

## Certificate of Analysis

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**Product Name:** Mexiletine hydrochloride

**Catalog No.:** 2596

**Batch No.:** 1

CAS Number: 5370-01-4

EC Number: 226-362-1

IUPAC Name: 1-(2,6-Dimethylphenoxy)-2-propanamine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>11</sub>H<sub>17</sub>NO.HCl

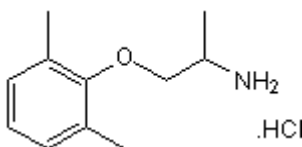
**Batch Molecular Weight:** 215.72

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 100 mM  
ethanol to 100 mM

**Storage:** Desiccate at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.25	8.41	6.49
Found	61.08	8.51	6.38

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

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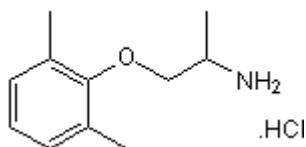
**Description:**

Use-dependent sodium channel blocker (IC<sub>50</sub> values are 75.3 and 23.6 μM for tonic and use-dependent block respectively). Class Ib antiarrhythmic, neuroprotective and antimyotonic agent.

**Physical and Chemical Properties:**Batch Molecular Formula: C<sub>11</sub>H<sub>17</sub>NO.HCl

Batch Molecular Weight: 215.72

Physical Appearance: White solid

**Minimum Purity:** >99%**Batch Molecular Structure:****Storage:** Desiccate at +4°C**Solubility & Usage Info:**

water to 100 mM  
DMSO to 100 mM  
ethanol 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:**

**Franchini et al** (2003) Optically active mexiletine analogues as stereoselective blockers of voltage-gated Na<sup>+</sup> channels. *J.Med.Chem.* **46** 5238. PMID: 14613326.

**Ates et al** (2006) Neuroprotective effect of mexiletine in the central nervous system of diabetic rats. *Mol.Cell.Biochem.* **286** 125. PMID: 16541198.

**Bellis et al** (2006) Evaluation of the pharmacological activity of the major mexiletine metabolites on skeletal muscle sodium currents. *Br.J.Pharmacol.* **149** 300. PMID: 16921388.

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