

# Certificate of Analysis

## 5-Butylbenzene-1,3-diol

Product No.: BA72

**Lot No.:** BA72-20241116

**Description of CRM:** 5-Butylbenzene-1,3-diol

Chemical formula:  $C_{10}H_{14}O_2$ 

**CAS No.:** 46113-76-2

**Mfg. Date:** Nov,16, 2024

Retest Date: November 2025

**Storage:** Store unopened in cold (2 °C to -8 °C).

**Quantity:** 1.6Kg

**Appearance:** Light yellow solid

**Packaging:** Plastic bottle

Details on starting Each raw material utilized has been identified and thoroughly characterized

through.

Materials:

The use of multiple analytical techniques and is assigned a Mass Balance Purity

Factor. Spectral data is provided on subsequent pages of this COA.

Certificate of Origin:

Blazer Corporation certifies no material of animal origin (BSE/TSE) was used in

the preparation of this product .

Country of Origin: China

Quality Assurance Manager

Nov 16,2024

Issue Date





Material Name:

#### Analyte Certification - Mass Balance Purity Factor

Each analyte is thoroughly identified and characterized using an orthogonal approach. A mass balance purity factor is assigned incorporating chromatographic purity and residual impurities. The mass balance purity factor is utilized to calculate the weighing adjustment necessary to ensure accuracy of the solution standard concentration.

**Chemical Formula:** C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>

5-Butylbenzene-1,3-diol

**CAS Number:** 46113-76-2

Material Lot: BA72-20241116 Molecular Weight: 166.22

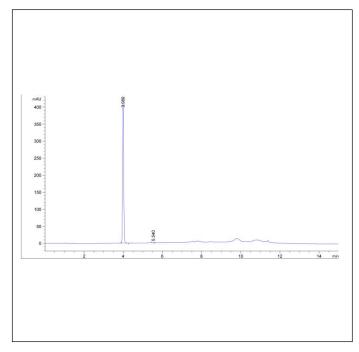
Material Characterization Summary **Analytical Test Stanard** Results ≥98% 99.69% Chromatographic Purity by HPLC/UV Analysis Identity by LC/MS Analysis Consistent with Structure Consistent with Structure Consistent with Structure Consistent with Structure Identity by <sup>1</sup> H-NMR Analysis Residual Water Analysis by Karl Fischer Coulometry 1% 0.1% Mass Balance Purity Factor 99.69%

- The chromatographic purity is calculated as the average of two independently performed analyses utilizing two different methods. Acceptance criteria requires the purity values to be within 0.5% of each other.
- The chromatographic purity value is used to calculate the Mass Balance Purity Factor.
- Mass Balance Purity Factor = [(100 wt% residual solvent wt% residual water wt% residual inorganics)xChromatographic Purity/100].
- Mass Balance Purity Factor does not include adjustment for chiral and/or isotopic purity.



### Spectral and Physical Date

## **HPLC/UV**



Column: Ascentis Express C18, 2.7 µm, 3.0 x 100 mm

Mobile Phase: A: Acetonitrile B: 0. 1% Phosphoric acid in Water

**Gradient:** % A % B Time (min) 0.0 40 60 5.0 70 30 10.0 90 10 15.0 90 10

95

40

40

5

60

60

25.0

25.1

27.0

Flow Rate: 0.8 mL/min Wavelength: 220 nm

**Sample Name** BA72-20241116 **Acquired:** Nov.16, 2024

Peak #	Ret Time	Area %	
1	3.989	99.6913	
2	5.540	0.3087	



#### <sup>1</sup> H NMR

Instrument: JEOL ECZ400S
Solvent: Choloform- D

