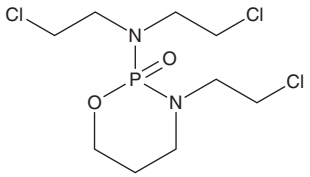
PRODUCT INFORMATION

Trofosfamide

Item No. 21874

CAS Registry No.:	22089-22-1
Formal Name:	N,N,3-tris(2-chloroethyl)tetrahydro-2H-1,3,2-oxazaphosphorin-2-amine, 2-oxide
Synonym:	NSC 109723
MF:	$C_9H_{18}Cl_3N_2O_2P$
FW:	323.6
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Trofosfamide is supplied as a crystalline solid. A stock solution may be made by dissolving the trofosfamide in the solvent of choice, which should be purged with an inert gas. Trofosfamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of trofosfamide in ethanol and DMF is approximately 50 mg/ml and approximately 30 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of trofosfamide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of trofosfamide in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Trofosfamide is a nitrogen mustard alkylating agent and a derivative of cyclophosphamide (Item No. 13849) that has antiproliferative activities.[1,2] It increases the number of micronucleated polychromatic red blood cells isolated from mouse bone marrow, indicating cytogenetic activity, when administered at doses of 40, 80, and 160 mg/kg.[3] Trofosfamide (100 mg/kg) inhibits proliferation of isolated splenocytes in the allogenic mixed lymphocyte reaction.[1] It reduces sheep red blood cell-induced increases in the number of antibody-producing spleen cells isolated from rats when administered at a dose of 40 mg/kg.[2]

References

1. Devlin, R.G., Schwartz, N.L., Baronowsky, P.E., *et al.* Inhibition of cellular immune reactions by cyclophosphamide analogues ifosfamide and trofosfamide. I. Mixed lymphocyte reaction. *Proc. Soc. Exp. Biol. Med.* **145(2),** 389-391 (1974).
2. Harrison, E.F. and Fuquay, M.E. Immunosuppressive properties of cyclophosphamide analogues. *Proc. Soc. Exp. Biol. Med.* **139(3),** 957-963 (1972).
3. Wild, D. Cytogenetic effects in the mouse of 17 chemical mutagens and carcinogens evaluated by the micronucleus test. *Mutat. Res.* **56(3),** 319-327 (1978).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM