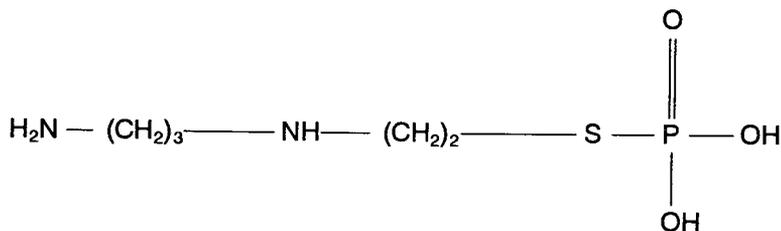


# ETHIOFOS

NSC - 296961



**Chemical Name:**

2-[(3-Aminopropyl)amino]ethanethiol, dihydrogen phosphate (ester)

**Other Names:**

Amifostine (USAN/INN); Gammaphos; WR-2721; Ethyol®

**CAS Registry Number:** 20537-88-6

**Molecular Formula:** C<sub>5</sub>H<sub>15</sub>N<sub>2</sub>O<sub>3</sub>PS

**M.W.:** 214.2

**Approximate Solubility:**

(mg/mL)

Water	≈ 450
95% Ethanol	< 0.01
Chloroform	< 0.01
Toluene	< 0.01

**Stability:****Bulk:**

A small sample stored in a small container at 60 °C showed about 14% decomposition in 24 hours. A small sample stored in a large container at 60 °C for 30 days appeared to be stable. The stability of the compound is dependent on the temperature and the relative amount of moisture present (HPLC and TLC). The compound should be stored under refrigeration in tightly closed containers.

**Solution:**

A 5% aqueous solution showed about 1% decomposition after 24 hours at room temperature (TLC).

**High Performance Liquid Chromatography:**

<b>Column:</b>	C <sub>18</sub> Reverse Phase, 300 mm x 4 mm i.d.
<b>Mobile Phase:</b>	H <sub>2</sub> O
<b>Flow Rate:</b>	1.0 mL/min
<b>Detection:</b>	UV at 200 nm
<b>Sample Preparation:</b>	Immediately prior to injection each sampling was dissolved in 0.10 mL of water
<b>Retention Volume:</b>	4.0 mL (NSC-296961)

## Toxicity Data:

Rat(ip): LD<sub>50</sub>: 418 mg/kg  
Radiobiologiya, 16,249,(1976)

Rat(im): LD<sub>50</sub>: 396 mg/kg  
Radiobiologiya, 16,249,(1976)

Mouse(po): LD<sub>50</sub>: 842 mg/kg  
Radiobiologiya, 20,746,(1980)

Mouse(ip): LD<sub>50</sub>: 321 mg/kg  
NCI Screening Program Data Summary

Mouse(iv): LD<sub>50</sub>: 557 mg/kg  
National Technical Information Service, PB81-199580

Mouse (im): LD<sub>50</sub>: 514 mg/kg  
Radiobiologiya, 16,249,(1976)

Dog(iv): LD<sub>Lo</sub>: 279 mg/kg  
Toxicologic Pathology, 13,58,(1985)