



**SHAANXI FUJIE PHARMACEUTICAL CO.,LTD**

**CETIFICATE OF ANALYS**



|                                                                                     |                                                                                                                                                                    |             |                    |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------|
| Product Name:                                                                       | Ammonium Glycyrrhizinate                                                                                                                                           | Source:     | Product Department |
| Production Batch                                                                    | 2019080101                                                                                                                                                         | Quantity    | 200kg              |
| Manufacturing Date                                                                  | 2019.08.07                                                                                                                                                         | Expiry Date | 2019.08.06         |
| Sampling Date                                                                       | 2019.08.08                                                                                                                                                         | Report Date | 2017.08.14         |
| Test Method                                                                         | Standards of EP9.0                                                                                                                                                 |             |                    |
| Analysis                                                                            | Specification                                                                                                                                                      | Results     |                    |
| [Characters]                                                                        |                                                                                                                                                                    |             |                    |
| Appearance                                                                          | White to yellowish-white powder.                                                                                                                                   | Complies    |                    |
| Solubility                                                                          | Slightly soluble in water, very slightly soluble in ethanol, practically insoluble in acetone. It dissolves in dilute solutions of acids and of alkali hydroxides. | Complies    |                    |
| Identification:                                                                     |                                                                                                                                                                    |             |                    |
| Infraed absorption spectrophotometry                                                | Complies                                                                                                                                                           | Complies    |                    |
| Chemical reaction                                                                   | Complies                                                                                                                                                           | Complies    |                    |
| Check                                                                               |                                                                                                                                                                    |             |                    |
| Appearance of solution                                                              | Complies                                                                                                                                                           | Complies    |                    |
| Specific optical rotation                                                           | +49.0-+54.0                                                                                                                                                        | +53.2       |                    |
| Related substances                                                                  |                                                                                                                                                                    |             |                    |
| 18 a -glycyrrhizic acid                                                             | ≤ 10.0%                                                                                                                                                            | 6.2%        |                    |
| Impurity A                                                                          | ≤ 5.0%                                                                                                                                                             | 4.8%        |                    |
| Any other impurity                                                                  | ≤ 2.0%                                                                                                                                                             | 0.6%        |                    |
| Sum of other impurities                                                             | ≤ 7.0%                                                                                                                                                             | 2.5%        |                    |
| Heavy metals                                                                        | ≤ 20ppm                                                                                                                                                            | Complies    |                    |
| Water                                                                               | ≤ 6.0%                                                                                                                                                             | 5.6%        |                    |
| Sulphated ash                                                                       | ≤ 0.2%                                                                                                                                                             | Complies    |                    |
| Content                                                                             | 98.0%-102.0%(anhydrous substance)                                                                                                                                  | 98.7%       |                    |
| Determined: The goods by the Standards of EP9.0 testing, the results of compliance. |                                                                                                                                                                    |             |                    |

Inspector:Sunying

Re-inspector: Chanjun Pang

Quality Manager:Xiangjun Shi

Factory : Yuanqu Yi Road, Qinghe Food Industrial Park, Sanyuan County, Shaanxi Province, China

Sales Department : Room 2204, Fubaoyuan Building, Fengcheng 7 Road, Xian, Shaanxi Province, China