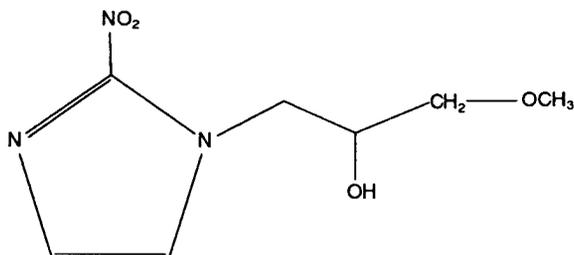


MISONIDAZOLE

NSC - 261037



Chemical Name:

α -(Methoxymethyl)-2-nitro-1*H*-imidazole-1-ethanol

Other Names:

Ro-7-0582; 1-(2-Nitroimidazolyl)-3-methoxy-2-propanol;

CAS Registry Number: 13551-87-6

Molecular Formula: C₇H₁₁N₃O₄

M.W.: 201.2

Approximate Solubility:

(mg/mL)

Water	8
Methanol	70
Ethanol	10
Chloroform	10
Acetone	50
Ethyl acetate	8
Dimethylsulfoxide	> 100
Trifluoroethanol	> 100

Stability:

Bulk:

Protected from light, a sample stored for 90 days at 60 °C showed no decomposition (UV or TLC). Exposed to light, a sample at room temperature showed 3% decomposition after 90 days.

Solution:

A solution in 0.1 N HCl showed no decomposition after 4 days. As a 2% solution at room temperature with and without light, the compound is also stable for at least 4 days. When kept in the refrigerator for 15 days <1% decomposition occurs (TLC).

Ultraviolet Absorption:

(95% EtOH)

$$\lambda_{\max} = 316 \pm 2 \text{ nm}$$

$$\epsilon = 7,060 - 7,400$$

High Performance Liquid Chromatography:

Column: μ Bondapak C₁₈, 3.9 mm x 30 cm

Mobile Phase: 30% MeOH in H₂O

Flow Rate: 1.0 mL/min

Detection: UV at 254 nm

Retention Volume: 6.0 mL (NSC-261037)

Toxicity Data:

Rat(po): LD₅₀: 2131 mg/kg

National Technical Information Service, PB81-121212

Mouse(po): LD₅₀: 1869 mg/kg

NCI Screening Program Data Summary

Mouse(ip): LD₅₀: 1340 mg/kg

Radiation Research, 91,816,(1982)

Mouse(sc): LD₅₀: 1414 mg/kg

Antimicrobial Agents and Chemotherapy, 513,(1967)