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# <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  $\mu\text{m}$  (1430  $\text{cm}^{-1}$  to 650  $\text{cm}^{-1}$ )

**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*.

**Auxiliary Information** - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
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