

# Chem-Impex International, Inc.

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## Product Specifications

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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalogue Number</b>  | 43455                                                                                                                                             |
| <b>Product</b>           | <b>Ethyl 1-(tert-butoxycarbonyl)-4-</b><br>1-(tert-Butoxycarbonyl)-4-piperidinecarboxylic acid ethyl ester<br>Ethyl 1-Boc-4-piperidinecarboxylate |
| <b>CAS Number</b>        | 142851-03-4                                                                                                                                       |
| <b>Molecular Formula</b> | C <sub>13</sub> H <sub>23</sub> NO <sub>4</sub>                                                                                                   |
| <b>Molecular Weight</b>  | 257.33                                                                                                                                            |

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|--------------------------|----------------------------------------------------------------------------------|
| <b>Warnings</b>          | <i>Hygroscopic, Heat Sensitive! Store under inert gas!</i>                       |
| <b>Synonym 3</b>         | 1-Boc-4-piperidinecarboxylic acid ethyl ester                                    |
| <b>Synonym 4</b>         | 1-tert-Butyl 4-ethyl piperidine-1,4-dicarboxylate                                |
| <b>Appearance</b>        | Colorless to light yellow to light orange clear liquid to slightly cloudy liquid |
| <b>Boiling point</b>     | 140 °C/0.098 mmHg                                                                |
| <b>Flash Point</b>       | >110 °C                                                                          |
| <b>Density</b>           | 1.05                                                                             |
| <b>Refractive Index</b>  | <i>n</i> <sub>D</sub> <sup>20</sup> 1.46                                         |
| <b>Infrared Spectrum</b> | Conforms to structure                                                            |
| <b><sup>1</sup>H NMR</b> | Conforms to structure                                                            |
| <b>Purity by GC</b>      | ≥ 97%                                                                            |
| <b>Grade</b>             | Piperidine-1,4-dicarboxylic acid 1-tert-butyl 4-ethyl ester                      |
| <b>Storage</b>           | Store at 2 - 8 °C                                                                |

**For Laboratory Use Only**