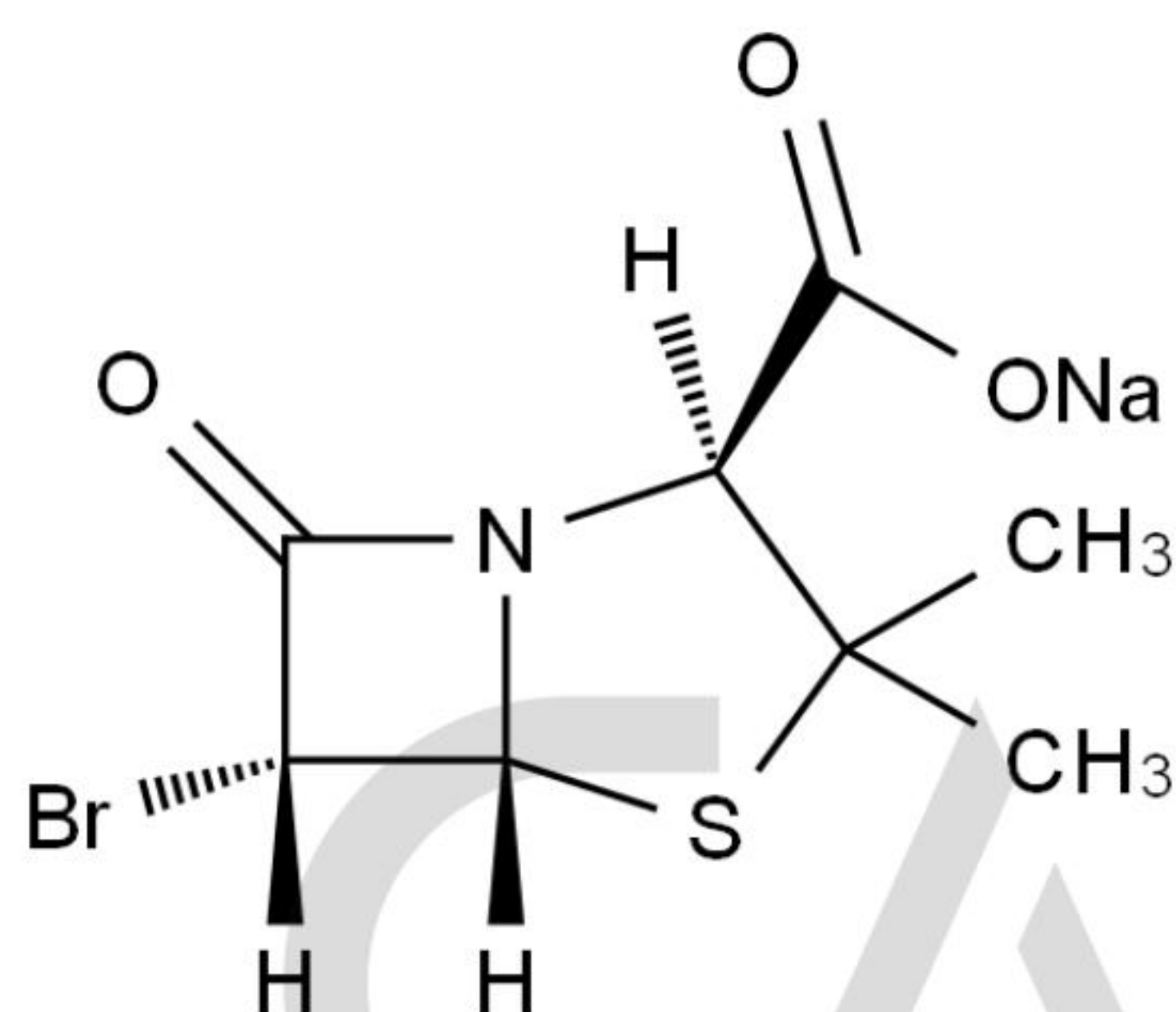


# Certificate of Analysis

## Reference Material

|                           |                                                               |                          |                                           |
|---------------------------|---------------------------------------------------------------|--------------------------|-------------------------------------------|
| <b>Product Name:</b>      | Sulbactam EP Impurity D(6-Bromopenicillanic Acid Sodium Salt) | <b>Catalogue Number:</b> | C4X-17568                                 |
| <b>Chemical Name:</b>     | N/A                                                           | <b>Lot Number:</b>       | C4X-17568-1703                            |
| <b>CAS Number:</b>        | 73335-78-1                                                    | <b>Expiry Date:</b>      | Dec 31, 2026                              |
| <b>Molecular Formula:</b> | C <sub>8</sub> H <sub>9</sub> BrNNaO <sub>3</sub> S           | <b>Storage:</b>          | 2°C ~ 8°C Protected from light and Sealed |
| <b>Molecular Weight:</b>  | 302.12                                                        |                          |                                           |

Chemical Structure:



| Test Items     | Method            | Results            |
|----------------|-------------------|--------------------|
| Appearance     | Visual inspection | Light Yellow Solid |
| Identification | HRMS&HNMR         | Confirmed          |
| Purity         | HPLC              | 93.59%             |
| Loss On Drying | TGA               | 0.65%              |
| Assay          |                   | 93.0%              |

## Comment:

The calculation of the 100% method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Loss On Drying) \* Purity HPLC (%) / 100%

Loss On Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

*Hinlam*

Reviewed by:

*Cady*

Aporoved by General manager:

*David*

Date: Feb 09, 2022

Date: Aug 09, 2022

Date: Aug 09, 2022

