

Shanghai Aladdin Biochemical Technology Co., LTD  
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

## Certificate of Analysis

Date of Testing: 2025-10-11 14:05:07  
Date of Next Testing: 2029-10-10 14:05:07  
Product Name: (2-Hydroxypropyl)- $\gamma$ -cyclodextrin  
CAS Number: 128446-34-4  
Specifications & Purity: average Mw ~1,580  
Lot #: L2115384  
SKU #: H102030  
Version: 0  
Analysis #: 579406

| Parameter                          | Limit Values                                  | Result                                        |
|------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Purity(Cyclodextrine Content Cal.) | 98-100 (%)                                    | 98.66000 %                                    |
| Ignition Residue                   | 0-0.1 (%)                                     | 0.00000 %                                     |
| PH(2% in Water)                    | 6-9                                           | 7.50000                                       |
| Propylene glycol                   | 0-0.1 (%)                                     | 0.00460 %                                     |
| Unsubstituted Cyclodextrine        | 0-1.5 (%)                                     | 1.12000 %                                     |
| Absorbance(220-350nm,2 % in H2O)   | 0-0.5                                         | 0.00790                                       |
| Loss on drying                     | 0-5 (%)                                       | 4.90000 %                                     |
| Heavy metals                       | 0-5 (ppm)                                     | 2.40000 ppm                                   |
| Volatile Impurities (decan)        | 0-50 (ppm)                                    | 26.00000 ppm                                  |
| Absorbance(350-660nm,2 % in H2O)   | 0-0.5                                         | 0.00690                                       |
| Molar Substitution                 | 0.5-0.7                                       | 0.56000                                       |
| Appearance (H102030)               | White to Off-White Solid, Powder, or Crystals | White to Off-White Solid, Powder, or Crystals |
| Infrared spectrum                  | Conforms to Structure                         | Conforms to Structure                         |

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