Product Name: Netilmicin sulfate
Product Number: N004
CAS Number: 56391-57-2
Molecular Formula: C_{21}H_{41}N_{5}O_{7} \cdot 2.5 H_{2}SO_{4}
Molecular Weight: 720.78
Form: Powder
Appearance: White or almost white powder
Source: Semi-synthetic
pH: 3.5-5.5
Optical Rotation: +88° to +96°
Storage Conditions: 2-8°C
Description: Netilmicin sulfate is an aminoglycoside antibiotic with a similar mechanism to gentamicin. Netilmicin is highly soluble in aqueous solution at >50 mg/mL.
Mechanism of Action: Aminoglycosides target the 30S ribosomal subunit resulting in an inability to read mRNA ultimately producing a faulty or nonexistent protein.
Spectrum: Netilmicin sulfate is a broad spectrum antibiotic commonly used against bacteria responsible for respiratory tract infections and skin infections.
Microbiology Applications: Netilmicin sulfate is commonly used in clinical in vitro microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive and gram negative microbial isolates. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:

- *Pseudomonas aeruginosa* 0.5 µg/mL - 1 µg/mL
- *Staphylococcus aureus* 0.008 µg/mL - 4 µg/mL
- For a complete list of netilmicin MIC values, click here.