Methyl-2-Methoxy-5-Sulfamoyl Benzoate

PRODUCT IN FOCUS

EXSYN® ESSENTIAL CHEMISTRY

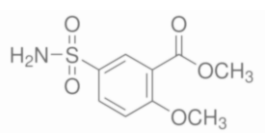
Methyl-2- Methoxy-5-Sulfamoyl Benzoate

INTRODUCTION

Methyl-2-Methoxy-5-Sulfamoyl Benzoate (MSMB) is a sulfur containing organic building block acting as a chemical intermediate. MSMB contains ester and sulfamoyl functional groups, which make it useful as a pharmaceutical and fine-chemical intermediate.
It is mainly used in pharmaceutical research and synthesis of many pharmaceutical compounds used as anticoagulants, HCV NS5B polymerase inhibitors, therapeutic drugs for treatment of neurodegenerative diseases and oral hypoglycemic agents.

Manufacture

MSMB is synthesized using qualified aromatic benzoic acid–derived starting materials, with controlled introduction of the sulfamoyl functionality, followed by purification, drying.

Synonym(s)	Benzoic acid, 5-(aminosulfonyl)-2-methoxy-, methyl ester
CAS no.	33045-52-2
EINECS no.	251-358-1
Molecular formula	$C_9H_{11}NO_5S$
Molecular weight	245.25
Structure	

Applications

This compound is mainly used as a specialty intermediate in pharmaceutical and fine-chemical research. Typical applications include:

- **API & Advanced Intermediate Synthesis**
  - It serves as a precursor in the production of diverse therapeutic compounds, including: Diuretics: Anti-inflammatory agents, Anticoagulants, HCV NS5B Polymerase inhibitors, oral hypoglycemic agents.
  - Precursor for designing inhibitors for treating neurological disorders.
- **Fine Chemicals & Custom Synthesis**
  - As a vital intermediate in the synthesis of specialty chemicals.
- **Pharmaceutical R&D**
  - Intermediate for sulfonamide-containing drugs, as the sulfamoyl group is common in many APIs.
  - Serves as a building block in medicinal chemistry for SAR (structure–activity relationship) studies.
- **Process Development**
  - Employed in route scouting and scale-up studies for sulfonamide-based molecules.
  - Helps evaluate crystallization behavior, impurity profiling, and stability.
- **Research & Analytical Use**
  - Reference or starting material in academic and industrial research involving sulfonamide chemistry.
  - Used to study ester–amide transformations, substitution reactions, and metabolic stability.

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SPECIFICATIONS

Test	Unit	Specification
Appearance	-	White to off white powder
Moisture Content	%	NMT 0.50
Sulphated Ash	%	NMT 0.50
Melting Point	°C	172 - 178
Related Substances		
2- Methoxy-5-Sulfamoyl Benzoic Acid	%	NMT 0.20
2- Methoxy-5-Sulfamoyl Benzamide	%	NMT 0.50
Any other Impurity	%	NMT 0.50
Total Impurities	%	NMT 1.0
Purity (By HPLC)	%	NLT 99.00
Purity (By Titrimertry)	%	98.0 - 101.0

STORAGE & PRECAUTION
Store at ambient conditions

PACKING
25 kg drum

REACH Status
Registered

ExSyn offers Methyl-2-Methoxy-5-Sulfamoyl Benzoate on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.

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