1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \( \text{C}_9\text{H}_7\text{Cl}_2\text{N}_5 \)
   Batch Molecular Weight: 256.09
   Physical Appearance: White solid
   Solubility: ethanol to 10 mM
               DMSO to 100 mM
   Storage: Store at RT
   Batch Molecular Structure:

2. ANALYTICAL DATA

   TLC: \( R_f = 0.8 \text{ (Dichloromethane:Methanol [4:1])} \)
   Melting Point: At 212°C
   HPLC: Shows 100% purity
   \(^1\text{H NMR:}\) Consistent with structure
   Microanalysis:
      Carbon Hydrogen Nitrogen
      Theoretical 42.21 2.75 27.33
      Found 42.08 2.68 27.37
Product Name: Lamotrigine
CAS Number: 84057-84-1
IUPAC Name: 6-(2,3-Dichlorophenyl)-1,2,4-triazine-3,5-diamine

Description:
Anticonvulsant. Inhibits glutamate release, possibly through inhibition of Na\(^+\), K\(^+\) and Ca\(^{2+}\) currents. Also blocks heterologously expressed and native \(\alpha_4\beta_2\) nAChRs with a similar affinity to Na\(^+\) channels. Water-soluble Salt also available.

Physical and Chemical Properties:
Batch Molecular Formula: C\(_9\)H\(_7\)Cl\(_2\)N\(_5\)
Batch Molecular Weight: 256.09
Physical Appearance: White solid
Minimum Purity: >99%

Solubility & Usage Info:
- ethanol to 10 mM
- 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).

Licensing Information:
Sold for research purposes under agreement from GlaxoSmithKline

References: