CERTIFICATE OF ANALYSIS

1. Identification

Catalogue Number: S699185

Product: Sulbactam Sodium Salt

Structure:

CAS Number: 69388-84-7

Synonym: (2S,5R)-3,3-Dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic Acid 4,4-Dioxide Sodium Salt; CP 45899-2; Penicillanic Acid 1,1-Dioxide Sodium Salt; Sodium 1,1-Dioxypenicillanate; Sodium Penicillanate 1,1-Dioxide; Sodium Sulbactam; Sulbactam Sodium; Sulbactam Sodium Salt; Unasyn IM;
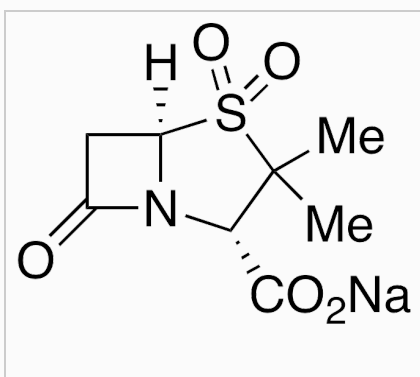
Molecular Formula:

$C H NNaO S$

Molecular weight:

255.22

Source of Product:

N/A

Solubility:

Methanol (Slightly), Water (Slightly)

Lot Number: 711897515-1-1

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: -20°C, Inert atmosphere

2. Warning

Warning 1:	Warning 2:	Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Pale Yellow Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 37.61, %H: 3.93, %N: 5.67
HPLC Purity	Report Result	99.02% (ELSD)
MS	Conforms to Structure	Conforms
Sodium Content	Report Result	8.6%
Specific Rotation	Report Result	+236.6° (c = 0.2, Water)

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Henry Tieu	Toni Rantanen	Christina Gouliaras	11/22/2023	11/20/2027