



## **CERTIFICATE OF ANALYSIS**

| Product           | Hydroquinone USP                              |                    |               |
|-------------------|---|--------------------|---------------|
| Synonyms          | 1,4-Benzenediol                               |                    |               |
| CAS No.           | 123-31-9                                      | Batch No.          | HYD/096/20-21 |
| A.R. No.          | MR/FP/21/02/104                               | Manufacturing date | February 2021 |
| Batch size        | 274.400 kg                                    | Retest date        | January 2024  |
| Storage condition | Preserve in tight, light-resistant containers |                    |               |
| Date of analysis  | 18/02/2021                                    |                    |               |

| Test   | Specification   | Results                                |
|--|---|--|
| Description  | Fine white needles. Darkens upon  | Fine white needles. Darkens upon       |
| Solubility   | Exposure to light and air  Freely soluble in water, in alcohol, and in ether  | exposure to light and air Complies     |
| Identification a) By IR  | Corresponds to working standard.  | Conforms with standard                 |
| b) By TLC  | The R <sub>f</sub> Value of the principal spot obtained from the solution under test corresponds to that obtained from the standard solution. | Complies                               |
| c) By UV   | A1 in 40,000 solution in methanol exhibits an absorbance maximum at 293±2 nm  | Complies                               |
| Melting range  | Between 172-174 °C  | 172-174°C                              |
| Water (By KF)  | Not more than 0.5%  | 0.19%                                  |
| Residue on ignition  | Not more than 0.5%  | 0.08%                                  |
| Assay (By Titration)   | Not less than 99.0% and Not more than 100.5% of $C_6H_6O_2$ , calculated on the anhydrous basis.  | 99.65%                                 |
| In House test  |   |  |
| Related substance (By HPLC) Pyrogallol Resorcinol Pyrocatechol Largest single unknown impurity | Not more than 0.15%<br>Not more than 0.15%<br>Not more than 0.15%<br>Not more than 0.10%  | Not detected Not detected Not detected |
| Total impurities   | Not more than 1.0%  | Below LOQ<br>Below LOO                 |

Remark: The above material complies/does not comply with specification No. QCD/APS/002-R6

| Checked by                    | Approved by                |
|-------------------------------|----------------------------|
| 1103/2021                     | Monico<br>11/03/2021       |
| Hitesh Malvia<br>Manager - QC | Monica Tripathi VP – QA/RA |
|                               | Hitesh Malvia              |

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