Product Name: Bendamustine hydrochloride  
Catalog No.: 3681  
Batch No.: 1  
CAS Number: 3543-75-7  
IUPAC Name: 5-[Bis(2-chloroethyl)amino]-1-methyl-1H-benzimidazole-2-butanoic acid hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( \text{C}_{16}\text{H}_{21}\text{Cl}_{2}\text{N}_{3}\text{O}_{2} \cdot \text{HCl} \cdot \frac{1}{2}\text{H}_{2}\text{O} \)
- **Batch Molecular Weight:** 421.74
- **Physical Appearance:** White solid
- **Solubility:**
  - water to 25 mM
  - DMSO to 100 mM
  - ethanol to 100 mM
- **Storage:** Desiccate at RT
- **Batch Molecular Structure:**

![Molecular Structure](image)

2. ANALYTICAL DATA

- **HPLC:** Shows 98.5% purity
- **\(^1\text{H NMR:}\)** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - Theoretical: 45.57\(\text{C}\), 5.97\(\text{H}\), 9.96\(\text{N}\)
  - Found: 45.6\(\text{C}\), 5.67\(\text{H}\), 10.02\(\text{N}\)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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Description:
Cytostatic agent that displays activity in non-Hodgkin's lymphomas. Exhibits bifunctionality; combines DNA alkylating properties with those of purine analogs.

Physical and Chemical Properties:
Batch Molecular Formula: C_{10}H_{15}Cl_{2}N_{3}O_{2}·HCl·1½H₂O
Batch Molecular Weight: 421.74
Physical Appearance: White solid
Minimum Purity: >98%

Storage: Desiccate at RT

Solubility & Usage Info:
- water to 25 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: