

## Certificate of Analysis

Date of Testing: 2024-08-16 10:30:44  
Date of Next Testing: 2028-08-15 10:30:44  
Product Name:  **$\gamma$ -Valerolactone**  
CAS Number: 108-29-2  
Specifications & Purity: 98%  
Lot #: H2408614  
SKU #: **V106294**  
Version: **0**  
Analysis #: **393380**

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.431-1.434	1.43
Purity(GC)	98-100 (%)	99.76 %
Density (20°C)	1.053-1.058	1.05
Appearance (V106294)	Colorless to light yellow liquid	Colorless to light yellow liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager