

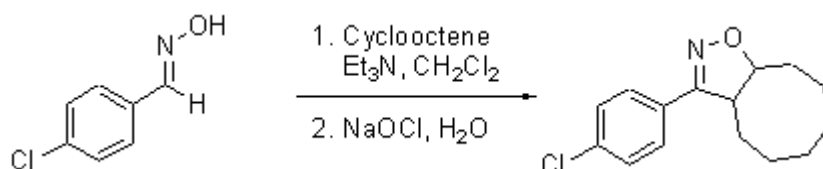
*Molecules* **1999**, *4*, M123

### 3a,4,5,6,7,8,9,9a-Octahydro-3-(4-chlorophenyl)cyclooct[d]isoxazole

Bruce A. Hathaway, Forest G. Peltan, Ryan A. Mueller and Ryan M. Redfearn

Department of Chemistry, Southeast Missouri State University, MS 6400, One University Plaza, Cape Girardeau, Missouri, 63701, USA. Tel. 001 573-651-2370; Fax 001 573-986-6433; E-mail: [bahathaway@semovm.semo.edu](mailto:bahathaway@semovm.semo.edu)

Received: 22 October 1999 / Accepted: 1 November 1999 / Published: 23 November 1999



To a solution of 4-chlorobenzaldehyde oxime (0.40g) in  $\text{CH}_2\text{Cl}_2$  (10 mL) in a large test-tube were added 1.0 mL of cyclooctene and 3 drops of triethylamine. The solution was cooled to  $5^\circ\text{C}$ , then 7.0 mL of 5% NaOCl solution in water was added in small portions. After each portion was added, the test-tube was agitated with a Vibromixer<sup>TM</sup> stirrer for 15 seconds. After the addition of all of the NaOCl solution, the test-tube was agitated with a Vibromixer<sup>TM</sup> stirrer for 15 seconds every 5 minutes over the next hour. The reaction mixture was allowed to stand overnight. The layers were separated, and the aqueous layer was extracted with  $\text{CH}_2\text{Cl}_2$  (5 mL). The combined  $\text{CH}_2\text{Cl}_2$  layers were evaporated to yield an off-white solid. The solid was recrystallized from 95% ethanol to yield shiny white plates. Yield: 0.51g (75%).

M.p.  $124\text{--}125^\circ\text{C}$ .

IR (KBr pellet,  $\text{cm}^{-1}$ ): 3085, 3070, 1930, 2909, 2871, 2854, 1593, 1494, 1469, 1402, 1383, 1343, 1091, 919, 899, 838.

$^1\text{H-NMR}$  (300MHz,  $\text{CDCl}_3$ , ppm): 1.2-2.2 (12 H, multiplets), 3.40 (1H, t,  $J=9.4$  Hz), 4.50 (1H, m), 7.38 (2H, m), 7.61 (2H, m).

$^{13}\text{C-NMR}$  (75.5 MHz,  $\text{CDCl}_3$ , ppm): 161.9, 136.0, 129.5, 128.6, 128.3, 86.2, 50.5, 30.6, 25.9, 25.8, 25.6, 25.2, 25.0.

GC-MS (ion trap, m/e, in order of decreasing peak size): 137 (100%), 102, 50, 75, 139, 51, no molecular ion detected.

#### References and Notes

- Gingrich, H. L.; Pickering, M. *J. Chem. Educ.* **1991**, *68*, 614-615.
- Bianchi, G.; De Micheli, C.; Gandolfi, R. *J. Chem. Soc., Perkin Trans. 1* **1972**, 1711-1714.

*Sample Availability*: available from MDPI.

©1999 MDPI. All rights reserved. *Molecules* website [www.mdpi.org/molecules](http://www.mdpi.org/molecules)