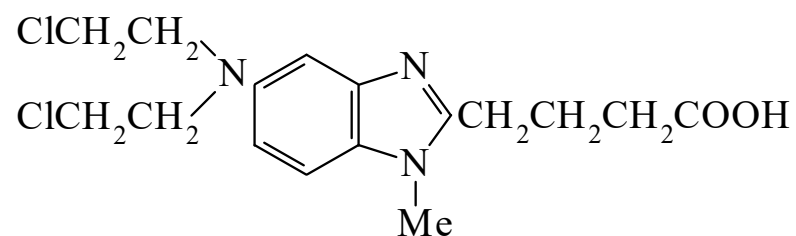




>>Entry Name: Bendamustine, INN

Synonym(s): 5-[Bis(2-chloroethyl)amino]-1-methyl-1*H*-benzimidazole-2-butanoic acid, 9Cl



CAS Registry Number: 16506-27-7

Related CAS Registry Numbers(s): 109882-25-9

Molecular Formula: C₁₆H₂₁Cl₂N₃O₂

Molecular Weight: 358.266

Accurate Mass: 357.101081

Percentage Composition: C 53.64%; H 5.91%; Cl 19.79%; N 11.73%; O 8.93%

Use/Importance: Antineoplastic agent

Physical Description: Cryst. (EtOH)

Melting Point: Mp 133-136°

Calculated Log P Data: Log P 3.06 (calc)

>>Derivative: Hydrochloride

Synonym(s): Cytostasan. Ribomustin. IMET 3393

CAS Registry Number: 3543-75-7

Physical Description: Bitter tasting cryst.

Melting Point: Mp 152-156°

Hazard & Toxicity: LD₅₀ (rat, orl) 200 mg/kg. LD₅₀ (rat, ivn) 40 mg/kg. Exp. reprod. and teratogenic effects. Exp. carcinogen

References:

Ozegowski, W. *et al.*, *Zentralbl. Pharm., Pharmakother. Laboratoriumsdiagn.*, 1971, **110**, 1013; 1057; 1087, (*pharmacol, synth*)

Heinecke, H. *et al.*, *Arzneim.-Forsch.*, 1972, **22**, 122, (*tox*)

Klose, G. *et al.*, *Org. Magn. Reson.*, 1982, **19**, 15, (*pmr, bibl*)

Werner, W. *et al.*, *Pharmazie*, 1987, **42**, 272, (*synth, ms*)

Weber, H. *et al.*, *J. Chromatogr.*, 1990, **525**, 459, (*gc*)

Gust, R. *et al.*, *Monatsh. Chem.*, 1997, **128**, 291, (*synth, pmr, cmr*)

Barman-Balfour, J.A. *et al.*, *Drugs*, 2001, **61**, 631-638, (*Bendamustine*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, CQM750