

# Chem-Impex International, Inc.

---

Tel: (630) 766-2112

E-mail: sales@chemimpex.com

Shipping and Correspondence:

935 Dillon Drive

Wood Dale, IL 60191

Fax: (630) 766-2218

Web site: www.chemimpex.com

Manufacturing site:

825 Dillon Drive

Wood Dale, IL 60191

---

## Certificate of Analysis

**Catalogue Number** 24613  
**Lot Number** 001702-20130513  
**Product** **(S)-(-)-1,1'-Binaphthyl-2,2'-diamine**

(S)-(-)-1,1'-Bi(2-naphthylamine)

(S)-(-)-2,2'-Diamino-1,1'-binaphthalene

**CAS Number** 18531-95-8

**Molecular Formula** C<sub>20</sub>H<sub>16</sub>N<sub>2</sub>

**Molecular Weight** 284.36

---

**Appearance** White crystal

**Melting Point** 242-244 °C

**Optical Rotation** [α]<sub>D</sub><sup>25</sup> = + 156 ° (C=1.0 in pyridine)

**Chiral HPLC** 99.95% (ee)

**Purity by HPLC** 99.8%

**Storage** Store at 0-8°C

**Remarks** See material safety data sheet for additional information

For laboratory use only

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



**Bala Kumar**  
**Quality Control Manager**