

PRODUCT INFORMATION



3-Hydroxy-4-methyl-2(5H)-thiophenone

Item No. 36290

CAS Registry No.: 34876-35-2

MF: $C_5H_6O_2S$

FW: 130.2

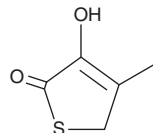
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 248 nm

Supplied as: A solid

Storage: $-20^\circ C$

Stability: ≥ 4 years



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

Laboratory Procedures

3-Hydroxy-4-methyl-2(5H)-thiophenone is supplied as a solid. A stock solution may be made by dissolving the 3-hydroxy-4-methyl-2(5H)-thiophenone in the solvent of choice, which should be purged with an inert gas. 3-Hydroxy-4-methyl-2(5H)-thiophenone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 3-hydroxy-4-methyl-2(5H)-thiophenone in ethanol and DMSO is approximately 5 mg/ml and approximately 3 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 3-hydroxy-4-methyl-2(5H)-thiophenone can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 3-hydroxy-4-methyl-2(5H)-thiophenone in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

3-Hydroxy-4-methyl-2(5H)-thiophenone is a degradation product of the cephalosporin antibiotic cefaclor (Item No. 23626).¹ It is formed from cefaclor under aqueous acidic conditions.

Reference

1. Baertschi, S.W., Dorman, D.E., Occolowitz, J.L., *et al.* Isolation and structure elucidation of the major degradation products of cefaclor formed under aqueous acidic conditions. *J. Pharm. Sci.* **86**(5), 526-539 (1997).

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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