1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \( \text{C}_{12}\text{H}_{14}\text{N}_{2}\text{O}_{2} \)

   Batch Molecular Weight: 218.25

   Physical Appearance: White solid

   Solubility: DMSO to 20 mM

   Storage: Store at +4°C

   Batch Molecular Structure:

2. ANALYTICAL DATA

   HPLC: Shows 98.2% purity

   \(^1\text{H NMR:}\) Consistent with structure

   Mass Spectrum: Consistent with structure

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

**CAS Number:** 50-12-4

**IUPAC Name:** (±)-5-Ethyl-3-methyl-5-phenyl-2,4-imidazolidinedione

**Description:**
CYP2C19 and CYP2B6 substrate. Anticonvulsant.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{12}H_{14}N_{2}O_{2}
- **Batch Molecular Weight:** 218.25
- **Physical Appearance:** White solid
- **Minimum Purity:** >98%

**Batch Molecular Structure:**

![Molecular Structure](image)

**Storage:** Store at +4°C

**Solubility & Usage Info:**
- DMSO to 20 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:**