

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

## Certificate of Analysis

Date of Testing: 2022-06-14 14:35:09  
Date of Next Testing: 2026-06-13 14:35:09  
Product Name: **Direct Black 38**  
CAS Number: 1937-37-7  
Specifications & Purity: Dye content, ≥45 %  
Lot #: D2301840  
SKU #: **D118564**  
Analysis: **099292**

| Parameter                                                      | Limit Values               | Result                     |
|----------------------------------------------------------------|----------------------------|----------------------------|
| Absorption Ratio P-15/P+1                                      | 0.97-1                     | 0.98100                    |
| Dye Content                                                    | ≥45 (%)                    | 46.20000 %                 |
| Appearance (D118564)                                           | Dark brown or black powder | Dark brown or black powder |
| Infrared spectrum                                              | Conforms to Structure      | Conforms to Structure      |
| Solubility, Dark Green to Black, 5 mg + 5 mL, H <sub>2</sub> O | pass                       | Pass                       |



John Su  
QA & QC Manager