1. PHYSICAL AND CHEMICAL PROPERTIES

- Batch Molecular Formula: C_{13}H_{12}N_{2}O_{5}S
- Batch Molecular Weight: 308.31
- Physical Appearance: Yellow solid
- Solubility: DMSO to 100 mM, ethanol to 25 mM
- Storage: Store at +4°C

2. ANALYTICAL DATA

- HPLC: Shows >99.9% purity
- ^1H NMR: Consistent with structure
- Mass Spectrum: Consistent with structure
- Microanalysis:
  - Carbon: Theoretical 50.64, Found 50.62
  - Hydrogen: Theoretical 3.92, Found 3.88
Product Name: Nimesulide
CAS Number: 51803-78-2
IUPAC Name: N-(4-Nitro-2-phenoxyphenyl)methanesulfonamide

**Description:**
Selective, orally active cyclooxygenase-2 (COX-2) inhibitor. Produces potent analgesic, anti-inflammatory and antipyretic activities in vivo. Reported to produce fewer gastrointestinal side effects than standard NSAIDs.

**Physical and Chemical Properties:**
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- Physical Appearance: Yellow solid
- Minimum Purity: >99%

**Storage:** Store at +4°C

**Solubility & Usage Info:**
- DMSO to 100 mM
- Ethanol to 25 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:**