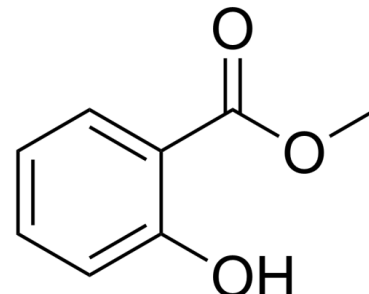


## Data Sheet

<b>Product Name:</b>	Methyl Salicylate
<b>Cat. No.:</b>	CS-B1799
<b>CAS No.:</b>	119-36-8
<b>Molecular Formula:</b>	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	152.15
<b>Target:</b>	COX
<b>Pathway:</b>	Immunology/Inflammation
<b>Solubility:</b>	Ethanol : 25 mg/mL (164.31 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Methyl Salicylate (Wintergreen oil) is a topical analgesic and anti-inflammatory agent. Also used as a pesticide, a denaturant, a fragrance ingredient, and a flavoring agent in food and tobacco products<sup>[1]</sup>. A systemic acquired resistance (SAR) signal in tobacco<sup>[2]</sup>. A topical nonsteroidal anti-inflammatory drug (NSAID). Methyl salicylate lactoside is a COX inhibitor<sup>[4]</sup>. **In Vitro:** Methyl Salicylate is a systemic acquired resistance signal in tobacco. It (0-1 mg/L) esterases activity of salicylic acid-binding protein 2 (SABP2), which converts MeSA into salicylic acid (SA), is required for SAR signal perception in systemic tissue<sup>[2]</sup>.

### References:

- [1]. Greene T, et al. A critical review of the literature to conduct a toxicity assessment for oral exposure to methyl salicylate. Crit Rev Toxicol. 2017 Feb;47(2):98-120.
- [2]. Park SW, et al. Methyl salicylate is a critical mobile signal for plant systemic acquired resistance. Science. 2007 Oct 5;318(5847):113-6.
- [3]. Lapczynski A, et al. Fragrance material review on methyl salicylate. Food Chem Toxicol. 2007;45 Suppl 1:S428-52.
- [4]. Xin W, et al. Methyl salicylate lactoside inhibits inflammatory response of fibroblast-like synoviocytes and joint destruction in collagen-induced arthritis in mice. Br J Pharmacol. 2014 Jul;171(14):3526-38.

### CAIndexNames:

Benzoic acid, 2-hydroxy-, methyl ester

### SMILES:

O=C(OC)C1=CC=CC=C1O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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