

## SPECIFICATION

## p-Toluenesulfonic Acid Monohydrate

for RoHS

| REQUIREMENT                                                                             | SPECIFICATION                        |
|-----------------------------------------------------------------------------------------|--------------------------------------|
| Appearance                                                                              | White, crystals ~ crystalline powder |
| Assay (C <sub>7</sub> H <sub>8</sub> O <sub>3</sub> S · H <sub>2</sub> O)(after drying) | min.99.0%(mass/mass)                 |
| Solubility in water                                                                     | to pass test                         |
| Melting point                                                                           | 104~107°C                            |
| Loss on drying                                                                          | max.2.0%(mass/mass)                  |
| Residue after ignition (as sulfate)                                                     | max.0.05%(mass/mass)                 |
| Chloride (Cl)                                                                           | max.0.001%(mass/mass)                |
| Sulfate (SO <sub>4</sub> )                                                              | max.0.1%(mass/mass)                  |
| Sodium (Na)                                                                             | max.0.002%(mass/mass)                |
| Copper (Cu)                                                                             | max.0.001%(mass/mass)                |
| Lead (Pb)                                                                               | max.0.001%(mass/mass)                |
| Iron (Fe)                                                                               | max.0.001%(mass/mass)                |
| Cadmium (Cd) (RoHS)                                                                     | max.10ppm                            |
| Mercury (Hg) (RoHS)                                                                     | max.10ppm                            |
| Lead (Pb) (RoHS)                                                                        | max.10ppm                            |
| Chromium (Cr) (RoHS)                                                                    | max.10ppm                            |
| Brominated flame retardants (as Br) (RoHS)                                              | max.1ppm                             |