

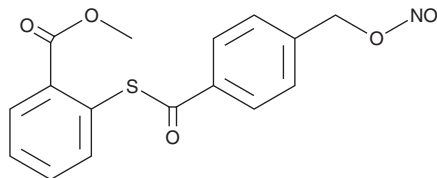
# PRODUCT INFORMATION



## 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<sub>16</sub>H<sub>13</sub>NO<sub>6</sub>S  
**FW:** 347.3  
**Purity:** ≥97%  
**UV/Vis.:** λ<sub>max</sub>: 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<sub>50</sub> of 20 µM, which is intermediate in potency between nitroglycerine and isosorbide dinitrate.<sup>1</sup>

### Reference

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

#### 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, 04/09/2024

#### 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