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## ZHUHAI UNITED LABORATORIES CO., LTD.

## CERTIFICATE OF ANALYSIS

No: 240519017

| Batch NO.      |                            |
|----------------|----------------------------|
| Pieces         | 40 drums +1drum            |
|                | EP and Enterprise standard |
|                | 04/2018                    |
| Date of report | 19/05/2014                 |
|                |                            |
|                | pecifications<br>xp Date   |

| TEOTC   | SPECIFICATIONS  | RESULTS  | CONCLUSION |
|---|---|--|------------|
| TESTS   | A white or almost white crystalline   | A white crystalline powder   | Conforms   |
| [APPEARANCE]  | powder and granule.  It is slightly soluble in water, very  | and granule.<br>Conforms   | Conforms   |
| Solubility  | slightly soluble in ethanol (96 percent), practically insoluble in fatty oils. It dissolves in dilute acids and dilute solutions of alkali hydroxides | V  |            |
| [IDENTIFICATION]  | Examine by IR absorption spectrophotometry comparing with the spectrum obtained with amoxicillin trihydrate CRS                                       | Conforms   | Conforms   |
| [TESTS]   |   | 4.5  | Conforms   |
| рН  | 3.5 ~ 5.5   | 4.5<br>+300  | Conforms   |
| Specific optical rotation<br>Related substances                     | + 290 ~ + 315   | Course   | Conforms   |
| Related Substances  | Any specified impurity≤1.0%   | 0 28%  |            |
|   | Any unspecified impurity<br>≤ 0 10%   | 0.08%  |            |
|   | Total impurities≤ 3.0%  | 0.81%  |            |
| N. N-Dimethylaniline  | NMT 20 ppm  | Conforms   | Conforms   |
|   | (Not used in process)   | 12.9%  | Conforms   |
| Water   | 11.5% ~ 14 5%   | 0 060%   | Conforms   |
| Sulphated ash   | NMT1 0%<br>95.0%~102.0% C16H19N3O5S   | 99.9%  | Conforms   |
| Assay   | 95.0%~102.0% C <sub>16</sub> H <sub>19</sub> N <sub>3</sub> O <sub>5</sub> S (calculated on the anhydrous basis).                                     |  | Conforms   |
| Residual solvents a) Acetone  | NMT800ppm   | 39 ppm   |            |
| b) Dichloromethane  | NMT600ppm<br>NMT300ppm  | 188ppm<br>58 ppm   |            |
| c) Triethylamine d) N <sub>1</sub> N-d <sub>1</sub> methylacetamide | NMT1090ppm  | 218 ppm  |            |
| e) Toluene  | NMT600ppm   | 254 ppm  |            |
| f) Pivalic acid   | NMT1000ppm  | 583 ppm  | la la      |
| g) Pyridine   | NMT200ppm   | 4ppm   | Conforms   |
| Bulk Density  | 0.45 g/ml ~ 0.65g/ml  | 0.53 g/ml  |            |
|   | NLT0.65g/ml   | 0.76 g/ml  | Conforms   |
| Tapped Density  | NMT35% of particles: NLT850 µ m   | 4%   | Conforms   |
| Particle size   | NLT40%of particles: NLT40% of particles: 850 µ m~180 µ m  | A CONTRACTOR OF THE CONTRACTOR |            |
| 2.000 TO 2.1  | NMT30% of particles: NMT180 µ m   | 19%  | the second |
| Tales of the state of the state of                                  |   | 1  | Conforms   |
| Microbial Limit   | NMT 1000 bacteria per gram.  NMT 80 molds and yeasts per gram.  E coli should be undetectable in 1  | Conforms   | Comorns    |
| The first and a complete or the                                     | gram  |  |            |
|   |   |  |            |

CONCLUSION: The results conform with EP and Enterprise standard

Pharmacopoeia quality: Complies with the current editions of USP, EP & BP Manufactured according to ICH Q7 GMP for APIs

REPORTED BY:

徐伟特 CHECKED BY:



