

CERTIFICATE OF ANALYSIS

1. Identification

Catalogue Number

Lot Number

2-EDT-72-1

Product Name

1-Ethyl-2,3-dioxopiperazine

<u>Structure</u>

N O

Synonyms

E917360

1-Ethyl-2,3-piperazinedione; N-Ethylpiperazine-2,3-dione; T 1982C; Piperacillin

EP Impurity E;

<u>CAS Number</u> <u>Solubility</u>

59702-31-7 DMSO (Slightly), Methanol (Slightly)

Shipping Condition

This Product Is Stable To Be Shipped At Room

Long Term Storage Conditions

Temperature

<u>Molecular Formula</u>

Source of Product

N/A

4°C

Molecular Weight Purity

142.16 >95%

2. Warnings

Tests

Appearance

 $C_6H_{10}N_2O_2$

Not Determined

3. Analytical Information

Specifications Results

White to Off-White Solid White to Off-White Solid

NMR Conforms to Structure Conforms

HPLC Purity >95% 99.89% (220 nm)

MS Conforms to Structure Conforms

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

| September | Part |

Jingning Zhou Toni Rantanen Chanell Chu

Product Quality Specialist Manager, Quality Assurance Quality Assurance Associate