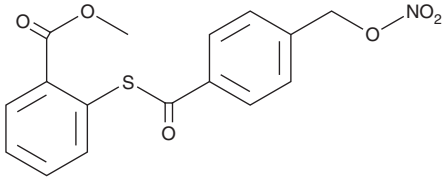
PRODUCT INFORMATION

SE 175

Item No. 82340

CAS Registry No.:	258278-64-7
Formal Name:	2-[[4-[(nitrooxy)methyl]benzoyl] thio]-benzoic acid, methyl ester
MF:	$C_{16}H_{13}NO_6S$
FW:	347.3
Purity:	≥97%
UV/Vis.:	λ_{max}: 205, 243, 278 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

SE 175 is supplied as a crystalline solid. A stock solution may be made by dissolving the SE 175 in the solvent of choice, which should be purged with an inert gas. SE 175 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SE 175 in these solvents is approximately 11, 35, and 50 mg/ml, respectively.

SE 175 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SE 175 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SE 175 has a solubility of approximately 100 µg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SE 175 is an organic nitrate compound of the same general class as nitroglycerin. These nitrate compounds can act as NO-donors *in vivo* following reductive transformation of the nitrate group to nitric oxide. The nitroxyacylated thiosalicylates, such as SE 175, were developed in an effort to facilitate this reductive process and accelerate the release of NO. SE 175 is stable in buffer or saline solution. In the intact rat, it stimulates endothelial soluble guanylate cyclase and induces aortic vasorelaxation with an EC_{50} of 20 µM, which is intermediate in potency between nitroglycerine and isosorbide dinitrate.[1]

Reference

1. Endres, S., Hacker, A., Noack, E., *et al.* NO-donors, Part 3: Nitrooxyacylated thiosalicylates and salicylates-synthesis and biological activities. *Eur. J. Med. Chem.* **34**, 895-901 (1999).

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