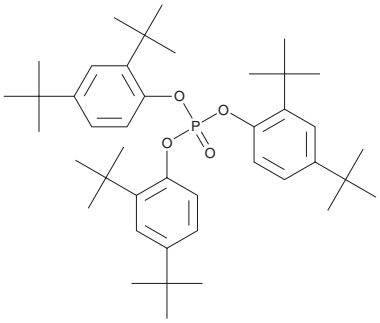
PRODUCT INFORMATION

TDTBPP

Item No. 39138

CAS Registry No.:	95906-11-9
Formal Name:	2,4-*bis*(1,1-dimethylethyl)-phenol, 1,1′,1′′-phosphate
Synonyms:	AAN06119, TBPP-ox, Tris(2,4-di-*t*-butylphenyl) Phosphate
MF:	$C_{42}H_{63}O_4P$
FW:	662.9
Purity:	≥95%
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

TDTBPP is supplied as a solid. A stock solution may be made by dissolving the TDTBPP in the solvent of choice, which should be purged with an inert gas. TDTBPP is slightly soluble in methanol and chloroform.

TDTBPP is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

TDTBPP is a degradation product of the phenolic antioxidant tri(2,4-di-*t*-butylphenyl) phosphite (TDTBPPO), which has been used in plastics manufacturing.[1] It has been found in the dust from discarded electronic parts (e-waste dust), house dust, sediment, water, and air.[1,2] TDTBPP has also been found in *V. negundo* and has anti-inflammatory activity.[3] It reduces paw edema in a rat model of carrageenan-induced acute inflammation when administered at doses of 50 and 70 mg/kg.

References

1. Dorival-García, N., and Bones, J. Evaluation of solvent systems for optimized extractables studies of single use bioprocessing solutions. *J. Chromatogr. A* **1513**, 69-77 (2017).
2. Venier, M., Stubbings, W.A., Guo, J., *et al.* Tri(2,4-di-*t*-butylphenyl) phosphate: A previously unrecognized, abundant, ubiquitous pollutant in the built and natural environment. *Environ. Sci. Technol.* **52(22)**, 12997-13003 (2018).
3. Vinuchakkaravarthy, T., Kumaravel, K.P., Ravichandran, S., *et al.* Active compound from the leaves of *Vitex negundo* L. shows anti-inflammatory activity with evidence of inhibition for secretory phospholipase A_2 through molecular docking. *Bioinformation* **7(4)**, 199-206 (2011).

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