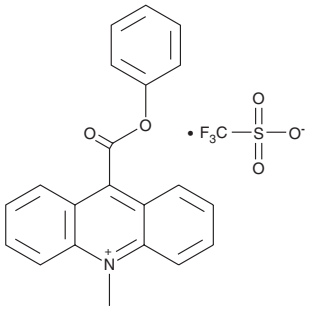
PRODUCT INFORMATION

10-methyl-9-(phenoxycarbonyl) Acridinium (trifluoromethylsulfonate)

Item No. 25885

CAS Registry No.:	161006-14-0
Formal Name:	10-methyl-9-(phenoxycarbonyl)-acridinium, 1,1,1-trifluoromethanesulfonate
MF:	$C_{21}H_{16}NO_2 \bullet CF_3O_3S$
FW:	463.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 262, 267, 285, 425 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

10-methyl-9-(phenoxycarbonyl) Acridinium (trifluoromethylsulfonate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 10-methyl-9-(phenoxycarbonyl) acridinium (trifluoromethylsulfonate) in the solvent of choice. 10-methyl-9-(phenoxycarbonyl) Acridinium (trifluoromethylsulfonate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of 10-methyl-9-(phenoxycarbonyl) acridinium (trifluoromethylsulfonate) in these solvents is approximately 20 mg/ml.

10-methyl-9-(phenoxycarbonyl) Acridinium (trifluoromethylsulfonate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 10-methyl-9-(phenoxycarbonyl) acridinium (trifluoromethylsulfonate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 10-methyl-9-(phenoxycarbonyl) Acridinium (trifluoromethylsulfonate) has a solubility of approximately 0.15 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

10-methyl-9-(phenoxycarbonyl) Acridinium is an acridinium ester that produces fluorescent 10-methyl-9-acridone upon oxidation with hydrogen peroxide, persulfates, and other oxidants in alkaline conditions.[1,2] Acridinium salts, including 10-methyl-9-(phenoxycarbonyl) acridinium, can be used in chemiluminescence assays, enzyme, antigen, antibody, and hormone immunoassays, and assays to detect oxidants in environmental, biological, and pharmaceutical samples.[1-3]

References

1. Nakazono, M., Oshikawa, Y., Nakamura, M., *et al.* Strongly chemiluminescent acridinium esters under neutral conditions: Synthesis, properties, determination, and theoretical study. *J. Org. Chem.* **82(5)**, 2450-2461 (2017).
2. Krzymiński, K., Ożóg, A., Malecha, P., *et al.* Chemiluminogenic features of 10-methyl-9-(phenoxycarbonyl) acridinium trifluoromethanesulfonates alkyl substituted at the benzene ring in aqueous media. *J. Org. Chem.* **76(4)**, 1072-1085 (2011).
3. Krzymiński, K., Roshal, A.D., Zadykowicz, B., *et al.* Chemiluminogenic properties of 10-methyl-9-(phenoxycarbonyl)acridinium cations in organic environments. *J. Phys. Chem.* **114(39)**, 10550-10562 (2010).

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
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/16/2024

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM