



## CERTIFICATE OF ANALYSIS

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### 1. Identification

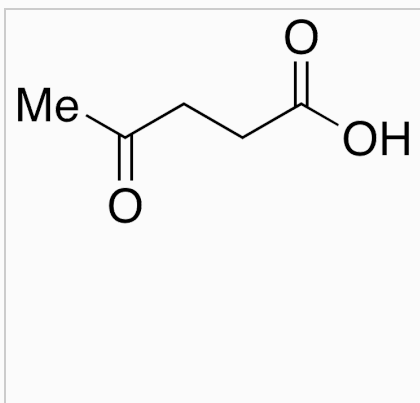
**Catalogue Number:** L379500

**CAS Number:** 123-76-2

**Product:** Levulinic Acid

**Synonym:** 3-Acetylpropionic Acid; 3-Oxobutanecarboxylic Acid; 4-Ketovaleric Acid; 4-Oxopentanoic Acid; 4-Oxovaleric Acid; Laevulinic Acid; Levulic Acid; NSC 3716;  $\beta$ -Acetylpropionic Acid;  $\gamma$ -Ketovaleric Acid

**Structure:**



**Molecular Formula:**

C<sub>5</sub>H<sub>8</sub>O<sub>3</sub>

**Molecular weight:**

116.12

**Source of Product:**

N/A

**Solubility:**

Acidic Methanol (Slightly),  
Chloroform (Sparingly),  
Methanol (Slightly)

**Lot Number:** 22-XJZ-104-1

**Purity:** 98%

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

**Storage Condition:** 4°C

### 2. Warning

**Warning 1:**

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Colourless to Pale Beige Oil to Low-Melting Solid	Clear Colourless Oil
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 50.14, %H: 7.21
GC	Report Result	99.33%
Water Content	Report Result	~3.1% based on Elemental Analysis

**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  $\pm 2\%$ . 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
Swathi Reddy	Toni Rantanen	Chanell Chu	6/17/2022	6/15/2026
				