

PRODUCT INFORMATION



Dibutyl-3-Hydroxybutyl Phosphate

Item No. 9001825

CAS Registry No.: 89197-69-3

Formal Name: phosphoric acid, dibutyl
3-hydroxybutyl ester

Synonym: TBP-OH

MF: $C_{12}H_{27}O_5P$

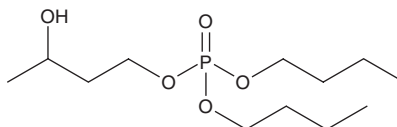
FW: 282.3

Purity: $\geq 95\%$

Supplied as: A 10 mg/ml solution in methanol

Storage: -20°C

Stability: ≥ 1 year



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

Laboratory Procedures

Dibutyl 3-hydroxybutyl phosphate is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of dibutyl 3-hydroxybutyl phosphate in ethanol and DMSO is approximately 16 mg/ml and approximately 25 mg/ml in DMF.

Dibutyl 3-hydroxybutyl phosphate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methanolic solution of dibutyl 3-hydroxybutyl phosphate should be diluted with the aqueous buffer of choice. The solubility of dibutyl 3-hydroxybutyl phosphate in PBS (pH 7.2) is approximately 1.6 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Dibutyl 3-hydroxybutyl phosphate is a compound produced from the metabolism of the organophosphorus solvent, tributyl phosphate (TBP). Incubation of goldfish liver microsomes in the presence of NADPH has been shown to convert TBP into dibutyl-3-hydroxybutyl phosphate and dibutyl phosphate.¹ Dibutyl-3-hydroxybutyl phosphate has also been produced during radiolysis of TBP.²

References

1. Sasaki, K., Suzuki, T., Takeda, M., *et al.* Metabolism of phosphoric acid triesters by goldfish, *Carassius auratus*. *Eisei Kagaku* **31**(6), 397-404 (1985).
2. Lesage, D., Virelizier, H., Jankowski, C.K., *et al.* Identification of minor products obtained during radiolysis of tributylphosphate (TBP). *Spectroscopy* **13**(4), 275-290 (1997).

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, 11/11/2025

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