1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** C_{21}H_{25}NO_3.HCl.1¾H_2O
- **Batch Molecular Weight:** 407.41
- **Physical Appearance:** White solid
- **Solubility:**
  - water to 100 mM
  - DMSO to 100 mM
- **Storage:** Desiccate at RT
- **Batch Molecular Structure:**

2. ANALYTICAL DATA

- **HPLC:** Shows 99.0% purity
- **¹H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - Carbon Hydrogen Nitrogen
  - Theoretical: 61.91 7.3 3.44
  - Found: 62.13 7.24 3.48

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

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Product Name: Nalmefene hydrochloride
Catalog No.: 4085  
Batch No.: 2

**CAS Number:** 58895-64-0

**IUPAC Name:** (5α)-17-(Cyclopropylmethyl)-4,5-epoxy-6-methylenemorphinan-3,14-diol hydrochloride

**Description:**
Opioid receptor antagonist; displays a longer half life than Naloxone. Exhibits neuroprotective effects after traumatic brain injury in the rat. Deuterated analog also available.

**Physical and Chemical Properties:**

- **Batch Molecular Formula:** C<sub>21</sub>H<sub>28</sub>NO<sub>3</sub>·HCl·1¾H<sub>2</sub>O
- **Batch Molecular Weight:** 407.41
- **Physical Appearance:** White solid
- **Minimum Purity:** >99%

**Solubility & Usage Info:**
- Water to 100 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).

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:**