

## Certificate of Analysis

Date of Testing: 2023-04-17 14:40:04  
 Date of Next Testing: 2027-04-16 14:40:04  
 Product Name: **Succinic acid**  
 CAS Number: 110-15-6  
 Specifications & Purity: Analytical Reagent,99.5%  
 Lot #: D2312253  
 SKU #: **S108855**  
**Analysis: 058450**

| Parameter                                 | Limit Values          | Result                |
|---|-----------------------|-----------------------|
| Lead(Pb)                                  | 0-0.001 (%)           | 0.00 %                |
| Calcium(Ca)                               | 0-0.001 (%)           | 0.00 %                |
| Chloride (Cl-)                            | 0-0.001 (%)           | 0.00 %                |
| Phosphorus (P)                            | 0-0.0005 (%)          | 0.00 %                |
| Ignition Residue(Ash)                     | 0-0.02 (%)            | 0.00 %                |
| Ammonia (NH4)                             | 0-0.05 (%)            | 0.03 %                |
| Aluminum(Al)                              | 0-0.0005 (%)          | 0.00 %                |
| (PO4)Phosphate                            | 0-0.001 (%)           | 0.00 %                |
| Iron(Fe)                                  | 0-0.0005 (%)          | 0.00 %                |
| Magnesium(Mg)                             | 0-0.0005 (%)          | 0.00 %                |
| Potassium(K)                              | 0-0.005 (%)           | 0.00 %                |
| Copper(Cu)                                | 0-0.0005 (%)          | 0.00 %                |
| Sodium(Na)                                | 0-0.005 (%)           | 0.00 %                |
| Insoluble matter                          | 0-0.01 (%)            | 0.00 %                |
| Zinc(Zn)                                  | 0-0.0005 (%)          | 0.00 %                |
| Purity(Neutralization titration)          | 99.5-100.5 (%)        | 99.66 %               |
| Melting point                             | 185-189 (°C)          | 188.79000 °C          |
| Appearance (S108855)                      | white powder          | White powder          |
| Infrared spectrum                         | Conforms to Structure | Conforms to Structure |
| Solubility in H2O , Colorless Clear,0.5 M | pass                  | Pass                  |



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A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager