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TECHNICAL DATA SHEET (TDS)

Product: Cefotaxime Sodium Salt

Issue Date: 01 March 2026

Catalogue Number: ASA-2006

CAS Number: 64485-93-4

Molecular Formula: C₁₆H₁₇N₅O₇S₂·Na

Molecular Weight: 478.46 g/mol

HS / AHECC Code: 2941.90.00 – Antibiotics

1. Product Description

Cefotaxime Sodium Salt is a third-generation β -lactam cephalosporin antibiotic supplied as a high-purity laboratory-grade powder. It is widely used in microbiology, molecular biology, and plant tissue culture applications.

2. Mechanism of Action

Cefotaxime inhibits bacterial cell wall synthesis by binding to penicillin-binding proteins (PBPs), disrupting peptidoglycan cross-linking and resulting in bactericidal activity.

3. Typical Specifications

Appearance: White to off-white crystalline powder

Purity (HPLC): $\geq 98\%$

Water Content: $\leq 5.0\%$

pH (1% solution): 4.5 – 6.5

Solubility: Freely soluble in water

Residue on Ignition: $\leq 1.0\%$

4. Applications

- Plant tissue culture (Agrobacterium elimination)
- Microbiological selective media
- β -lactam resistance studies

- Molecular biology workflows
- Antimicrobial research

5. Storage & Stability

Store at 2–8 °C in a tightly sealed container. Protect from moisture and light.

6. Intended Use

For laboratory research use only. Not for human or veterinary therapeutic use.