System suitability

**Sample:** *Standard solution*

**Suitability requirements:**

**Relative standard deviation:** NMT 2.0%

#### Analysis

**Samples:** *Standard solution* and *Sample solution*

Calculate the percentage of  $C_{15}H_{12}N_2O_2$  in the portion of Oxcarbazepine taken:

$$\text{Result} = (r_U/r_S) \times (C_S/C_U) \times 100$$

$r_U$  = peak response from the *Sample solution*

$r_S$  = peak response from the *Standard solution*

$C_S$  = concentration of USP Oxcarbazepine RS in the *Standard solution* (mg/mL)

$C_U$  = concentration of Oxcarbazepine in the *Sample solution* (mg/mL)

**Acceptance criteria:** 98.0%–102.0% on the anhydrous basis

### IMPURITIES

#### Inorganic Impurities

- RESIDUE ON IGNITION** (281): NMT 0.1%
- HEAVY METALS, Method II** (231): 10 ppm

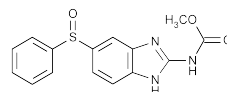
### SPECIFIC TESTS

- WATER DETERMINATION, Method Ia** (921): NMT 0.5%

### ADDITIONAL REQUIREMENTS

- PACKAGING AND STORAGE:** Preserve in well-closed containers. Store at controlled room temperature.
- USP REFERENCE STANDARDS** (11)  
USP Oxcarbazepine RS

## Oxfendazole



$C_{15}H_{13}N_3O_3S$  315.35

Carbamic acid, 5-(phenylsulfinyl)-1*H*-benzimidazol-2-yl-, methyl ester.

Methyl 5-(phenylsulfinyl)-2-benzimidazolecarbamate [53716-50-0].

» Oxfendazole contains not less than 98.0 percent and not more than 100.5 percent of  $C_{15}H_{13}N_3O_3S$ , calculated on the dried basis.

**Packaging and storage**—Preserve in well-closed, light-resistant containers.

**Labeling**—Label it to indicate that it is for veterinary use only.

### USP Reference standards (11)—

USP Fenbendazole RS

USP Oxfendazole RS

#### Identification—

**A:** *Infrared Absorption* (197K).

**B:** The appearance of the principal spot in the chromatogram of the *Test solution* corresponds to that in the chromatogram of the *Reference solution*.