



# American International Chemical, Inc.

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## SPECIFICATION SHEET

### Ac dC PHOSPHORAMIDITE

#### 5'-Dimethoxytrityl-N-acetyl-2'-deoxycytidine-3'[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite

| Code No. | SCN No. | CAS No. | Effective Date | Product Manager | Rev. No. | Approved By |
|----------|---------|---------|----------------|-----------------|----------|-------------|
| AACAUP   | 1616    | -       | March 10, 2008 | RIWII           | No. 1    | MVL         |

|                         |  |
|-------------------------|--|
| <b>CHARACTERISTICS:</b> | White to slight yellow free flowing crystalline powder |
|-------------------------|--|

|                           |   |
|---------------------------|---|
| <b>MOLECULAR FORMULA:</b> | C <sub>41</sub> H <sub>50</sub> N <sub>5</sub> O <sub>8</sub> P |
|---------------------------|---|

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|--------------------------|--------------|
| <b>MOLECULAR WEIGHT:</b> | 771.9 g/mole |
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|                        |                                    |                           |
|------------------------|------------------------------------|---------------------------|
| <b>SPECIFICATIONS:</b> | Purity by HPLC                     | 98.5% min                 |
|                        | Purity by 31 P NMR                 | 98.0% min                 |
|                        | Impurity Profile by HPLC MS        |                           |
|                        | Any single "critical" impurity     | Less than 0.1%            |
|                        | Total of all "critical" impurities | Less than 0.3%            |
|                        | Any other single impurity          | Less than 1.0 %           |
|                        | Total of all impurities            | Less than 1.5%            |
|                        | Organic volatile impurities        | 3% max                    |
|                        | Solubility in acetonitrile (0.2M)  | No particles detected     |
|                        | Stability in acetonitrile          | No precipitates at 7 days |
| Water content          | 0.5% max                           |                           |

|                         |                |
|-------------------------|----------------|
| <b>STOCKING POINTS:</b> | Framingham, MA |
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|                   |                          |
|-------------------|--------------------------|
| <b>PACKAGING:</b> | 30 and 60 ml amber vials |
|-------------------|--------------------------|

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|----------------------|---------------------------|
| <b>APPLICATIONS:</b> | Oligonucleotide Synthesis |
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| <b>SPECIAL STORAGE INSTRUCTIONS:</b> | Room temperature |
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