## Strem Chemicals, Inc.

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Catalog # 15-1383

(11bR)-8,9,10,11,12,13,14,15-Octahydro-4-hydroxy-2,6-di-1-naphthalenyl-4-oxide-dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin, 95%, (98.5% ee)

## **Technical Notes:**

- 1. **Friedel-Crafts Alkylation:** Chiral phosphoric acid catalyzed Friedel-Crafts alkylation of indoles with 3,3,3-trifluoropyruvate gave the corresponding adducts in excellent yields with high enantioselectivities.
- 2. **Pinacol Rearrangement:** It has been found that indolyl diols can be treated with chiral phosphoric acids to effect a regio- and enantioselective pinacol rearrangement with high efficiency.

$$R^{1} + F_{3}C + COOR^{2} + F_{3}C + COOR^{2$$

## References:

- 1. Asian J. Chem., 2010, 5, 470-472.
- 2. Angew. Chem. Int. Ed., 2010, 49, 9734-9736.