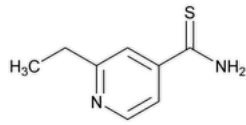


Status: Currently Official on 14-Feb-2025
Official Date: Official as of 01-Dec-2022
Document Type: USP Monographs
DocId: GUID-1C310914-2708-4655-BEB1-73348BFB9DC0_3_en-US
DOI: https://doi.org/10.31003/USPNF_M31550_03_01
DOI Ref: n4uz8

© 2025 USPC
Do not distribute

Ethionamide



$C_8H_{10}N_2S$ 166.24
4-Pyridinecarbothioamide, 2-ethyl-;
2-Ethylthioisonicotinamide CAS RN®: 536-33-4; UNII: OAY8ORS3CQ.

DEFINITION

Ethionamide contains NLT 98.0% and NMT 102.0% of ethionamide ($C_8H_{10}N_2S$), calculated on the anhydrous basis.

IDENTIFICATION

- **A. [SPECTROSCOPIC IDENTIFICATION TESTS \(197\)](#), [Infrared Spectroscopy](#):** 197K
 - **B. [SPECTROSCOPIC IDENTIFICATION TESTS \(197\)](#), [Ultraviolet-Visible Spectroscopy](#):** 197U
- Standard solution and Sample solution:** Prepare as directed in the Assay.
Acceptance criteria: Meets the requirements

ASSAY

• **PROCEDURE**

Standard solution: 10 µg/mL of [USP Ethionamide RS](#) in [methanol](#)

Sample solution: 10 µg/mL of Ethionamide in [methanol](#)

Instrumental conditions

Mode: UV

Analytical wavelength: 290 nm

Cell: 1 cm

Blank: [Methanol](#)

Analysis

Samples: *Standard solution and Sample solution*

Calculate the percentage of ethionamide ($C_8H_{10}N_2S$) in the portion of Ethionamide taken:

$$\text{Result} = (A_U/A_S) \times (C_S/C_U) \times 100$$

A_U = absorbance of the *Sample solution*

A_S = absorbance of the *Standard solution*

C_S = concentration of [USP Ethionamide RS](#) in the *Standard solution* (µg/mL)

C_U = concentration of Ethionamide in the *Sample solution* (µg/mL)

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

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.2%

Delete the following:

- ▲ [SELENIUM \(291\)](#) ▲ (USP 1-Dec-2022)

SPECIFIC TESTS

- [MELTING RANGE OR TEMPERATURE \(741\)](#): 158°–164°
- [pH \(791\)](#)

Sample solution: 10 mg/mL in [water](#). The solution is slurry.

Acceptance criteria: 6.0–7.0

- [WATER DETERMINATION \(921\)](#), [Method I](#): NMT 2.0%

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in tight containers.
- **USP REFERENCE STANDARDS (11).**
[USP Ethionamide RS](#)

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

Topic/Question	Contact	Expert Committee
ETHIONAMIDE	Documentary Standards Support	SM12020 Small Molecules 1

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

Pharmacopeial Forum: Volume No. 47(3)

Current DocID: GUID-1C310914-2708-4655-BEB1-73348BFB9DC0_3_en-US

DOI: https://doi.org/10.31003/USPNF_M31550_03_01

DOI ref: [n4uz8](#)

OFFICIAL