⟨181⟩ IDENTIFICATION—ORGANIC NITROGENOUS BASES

INTRODUCTION

The purpose of this test is the identification of tertiary amine compounds. This spectroscopic test has a limited degree of specificity and, therefore, the conformance with all additional identification tests listed in a particular monograph is necessary to ensure the identity of the specimen under examination.

ASSAY

• **PROCEDURE**

Standard solution: In a separator dissolve 50 mg of the corresponding USP Reference Standard in 25 mL of 0.01 N hydrochloric acid.

Sample solution: Depending upon the nature of the sample, dissolve 50 mg of the bulk substance under test in 25 mL of 0.01 N hydrochloric acid, or shake a quantity of powdered tablets or the contents of capsules, equivalent to 50 mg of the substance, with 25 mL of 0.01 N hydrochloric acid for 10 min. Transfer the liquid to a separator, filtering if necessary, and washing the filter and the residue with several small portions of water.

Instrumental conditions

(See *Mid-Infrared Spectroscopy* ⟨854⟩.)

Mode: IR

Wavelength range: 7–15 µm (1430 cm^{-1} to 650 cm^{-1})

Cell: 1-mm

Blank: Carbon disulfide

Analysis

Samples: *Standard solution* and *Sample solution*

Treat each solution as follows: Add 2 mL of 1 N sodium hydroxide and 4 mL of carbon disulfide, and shake for 2 min. Centrifuge if necessary to clarify the lower phase, and pass it through a dry filter, collecting the filtrate in a small flask provided with a glass stopper. Determine the absorption spectra of the filtered *Standard solution* and *Sample solution* without delay.

Acceptance criteria: The spectrum of the *Sample solution* must show all of the significant absorption bands present in the spectrum of the *Standard solution*.