

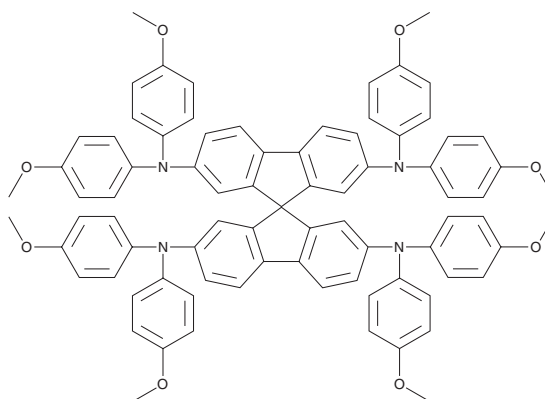
PRODUCT INFORMATION



Spiro-MeOTAD

Item No. 17317

CAS Registry No.: 207739-72-8
Formal Name: N²,N²,N²,N²,N⁷,N⁷,N⁷,N⁷-octakis(4-methoxyphenyl)-9,9'-spirobi[9H-fluorene]-2,2',7,7'-tetramine
Synonym: 2,2',7,7'-Tetrakis-(N,N-di-4-methoxyphenylamino)-9,9'-spirobifluorene
MF: C₈₁H₆₈N₄O₈
FW: 1225.4
Purity: ≥95%
UV/Vis.: λ_{max}: 205, 302, 383 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Spiro-MeOTAD is supplied as a crystalline solid. A stock solution may be made by dissolving the spiro-MeOTAD in the solvent of choice, which should be purged with an inert gas. Spiro-MeOTAD is soluble in the organic solvent dimethyl formamide at a concentration of approximately 10 mg/ml.

Spiro-MeOTAD is sparingly 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

Spiro-MeOTAD is a stable and efficient hole-transport material in organic light-emitting devices and in solid-state dye-sensitized solar cells (ssDSSCs).¹ It yields higher ssDSSC efficiency compared to the liquid electrolyte for DSSC solar cells due to its reasonable charge carrier mobility and its amorphous nature and high solubility, which enables excellent infiltration into mesoporous titania films.¹ Neutral spiro-MeOTAD absorbs light in the UV region of the spectrum, while its oxidized forms exhibit strong absorptions throughout the visible and near-infrared ranges.¹

Reference

1. Fantacci, S., De Angelis, F., Nazeeruddin, M.K., *et al.* Electronic and optical properties of the spiro-MeOTAD hole conductor in its neutral and oxidized forms: A DFT/TDDFT investigation. *J. Phys. Chem. C* **115**, 23126-23133 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

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