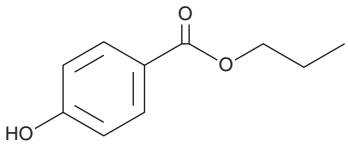
PRODUCT INFORMATION

Propylparaben

Item No. 37417

CAS Registry No.: 94-13-3
Formal Name: 4-hydroxy-benzoic acid, propyl ester
Synonyms: NSC 8511, NSC 23515, Propyl 4-hydoxybenzoate, Propyl *p*-hydoxybenzoate, Propyl *para*-hydoxybenzoate
MF: $C_{10}H_{12}O_3$
FW: 180.2
Purity: ≥98%
UV/Vis.: λ_{max}: 258 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

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

Description

Propylparaben is a paraben that has been found in *R. chamaemorus* and has diverse biological activities.[1-4] It is active against several strains of *P. stutzeri* (MICs = 250-300 µg/ml).[2] Propylparaben binds to estrogen receptors in a concentration-dependent manner, and administration of propylparaben (1% in the diet) decreases sperm counts and serum testosterone levels in rats.[3,4] Propylparaben has been found in influent and effluent wastewater.[5] Formulations containing propylparaben have been used as preservatives in cosmetics, food, and pharmaceuticals.

References

1. Baardseth, P. and Russwurm, H., Jr. Content of some organic acids in cloudberry (*Rubus chamaemorus* L.). *Food Chem.* **3(1)**, 43-46 (1978).
2. Tattawasart, U., Maillard, J.-Y., Furr, J.R., *et al.* Comparative responses of *Pseudomonas stutzeri* and *Pseudomonas aeruginosa* to antibacterial agents. *J. Appl. Microbiol.* **87(3)**, 323-331 (1999).
3. Routledge, E.J., Parker, J., Odum, J., *et al.* Some alkyl hydroxy benzoate preservatives (parabens) are estrogenic. *Toxicol. Appl. Pharmacol.* **153(1)**, 12-19 (1998).
4. Oishi, S. Effects of propyl paraben on the male reproductive system. *Food Chem. Toxicol.* **40(12)**, 1807-1813 (2002).
5. Wang, W. and Kannan, K. Fate of parabens and their metabolites in two wastewater treatment plants in New York state, United States. *Environ. Sci. Technol.* **50(3)**, 1174-1181 (2016).

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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