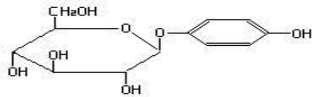


## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	<u>Beta Arbutin</u>		
<b>Chemical Structure:</b>			
<b>CAS No</b>	497-76-7		
<b>Batch Number</b>	20211109	<b>Manufacture Date</b>	20211109
<b>Report Date</b>	20211109	<b>Expiry Date</b>	20231108

Item	Specification	Results
Appearance	White needle crystal and powder	White needle crystal
Content of Arbutin	≥99.5% (By HPLC)	99.7%
IR characteristic peak	1515cm <sup>-1</sup> , 1220cm <sup>-1</sup> , 1050±(5-8)cm <sup>-1</sup>	Confirmed
Melting point	199-202°C	201°C
Loss on drying	≤0.5%	0.33%
Heavy metals	≤10 ppm	2ppm
Arsenic	≤2 ppm	Pass
Hydroquinone	≤10 ppm	2ppm
Transparency (In water)		Pass
Optical rotation	-62°----68°	-66.4
Ignition residue	≤1.0%	0.38%
Pathogen	Bacteria: <300CPU	
	Fungus: <100CPU	
	Without Salmonella or Escherichia coli	
Conclusion	The product is up to standard	

**Storage:** Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

**Shelf Life:** 24 months if store under the conditions above and stay in original packaging.

