

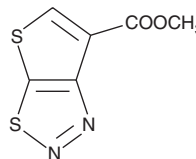
PRODUCT INFORMATION



2,3-dihydrothieno-Thiadiazole Carboxylate

Item No. 10011048

CAS Registry No.: 152467-47-5
Formal Name: methylthieno[3,2-d][1,2,3]thiadiazole-6-carboxylate
Synonym: MTCC
MF: C₆H₄N₂O₂S₂
FW: 200.2
Purity: ≥98%
UV/Vis.: λ_{max}: 237 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

MTCC is supplied as a crystalline solid. A stock solution may be made by dissolving the MTCC in the organic solvent of choice, which should be purged with an inert gas. MTCC is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MTCC in these solvents is approximately 2 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

MTCC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MTCC should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MTCC has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

1,2,3-Thiadiazoles have diverse applications in medicine and agriculture, such as bactericides, fungicides, and antiviral agents. MTCC, 100 μM, both inhibits and inactivates certain microsomal CYP450 enzymes (CYP2E1 and CYP2B4), but not others (CYP1A2), with inactivation occurring in a mechanism-based manner.¹

Reference

1. Babu, B.R. and Vaz, A.D.N. 1,2,3-thiadiazole: A novel heterocyclic heme ligand for the design of cytochrome P450 inhibitors. *Biochemistry* **36**, 7209-7216 (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.

WARRANTY AND LIMITATION OF REMEDY

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