

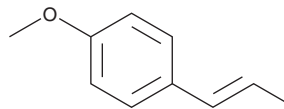
# PRODUCT INFORMATION



## (E)-Anethol

Item No. 29862

**CAS Registry No.:** 4180-23-8  
**Formal Name:** 1-methoxy-4-(1E)-1-propen-1-yl-benzene  
**Synonyms:** *trans*-Anethole, NSC 209529  
**MF:** C<sub>10</sub>H<sub>12</sub>O  
**FW:** 148.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 258 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Foeniculum vulgare* Mill



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

### Laboratory Procedures

(E)-Anethol is supplied as a solid. A stock solution may be made by dissolving the (E)-anethol in the solvent of choice, which should be purged with an inert gas. (E)-Anethol is soluble in dimethyl formamide (DMF). The solubility of (E)-anethol in DMF is approximately 15 mg/ml.

(E)-Anethol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (E)-anethol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (E)-Anethol has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

(E)-Anethol is a phenylpropanoid that has been found in *P. anisum* seed oil and has antifungal and antioxidant activity.<sup>1,2,3</sup> It is active against fermentatively growing *S. cerevisiae* under hypoxic, but not normoxic, conditions (MIC = 100 µg/ml), and against *C. parapsilosis* when used at a concentration of 15% w/w.<sup>2,3</sup> (E)-Anethol has antioxidant activity in a Trolox equivalent antioxidant capacity (TEAC) assay but does not scavenge 2,2-diphenyl-1-picrylhydrazyl (DPPH) radicals in a cell-free assay.<sup>3</sup>

### References

1. Embong, M.B. and Hadziyev, D. Essential oils from spices grown in Alberta: Anise oil (*Pimpinella anisum*). *J. Plant Sci.* **57(3)**, 681-688 (1977).
2. Fujita, K. and Kubo, I. Potentiation of fungicidal activities of *trans*-anethole against *Saccharomyces cerevisiae* under hypoxic conditions. *J. Biosci. Bioeng.* **98(6)**, 490-492 (2004).
3. Donati, M., Mondin, A., Chen, Z., *et al.* Radical scavenging and antimicrobial activities of *Croton zehntneri*, *Pterodon emarginatus* and *Schinopsis brasiliensis* essential oils and their major constituents: Estragole, *trans*-anethole, β-caryophyllene and myrcene. *Nat. Prod. Res.* **29(10)**, 939-946 (2014).

#### 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.

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