# PRODUCT INFORMATION



## **Ethionamide**

Item No. 23714

CAS Registry No.: 536-33-4

Formal Name: 2-ethyl-4-pyridinecarbothioamide

≥4 years

NSC 255115 Synonym: MF:  $C_8H_{10}N_2S$ FW: 166.2 **Purity:** ≥98%  $\lambda_{\text{max}}$ : 290 nm A solid UV/Vis.: Supplied as: 4°C Storage:

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## **Laboratory Procedures**

Ethionamide is supplied as a solid. A stock solution may be made by dissolving the ethionamide in the solvent of choice. Ethionamide is soluble in the organic solvent DMSO, which should be purged with an inert gas. Ethionamide is also slightly soluble in methanol.

## Description

Stability:

Ethionamide is an antimycobacterial compound that is active against M. tuberculosis (MICs = 0.3-1.25 µg/ml). 1,2 It is activated via oxidation by flavin monooxygenase and inhibits the InhA enzyme involved in mycolic acid biosynthesis. Formulations containing ethionamide have been used in the second-line treatment of multi-drug resistant tuberculosis.

### References

- 1. Laborde, J., Deraeve, C., and Bernardes-Génisson, V. Update of antitubercular prodrugs from a molecular perspective: Mechanisms of action, bioactivation pathways, and associated resistance. ChemMedChem 12(20), 1657-1676 (2017).
- 2. Heifets, L.B., Lindholm-Levy, P.J., and Flory, M. Comparison of bacteriostatic and bactericidal activity of isoniazid and ethionamide against Mycobacterium avium and Mycobacterium tuberculosis. Am. Rev. Respir. Dis. 143(2), 268-270 (1991).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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