



Tetradecabromodiphenoxybenzene (TDBDPB) and some of its metabolites

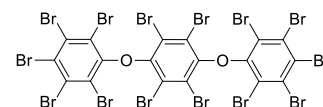
Brominated flame retardants (BFRs) are widely used in various commercial products such as furniture, textiles, plastics, paints, and electronic appliances as additive and reactive substances to reduce flammability and hinder fire ignition.

There are at least 75 different BFRs which have been used in commercial products. One of them is Tetradecabromodiphenoxybenzene (TDBDPB), a compound with a high molecular weight due to its 14 bromine atoms. It was promoted as a compound with low rates of bioaccumulation, and excellent thermal and photolytic stability.

Studies have shown that TDBDPB does undergo UV and natural sunlight degradation. The findings do not stop at the expected debromination products. Most recently, various methoxylated debrominated TDBDPB metabolites were found in Herring Gull eggs from the Great Lakes of North America. G. Su et al has identified the spectra base structure of four MeO-pentabromoDPBs, a MeO-hexabromoDPB and a MeO-tetrabromoDPB as the metabolites.

To aid the ongoing research regarding the metabolism and environmental impact of TDBDPB, we have synthesized and provide a variety of hydroxylated and methoxylated polybrominated diphenoxybenzene metabolites, as well as polybrominated diphenoxybenzene degradation products as reference standards.

Compound	Matrix	Cat. No.	Unit
4"-Hydroxy-2,2',2",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-401S	1 mL
4"-Hydroxy-2,2',3',4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-402S	1 mL
4"-Hydroxy-2,2',4,6-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-403S	1 mL
6"-Hydroxy-2,2',4,5"-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-404S	1 mL
4"-Hydroxy-2,2',4,5-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-405S	1 mL
6"-Hydroxy-2,2',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-406S	1 mL
6"-Hydroxy-2,3',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-407S	1 mL
4"-Hydroxy-2,3',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-408S	1 mL
4"-Hydroxy-2,2',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-409S	1 mL
6"-Hydroxy-2,2',2",4-tetrabromodiphenoxy benzene	50 µg/mL in AcCN	HBDPB-410S	1 mL
4"-Hydroxy-2,2',2",4,5-pentabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-501S	1 mL
6"-Hydroxy-2,2',3',4,5"-pentabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-502S	1 mL
6"-Hydroxy-2,2',4,5",6-pentabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-503S	1 mL
4"-Hydroxy-2,2',4,6,6'-pentabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-504S	1 mL
6"-Hydroxy-2,2',2",4,5"-pentabromodiphenoxybenzene	50 µg/mL in AcCN	HBDPB-505S	1 mL
4"-Hydroxy-2,2',3",4,5-pentabromodiphenoxybenzene NEW	50 µg/mL in AcCN	HBDPB-507S	1 mL
4"-Hydroxy-2,2',2",4,6-pentabromodiphenoxybenzene NEW	50 µg/mL in AcCN	HBDPB-508S	1 mL
4"-Methoxy-2,2',2",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-401S	1 mL
4"-Methoxy-2,2',3',4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-402S	1 mL
4"-Methoxy-2,2',4,6-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-403S	1 mL
6"-Methoxy-2,2',4,5"-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-404S	1 mL
4"-Methoxy-2,2',4,5-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-405S	1 mL
6"-Methoxy-2,2',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-406S	1 mL
6"-Methoxy-2,3',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-407S	1 mL
4"-Methoxy-2,3',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-408S	1 mL
4"-Methoxy-2,2',3",4-tetrabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-409S	1 mL
6"-Methoxy-2,2',2",4-tetrabromodiphenoxy benzene	50 µg/mL in AcCN	MOBDPB-410S	1 mL
4"-Methoxy-2,2',2",4,5-pentabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-501S	1 mL
6"-Methoxy-2,2',3',4,5"-pentabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-502S	1 mL
6"-Methoxy-2,2',4,5",6-pentabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-503S	1 mL
4"-Methoxy-2,2',4,6,6'-pentabromodiphenoxybenzene	50 µg/mL in AcCN	MOBDPB-504S	1 mL
6"-Methoxy-2,2',2",4,5"-pentabromodiphenoxy benzene	50 µg/mL in AcCN	MOBDPB-505S	1 mL
4"-Methoxy-2,2',3',4,5"-pentabromodiphenoxybenzene NEW	50 µg/mL in AcCN	MOBDPB-507S	1 mL
4"-Methoxy-2,2',2",4,6-pentabromodiphenoxybenzene NEW	50 µg/mL in AcCN	MOBDPB-508S	1 mL
5"-Methoxy-2,3',4,4",6-pentabromodiphenoxybenzene NEW	50 µg/mL in AcCN	MOBDPB-514S	1 mL
2,2',4,4"-Tetrabromodiphenoxybenzene	50 µg/mL in AcCN	BDPB-401S	1 mL
2,2',2",4-Tetrabromodiphenoxybenzene	50 µg/mL in AcCN	BDPB-402S	1 mL
2,2',4,6-Tetrabromodiphenoxybenzene NEW	50 µg/mL in AcCN	BDPB-404S	1 mL
2,2',2",4,4"-Pentabromodiphenoxybenzene	50 µg/mL in AcCN	BDPB-501S	1 mL



Reference Papers

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