

Certificate of Analysis

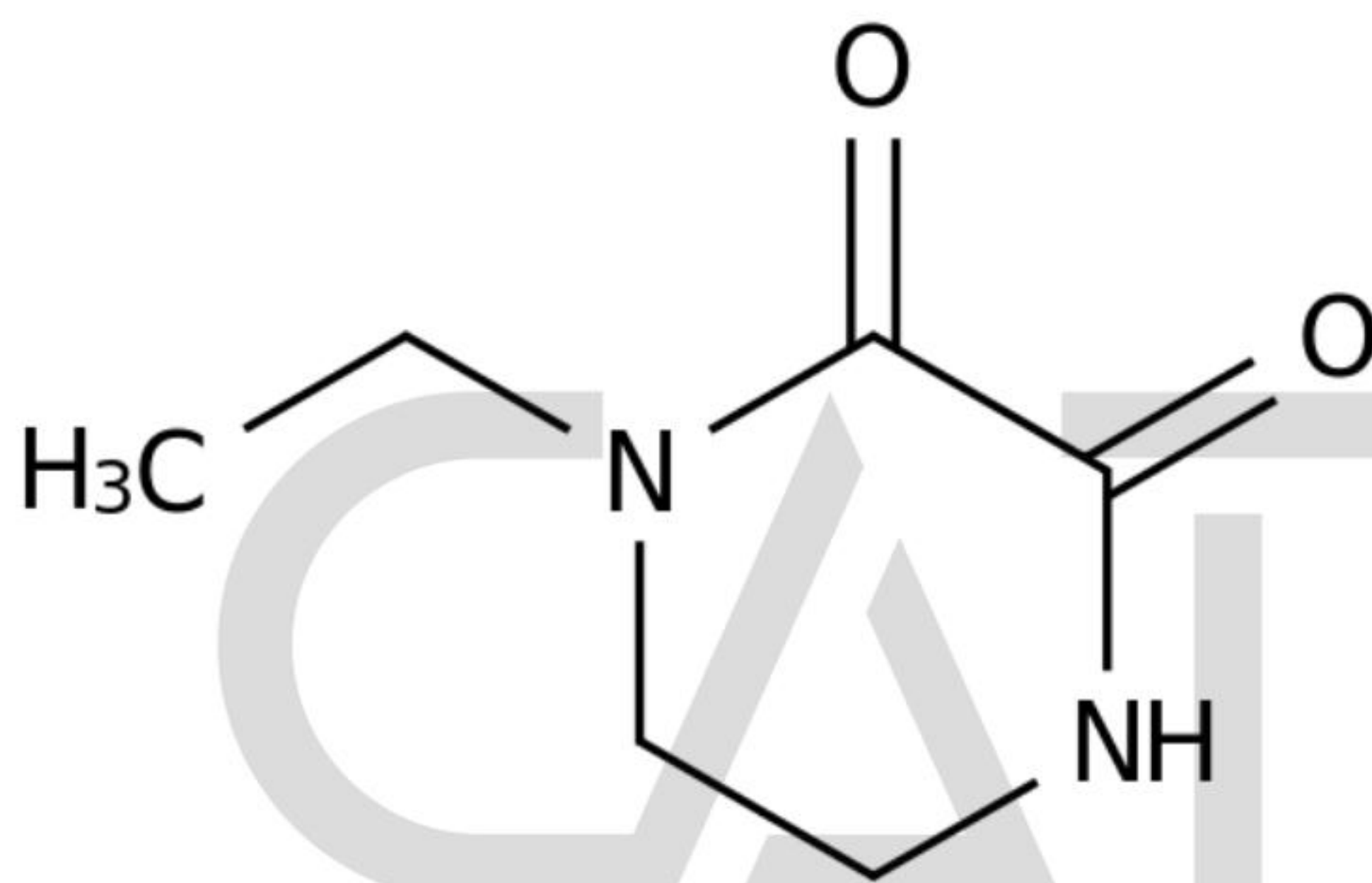
Reference Material & Standard

Product Name:	Piperacillin EP Impurity E	Catalogue Number:	C4X-173259
Synonyms:	N-Ethyl-2,3-dioxopiperazine	Lot Number:	0518-RH-0049
CAS Number:	59702-31-7	Expiry Date:	May 17, 2030
Molecular Formula:	C ₆ H ₁₀ N ₂ O ₂	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	142.16	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	96.5%
Assay	qNMR	95.5%

Signature:

Prepared by:

Koi

Reviewed by:

Lisa

Approved by General Manager:

David

Date: May 18, 2026

Date: May 19, 2026

Date: May 19, 2026



Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

Web: <https://www.cato-chem.com>

Page 1 of 7



Official
WeChat