

Certificate of Analysis

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Product Name: Lamotrigine isethionate

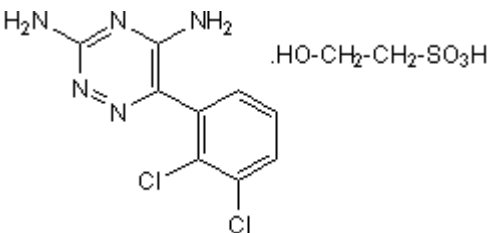
Catalog No.: 2289

Batch No.: 4

CAS Number: 113170-86-8

IUPAC Name: 6-(2,3-Dichlorophenyl)-1,2,4-triazine-3,5-diamine isethionate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_9H_7Cl_2N_5 \cdot C_2H_6O_4S$
Batch Molecular Weight:	382.22
Physical Appearance:	White solid
Solubility:	water to 100 mM with gentle warming DMSO to 100 mM
Storage:	Desiccate at RT
Batch Molecular Structure:	

2. ANALYTICAL DATA

HPLC:	Shows 99.9% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

Microanalysis:	Carbon Hydrogen Nitrogen		
Theoretical	34.57	3.43	18.32
Found	34.39	3.45	18.11

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 6-(2,3-Dichlorophenyl)-1,2,4-triazine-3,5-diamine isethionate

Description:

Water-soluble salt of lamotrigine (Cat. No. 1611). Displays anticonvulsant effects and inhibits glutamate release, possibly through inhibition of Na⁺, K⁺ and Ca²⁺ currents.

Physical and Chemical Properties:

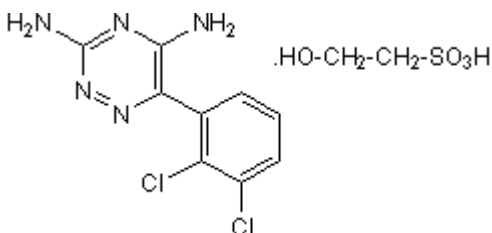
Batch Molecular Formula: C₉H₇Cl₂N₅.C₂H₆O₄S

Batch Molecular Weight: 382.22

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM with gentle warming
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Leach et al (1991) Neurochemical and behavioral aspects of lamotrigine. *Epilepsia* **32** S4. PMID: 1685439.

Smith and Meldrum (1995) Cardioprotective effect of lamotrigine after focal ischemia in rats. *Stroke* **26** 117. PMID: 7839380.

Zona and Avoli (1997) Lamotrigine reduces voltage-gated sodium currents in rat central neurons in culture. *Epilepsia* **38** 522. PMID: 9184596.

Grunze et al (1998) Modulation of calcium and potassium currents by lamotrigine. *Neuropsychobiology* **38** 131. PMID: 9778600.

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