



## Certificate of Analysis

|                    |                                                              |                   |               |
|--------------------|--------------------------------------------------------------|-------------------|---------------|
| Product Name:      | <b>Oxiracetam</b>                                            | Batch Number:     | <b>Varies</b> |
| CAS No.            | <b>62613-82-5</b>                                            | Manufacture Date: | <b>Varies</b> |
| Molecular Formula: | <b>C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub></b> | Expiry Date:      | <b>Varies</b> |

| IDENTIFICATION |                                                | SPECIFICATION                                           | RESULT                      |
|----------------|------------------------------------------------|---------------------------------------------------------|-----------------------------|
| Purity         |                                                | ≥ 99%                                                   | 99.22 - 99.86%              |
| Physical       | Appearance                                     | White crystalline powder                                | Complies                    |
|                | Melting point                                  | 166°C - 170°C                                           | 166.9°C ~ 169°C             |
|                | Loss on drying                                 | ≤ 0.5%                                                  | 0.21 - 0.3%                 |
|                | Related Substances (HPLC)                      | Largest single impurity ≤ 0.5%<br>Total impurity ≤ 1.0% | 0.11 - 0.23%<br>0.14 - 0.8% |
|                | Transmittance of 1% aqueous solution at 470 nm | ≥ 99%                                                   | 99.3 - 99.6%                |
|                | Residue on ignition                            | ≤ 0.1%                                                  | 0.03 - 0.06%                |
|                | Residue of solvents                            | ≤ 600 ppm                                               | Complies                    |
| Chemical       | Chlorides                                      | ≤ 50 ppm                                                | Complies                    |
|                | Ammonium ion                                   | ≤ 10 ppm                                                | Complies                    |
|                | Heavy metals                                   | ≤ 10 - 20 ppm                                           | Complies                    |

|      |                   |                                     |
|------|-------------------|-------------------------------------|
| Else | Storage condition | Sealed, kept in shady and dry place |
|      | Shelf life        | Three years                         |

