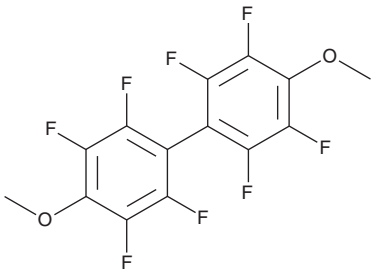
PRODUCT INFORMATION

4,4'-Dimethoxyoctafluorobiphenyl

Item No. 18652

CAS Registry No.:	2200-71-7
Formal Name:	2,2',3,3',5,5',6,6'-octafluoro-4,4'-dimethoxy-1,1'-biphenyl
Synonym:	NSC 97033
MF:	$C_{14}H_6F_8O_2$
FW:	358.2
Purity:	≥95%
UV/Vis.:	λ_{max}: 244 nm
Supplied as:	A crystalline solid
Stability:	≥2 years at -20°C
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

4,4'-Dimethoxyoctafluorobiphenyl is supplied as a crystalline solid. A stock solution may be made by dissolving the 4,4'-dimethoxyoctafluorobiphenyl in the solvent of choice, which should be purged with an inert gas. 4,4'-Dimethoxyoctafluorobiphenyl is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4,4'-dimethoxyoctafluorobiphenyl in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

4,4'-Dimethoxyoctafluorobiphenyl is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4,4'-dimethoxyoctafluorobiphenyl should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4,4'-Dimethoxyoctafluorobiphenyl has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4,4'-Dimethoxyoctafluorobiphenyl is a compound that has been used to investigate the relationship between intramolecular rotational dynamics and molecular and crystal structure using NMR spin-lattice relaxation experiments.[1]

Reference

1. Fahey, D.P., Dougherty, W.G., Jr., Kassel, W.S., *et al.* Nonexponential solid state 1H and 19F spin-lattice relaxation, single-crystal X-ray diffraction, and isolated-molecule and cluster electronic structure calculations in an organic solid: Coupled methyl group rotation and methoxy group libration in 4,4'-dimethoxyoctafluorobiphenyl. *J. Phys. Chem. A.* **116(48)**, 11946-11956 (2012).

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