

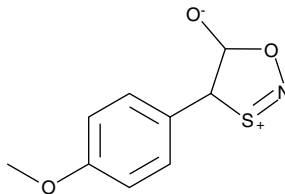
Product Information



CAY10565

Item No. 10010528

Formal Name:	4-methoxy-4-phenyl-1,3,2-oxathiazolidine-5-one
Synonym:	4-(<i>p</i> -methoxyphenyl)-1,3,2-Oxathiazolylium-5-olate
MF:	C ₉ H ₉ NO ₃ S
FW:	211.2
Purity:	≥95%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ _{max} : 202, 268, 436 nm



Laboratory Procedures

For long term storage, we suggest that CAY10565 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10565 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10565 in an organic solvent purged with an inert gas. CAY10565 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10565 in ethanol is approximately 0.25 mg/ml and approximately 20 mg/ml in DMSO and DMF. *NOTE: This product is unstable in solution, dissolve and use immediately.*

CAY10565 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10565 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10565 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

S-Nitrosothiols (RSNOs) are a class of molecules that function as exogenous and endogenous nitric oxide (NO) donors. RSNOs found *in vivo* include proteins such as S-nitrosohemoglobin and S-nitrosoalbumin, as well as low molecular weight species such as S-nitrosoglutathione (GSNO) and S-nitrosocysteine (CysNO). CAY10565 is a member of a new class of S-nitrosothiol species that act as NO donors under acidic conditions. It decomposes with a half-life of 130 minutes in 0.1 M phosphate buffer, pH 5.0, at 37°C and relaxes phenylephrine-constricted rat aortic strips 71% and 44% at pH 6.0 and 7.4, respectively.¹

Reference

1. Lu, D., Nadas, J., Zhang, G., *et al.* 4-Aryl-1,3,2-oxathiazolylium-5-olates as pH-controlled NO-donors: The next generation of S-nitrosothiols. *Journal of American Chemical Society* **129**, 5503-5514 (2007).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010528

WARNING: THIS PRODUCT IS NOT FOR HUMAN OR ANIMAL DISEASE DIAGNOSIS OR THERAPEUTIC DRUG USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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