

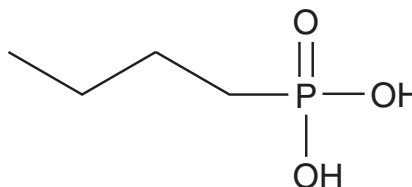
PRODUCT INFORMATION



Propylphosphonic Acid

Item No. 21702

CAS Registry No.: 4672-38-2
Formal Name: P-propyl-phosphonic acid
Synonyms: PPA, Propanephosphonic Acid
MF: $C_3H_9O_3P$
FW: 124.1
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

Propylphosphonic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the propylphosphonic acid in the solvent of choice, which should be purged with an inert gas. Propylphosphonic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of propylphosphonic acid in these solvents is approximately 30, 2, and 5 mg/ml, respectively.

Propylphosphonic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, propylphosphonic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Propylphosphonic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Propylphosphonic acid is a compound that is highly susceptible to degradation by radical species. It has been used to investigate the inactivation of *A. hydrophila* by free radicals produced spontaneously in oxidizing iron-containing groundwaters.¹ It has also been used to identify toxic nerve agents in water samples.²

References

1. Kersters, I., and Verstraete, W. Inactivation of *Aeromonas hydrophila* by Fe(II)-related-radical generation in oxidizing groundwaters. *Appl. Environ. Microbiol.* **62(9)**, 3277-83 (1996).
2. Pardasani, D., Kanaujia, P.K., Gupta, A.K., et al. In situ derivatization hollow fiber mediated liquid phase microextraction of alkylphosphonic acids from water. *J. Chromatogr. A.* **1141(2)**, 151-157 (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.

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