1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( \text{C}_{29}\text{H}_{33}\text{ClN}_{2}\text{O}_{2}.\text{HCl} \)
- **Batch Molecular Weight:** 513.51
- **Physical Appearance:** White solid
- **Solubility:**
  - Ethanol to 20 mM
  - DMSO to 20 mM
- **Storage:** Store at RT
- **Batch Molecular Structure:**

2. ANALYTICAL DATA

- **HPLC:**
  - Shows 99.8% purity
- **\(^1\)H NMR:**
  - Consistent with structure
- **Mass Spectrum:**
  - Consistent with structure
- **Microanalysis:**
  - **Theoretical**
    - Carbon: 67.83
    - Hydrogen: 6.67
    - Nitrogen: 5.45
  - **Found**
    - Carbon: 67.57
    - Hydrogen: 6.74
    - Nitrogen: 5.55
Product Name: Loperamide hydrochloride  
Catalog No.: 0840  
Batch No.: 7

CAS Number: 34552-83-5  
EC Number: 252-082-4

IUPAC Name: 4-(4-Chlorophenyl)-4-hydroxy-N,N-dimethyl-α,α-diphenyl-1-piperidinebutanamide hydrochloride

Description:
High affinity μ-opioid receptor agonist with peripheral selectivity (Kᵢ values are 2, 48 and 1156 nM for μ-, δ- and κ-opioid receptors respectively). Antidiarrhoeal and antihyperalgesic agent. Also a Ca²⁺ channel blocker; at low micromolar concentrations it blocks broad spectrum neuronal HVA Ca²⁺ channels and at higher concentrations it reduces Ca²⁺ flux through NMDA receptor operated channels.

Physical and Chemical Properties:
Batch Molecular Formula: C₂₉H₂₅ClN₂O₂.HCl  
Batch Molecular Weight: 513.51

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:
- ethanol to 20 mM
- 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: