

## Certificate of Analysis

Date of Testing: 2022-07-05 15:20:54  
Date of Next Testing: 2025-07-04 15:20:54  
Product Name: **2-Keto-D-gluconic acid hemicalcium salt hydrate**  
CAS Number: 1040352-40-6  
Specifications & Purity: 98%  
Lot #: G2201288  
SKU #: **K192889**  
**Analysis: 093367**  
Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Water by Karl Fischer	0-14 (%)	2.64 %
Specific Rotation $[\alpha]_{20/D}(c=2 \text{ in H}_2\text{O})$	-72--68 (°)	-68.44 °
Purity(as Ca)	97.5-102.5 (%)	97.70 %
Appearance (K192889)	white to off-white crystalline powder	white to off-white crystalline powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager