

## Synthesis of 4-isopropyl-bis-2,6-morpholin-4-ylmethyl-1-phenol

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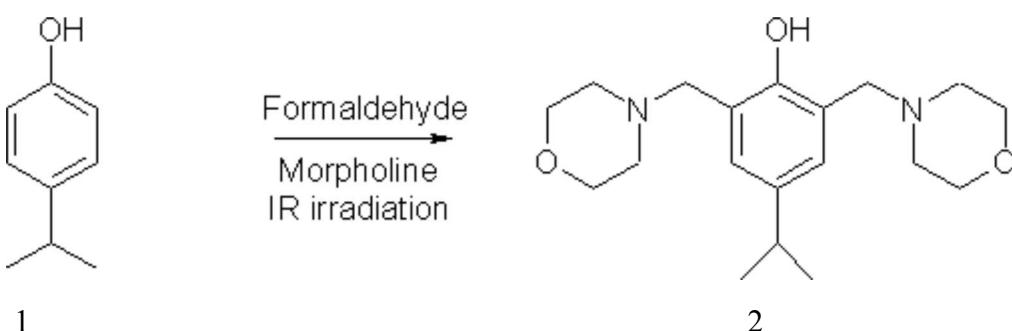
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4-isopropyl-bis-2,6-morpholin-4-ylmethyl-1-phenol (2) was prepared from 4-isopropylphenol (1) and formaldehyde (2 eq.) and 2 eq. of morpholine. They were mixed in a round flask fitted with a condenser. The mixture was irradiated with infrared light using a medicinal infrared lamp (250 Watts) and the reaction was monitored by tlc, and after 20 minutes, the reaction was completed. The mixture was chromatographed on silica gel using solvent gradient hexane/ethyl acetate. Liquid compound, yield 70%

IR ( $\text{n cm}^{-1}$ ;  $\text{CHCl}_3$  film) 3497 (O-H), 3023 ( $\text{C}_{\text{sp}2}\text{-H Ar}$ ), 2900 ( $\text{C}_{\text{sp}3}\text{-H}$ ).

$^1\text{H-NMR}$  (200 MHz;  $\text{CDCl}_3$ ;  $\text{Me}_4\text{Si}$ ,  $\delta_{\text{H}}$ ): 7.31 (1H, s, OH), 7.27 (2H, s), 3.90 (4H, s, Ar- $\text{CH}_2$ ), 3.90 (8H, m, - $\text{S-CH}_2$ -), 2.82 (8H, m, - $\text{N-CH}_2$ - + 1H, m), 1.21 (6H, d,  $J=7.0$  Hz).

$^{13}\text{C-NMR}$  (50 MHz;  $\text{CDCl}_3\delta_{\text{C}}$ ): 154.6 (C), 139.7 (C), 129.0 (CH), 118.9 (C), 65.75 (-O- $\text{CH}_2$ -), 58.13 (Ar- $\text{CH}_2$ ), 51.96 (- $\text{N-CH}_2$ -), 33.08 (CH), 24.03 ( $\text{CH}_3$ ).

FAB-MS  $m/z$  (rel%) ( $\text{M}+1$ ): 335 (24%), 319, 248

Elemental Analysis: Calculated for  $\text{C}_{19}\text{H}_{30}\text{O}_3\text{N}_2$  (334): C 68.23 %, H 9.04 %, N 8.38 %, O 14.35 %, found : C 68.49 %, H 9.21 %, N 8.23 %, O 14.2 %.

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