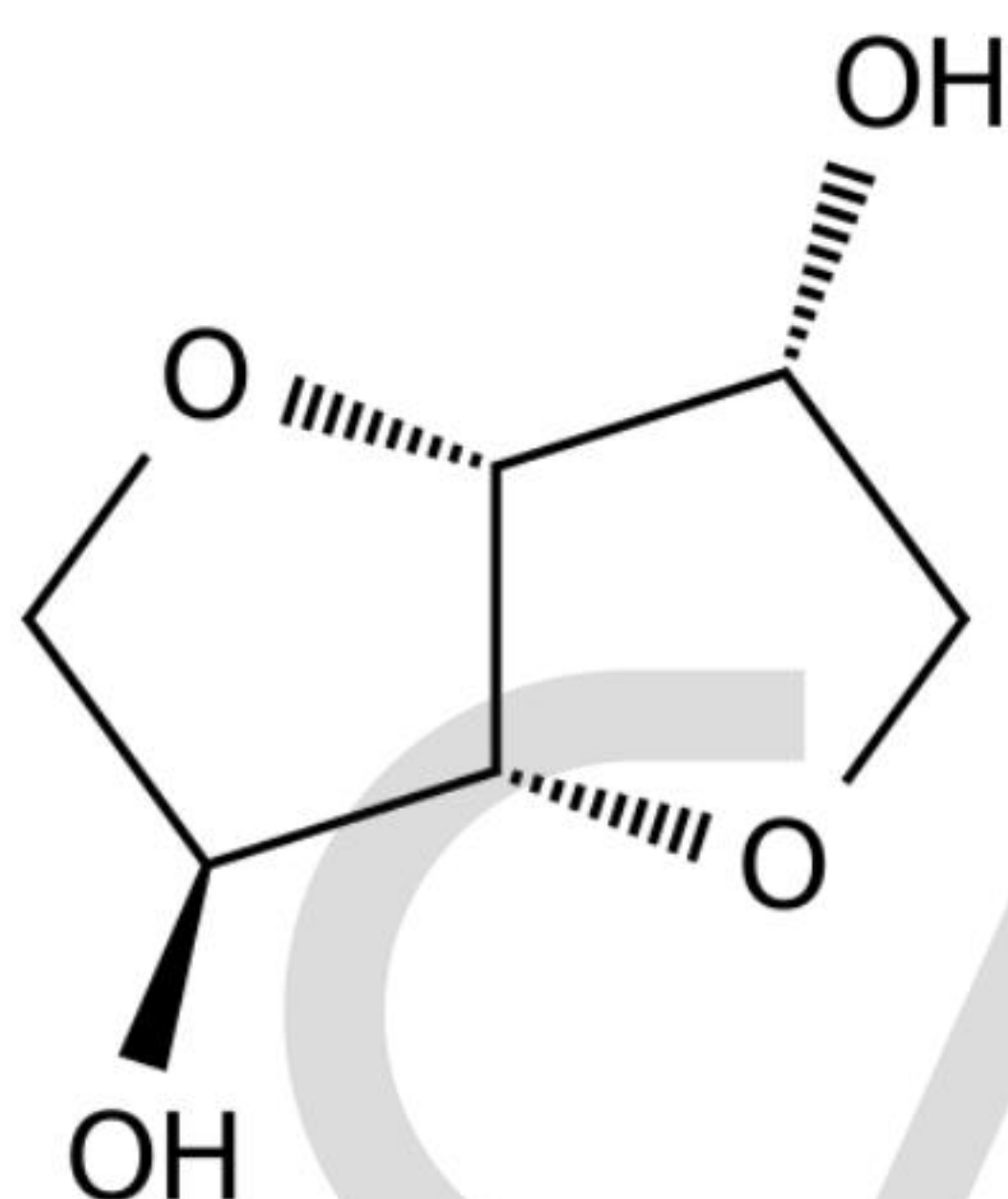


# Certificate of Analysis

## Reference Material & Standard

|                    |                                               |                   |                                                                                     |
|--------------------|-----------------------------------------------|-------------------|-------------------------------------------------------------------------------------|
| Product Name:      | Isosorbide                                    | Catalogue Number: | CCFD201557                                                                          |
| Synonyms:          | N/A                                           | Lot Number:       | 0430-RF-0056                                                                        |
| CAS Number:        | 652-67-5                                      | Expiry Date:      | May 09, 2027                                                                        |
| Molecular Formula: | C <sub>6</sub> H <sub>10</sub> O <sub>4</sub> | Storage:          | 2°C ~ 8°C Protected from light and Sealed                                           |
| Molecular Weight:  | 146.14                                        | Warning:          |  |

Chemical Structure:



| Test Items     | Method            | Results         |
|----------------|-------------------|-----------------|
| Appearance     | Visual inspection | Off-White Solid |
| Identification | LCMS&HNMR         | Confirmed       |
| Purity         | GC                | 99.8%           |
| Assay          | qNMR              | 98.8%           |
| Uncertainty    |                   | ±0.2%           |

## Comment:

1. Assay was determined by quantitative <sup>1</sup>H-NMR.  
Catalogue Number has been changed from "C3D-2131" to "CCFD201557". Therefore some of the graphs shown below were named by "C3D-2131".
2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

## Signature:

Prepared by:

*Lisa*

Reviewed by:

*Hin Lam*

Approved by General Manager:

*David*

Date: Jun 19, 2025

Date: Jun 19, 2025

Date: Jun 19, 2025

