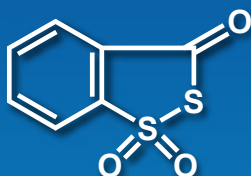
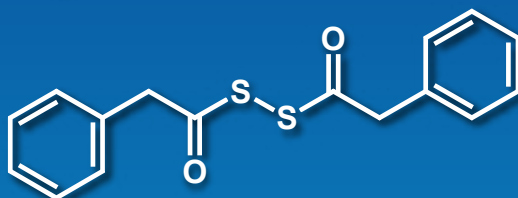


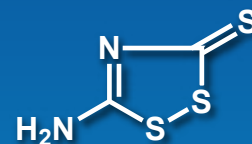
Sulfur-Transfer Reagents for Synthesis of Oligonucleotide Phosphorothioates



Beaucage Reagent
[B3125]



Bis(phenylacetyl) Disulfide
[B3623]

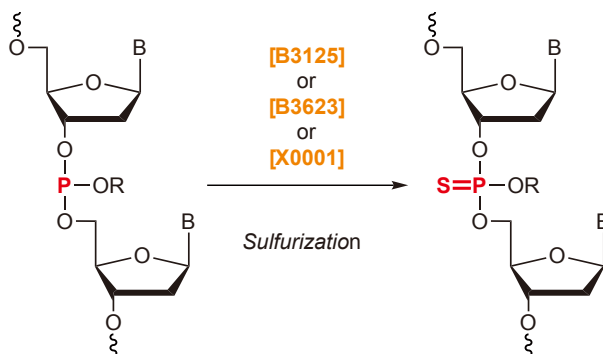


Xanthane Hydride
[X0001]

Advantages

- Suitable for the Phosphoramidite Method
- Available in 100 kg Scale (X0001)

Application



B3125,¹⁾ **B3623**²⁾ and **X0001**³⁻⁵⁾ are widely used as a sulfur-transfer reagent for synthesis of oligonucleotide phosphorothioates via the phosphoramidite method.

In particular, **X0001** has advantages because it does not yield oxidizing substances, carbon disulfide and cyanamide as the additional reaction products. For DNA/RNA synthesizer, **X0001** solution is used, such as 0.02 M solution in acetonitrile/pyridine (9:1),³⁾ or 0.20 M solution in pyridine.⁵⁾

- References**
- 1) S. L. Beaucage, *e-EROS Encycl. Reagents Org. Synth.* **2012**, 1.
 - 2) A. H. Krotz, D. Gorman, P. Mataruse, C. Foster, J. D. Godbout, C. C. Coffin, A. N. Scozzari, *Org. Process Res. Dev.* **2004**, 8, 852.
 - 3) J.-Y. Tang, Y. Han, J. X. Tang, Z. Zhang, *Org. Proc. Res. Dev.* **2000**, 4, 194.
 - 4) J. Hanusek, M. A. Russell, A. P. Laws, P. Jansa, J. H. Atherton, K. Fettesd, M. I. Page, *Org. Biomol. Chem.* **2007**, 5, 478.
 - 5) I. Cedillo, D. Chreng, E. Engle, L. Chen, A. K. McPherson, A. A. Rodriguez, *Molecules* **2017**, 22, 1356.

Beaucage Reagent
Bis(phenylacetyl) Disulfide
Xanthane Hydride

1g / 5g [B3125]
5g / 25g [B3623]
25g / 100g / 500g [X0001]

For further information please refer to our website at www.TCIchemicals.com.

Oligonucleotide Synthesis

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