

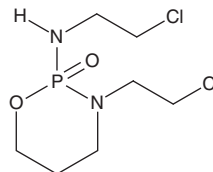
PRODUCT INFORMATION



Ifosfamide

Item No. 17562

CAS Registry No.: 3778-73-2
Formal Name: N,3-bis(2-chloroethyl)tetrahydro-2H-1,3,2-oxazaphosphorin-2-amine 2-oxide
Synonyms: Isophosphamide, NSC 109724
MF: $C_7H_{15}Cl_2N_2O_2P$
FW: 261.1
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

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

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 ifosfamide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ifosfamide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ifosfamide is a nitrogen mustard alkylating agent used as a chemotherapeutic agent against advanced transitional cell carcinoma.¹ It is a structural derivative of cyclophosphamide (Item No. 13849) that was developed for improved solubility and antitumor activity. Like cyclophosphamide, ifosfamide serves as a prodrug that is either metabolized to its active DNA alkylating form, isophosphoramide mustard, or catabolized through a dechloroethylation pathway to the neurotoxic and nephrotoxic chloroacetaldehyde.²

References

1. Perabo, F.G.E. and Müller, S.C. New agents for treatment of advanced transitional cell carcinoma. *Ann. Oncol.* **18**, 835-843 (2007).
2. Tascilar, M., Loos, W.J., Seynaeve, C., et al. The pharmacologic basis of ifosfamide use in adult patients with advanced soft tissue sarcomas. *Oncologist* **12**, 1351-1360 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

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