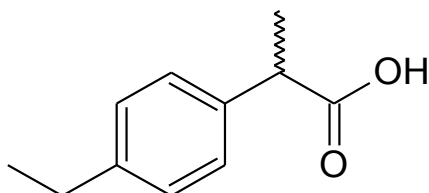


## Certificate of Analysis

**Structure:**



|                      |  |
|----------------------|--|
| Name                 | (2RS)-2-(4-ethylphenyl)propanoic acid  |
| BP Name              | Ibuprofen Impurity N   |
| Synonym(s)           | <i>p</i> -ethylhydratropic acid; 4-ethyl- $\alpha$ -methylbenzeneacetic acid; (2RS)-2-( <i>p</i> -ethylphenyl)propionic acid; (2RS)-2-(4-ethylphenyl)propionic acid  |
| Epichem Item #       | EPL-AA165 Batch 1  |
| CAS #                | 3585-52-2  |
| Molecular Formula    | C <sub>11</sub> H <sub>14</sub> O <sub>2</sub>   |
| Molecular Weight     | 178.23 g/mol   |
| Purity               | 99.6% (weight/weight).<br>99.8% at 220 nm by HPLC (assuming all components have the same response factor).<br>Trace impurity detected by <sup>1</sup> H NMR analysis.<br>0.20% water by Karl-Fischer method.<br>0.04% ash. |
| Combustion Analysis  | Required (%): C:74.1; H:7.9; N:0.0. Found (%): C:74.2; H:7.8; N:<0.05.   |
| Appearance           | White waxy solid   |
| Melting Point        | 37.0-40.5°C  |
| Date of Manufacture  | 2 March 2015   |
| Storage Requirements | Protect from heat, light and moisture.   |
| Special Precautions  | <b>This compound is for laboratory use only. Its toxicological properties may not have been fully established. It should be handled only by suitably qualified personnel.</b>  |