



>> **Entry Name:** Amifostine, BAN, INN, USAN

Synonym(s): 2-[(3-Aminopropyl)amino]ethanethiol dihydrogen phosphate, 8Cl. Ethiofos. Ethiol. Fosteamine. Gammaphos. APAETF. SAPEP. NSC 296961. WR 2721. YM 038310Ed

CAS Registry Number: 20537-88-6

Related CAS Registry Numbers(s): 63717-27-1



Molecular Formula: C₅H₁₅N₂O₃PS

Molecular Weight: 214.225

Accurate Mass: 214.0541

Percentage Composition: C 28.03%; H 7.06%; N 13.08%; O 22.41%; P 14.46%; S 14.97%

Use/Importance: Radioprotective and mucolytic agent. Protects mice against cisplatin-induced nephrotoxicity and myelosuppression

Development Status: Launched 1995 (Germany)

Melting Point: Mp 160-161°

Hazard & Toxicity: LD₅₀ (mus, orl) 842 mg/kg. Exp. reprod. and teratogenic effects

Sigma: A5922

References:

- Piper, J.R. *et al.*, *J. Med. Chem.*, 1969, **12**, 236, (*synth, pharmacol*)
Rozman, R.S., *Anal. Chem.*, 1976, **48**, 989, (*tlc*)
Phillips, T.L., *Cancer Clin. Trials*, 1980, **3**, 165
Laduranty, J. *et al.*, *Bull. Soc. Chim. Belg.*, 1984, **93**, 903, (*synth*)
Swynnerton, N.F. *et al.*, *Int. J. Radiat. Oncol., Biol., Phys.*, 1984, **10**, 1521, (*hplc*)
Karle, J.M. *et al.*, *Acta Cryst. C*, 1988, **44**, 135, (*cryst struct*)
Martindale, *The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 1336
Treskes, M. *et al.*, *Eur. J. Cancer, Part A*, 1994, **30**, 183, (*pharmacol*)
Spencer, C.M. *et al.*, *Drugs*, 1995, **50**, 1001, (*rev, pharmacokinet*)
Culy, C.R. *et al.*, *Drugs*, 2001, **61**, 641-684
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, AMC750; AMD000