



## Unilong Industry Co., Ltd

Add: No.8 Bldg Shuntai, No.2000 Shunhua Rd, High-Tech Zone, Jinan City, Shandong Province, China  
Contact: +86-15668417750 Website: [www.unilongindustry.com](http://www.unilongindustry.com)

### CERTIFICATE OF ANALYSIS

<b>Product Name:</b>	gamma-Valerolactone	<b>Batch No.</b>	JL20211025
<b>CAS</b>	108-29-2	<b>MF Date</b>	OCT.25,2021
<b>Packing</b>	25kg/drum	<b>Analysis Date</b>	OCT.25,2021
<b>Quantity</b>	5MT	<b>Expiry Date</b>	OCT.24,2023
<b>Item</b>	<b>Standard</b>	<b>Result</b>	
<b>Appearance</b>	colourless liquid	colourless liquid	
<b>Odour</b>	Coconut and vanillin aromas, warm and sweet herbal flavor	Coconut and vanillin aromas, warm and sweet herbal flavor	
<b>Content (by GC)</b>	≥95.0%	99.97%	
<b>Acid value (mgKOH/g)</b>	-	0.25	
<b>Refractive Index (<math>n_D^{20}</math>)</b>	-	1.4330	
<b>Specific gravity (<math>D_{25}^{25}</math>)</b>	-	1.0516	
<b>Conclusion</b>	Qualified		

**Analyst:** Wen Qian

**Quality Assurance Officer:** Zhan Peng