

# Chem-Impex International, Inc.

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Wood Dale, IL 60191

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**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

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## Certificate of Analysis

|                          |  |
|--------------------------|--|
| <b>Catalogue Number</b>  | 36358  |
| <b>Lot Number</b>        | 003041-20210708  |
| <b>Product</b>           | <b>Triethyl 2-phosphonobutyrate</b><br>$\alpha$ -Diethylphosphonobutanoic acid ethyl ester |
| <b>CAS Number</b>        | 17145-91-4   |
| <b>Molecular Formula</b> | C <sub>10</sub> H <sub>21</sub> O <sub>5</sub> P   |
| <b>Molecular Weight</b>  | 252.24   |

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|---------------------------|--|
| <b>Appearance</b>         | Colorless liquid   |
| <b>Residual Solvents</b>  | < 1%   |
| <b><sup>1</sup>H NMR</b>  | Conforms to structure  |
| <b><sup>31</sup>P NMR</b> | Conforms to structure  |
| <b>Purity by GC</b>       | 98.3%  |
| <b>Storage</b>            | Store at RT  |
| <b>Remarks</b>            | See material safety data sheet for additional information<br>For laboratory use only |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



**Bala Kumar**  
Quality Control Manager