

SHANDONG OCTAGON CHEMICALS LIMITED

CERTIFICATE OF ANALYSIS

Product	<u>17α-estradiol (Cas 57-91-0)</u>		
Batch No.	2103001	Mfg. Date	2021.03.15
Rep. Date	2021.03.27	Exp. Date	2025.03.14
Test Items	Standards: Enterprise	Results	
Appearance	A white to off-white crystalline powder	A white powder	
Identification	IR	conforms	
Solubility	Soluble in ethyl alcohol, acetone, slightly soluble in ether, chloroform, insoluble in water	Conforms	
Melting range	223.0~229.0°C	223.1~223.8°C	
Specific rotation	+51°~+56°	+52.1°	
Related substances	Single impurity: NMT0.2% Total impurities: NMT1.0%	0.16% 0.76%	
Loss on drying	NMT3.0%	0.05%	
Residual solvents	Ethyl acetate: NMT5000ppm Ethyl alcohol: NMT5000ppm	102ppm 58ppm	
Particle size	100%NMT20um	Conforms	
Assay	97.0%~103.0%	99.50%	
Conclusion	It meets the requirements of Enterprise standards		
Prepared by: LI	Reviewed by: WEI	Released by: Zhang	