

## Certificate of Analysis

Date of Testing: 2023-09-21 10:54:52  
Date of Next Testing: 2027-09-20 10:54:52  
Product Name: **D(+)-Raffinose pentahydrate**  
CAS Number: 17629-30-0  
Specifications & Purity: 99%  
Lot #: I2318029  
SKU #: **R111688**  
**Analysis:** **271594**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Water by Karl Fischer	14-16 (%)	14.19%
Melting point	78-82 (°C)	81.88000 °C
Specific Rotation [α] <sub>20</sub> /D(c=10 in H <sub>2</sub> O)	100-110 (°)	100.20 °
Purity(HPLC)	99-100 (%)	99.68300%
Appearance (R111688)	white powder	White powder
Solubility,50mg/ml water	Clear colorless	Clear Colorless
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager