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3-Cyano-2-cyanomethylthio-4-methoxymethyl-6-methylpyridine

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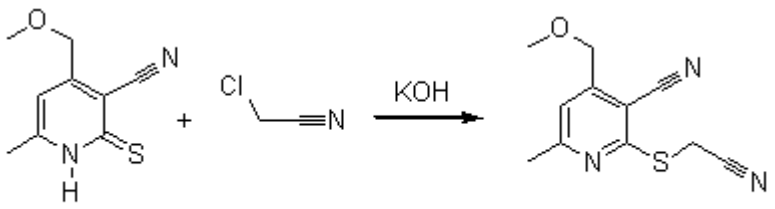

1 **2**

2-Cyanomethylthiopyridine (**2**) was prepared by the reaction of the pyridinethione **1** with chloroacetonitrile using literature procedures [1, 2].

To a suspension of pyridinethione **1** (1.94 g, 10 mmol) in 20 ml of DMF aqueous solution of potassium hydroxide (10%, 5.6 ml, 10 mmol) and chloroacetonitrile (0.64 ml, 10 mmol) were added. The mixture was kept at room temperature for 3 hours, then diluted with twice the volume of water. The precipitate of product (2) was separated, washed with a small volume of water and recrystallized from ethanol. Compound **2** - colourless solid. Yield 2.24g (96%).

M.p.:105-106°C (ethanol).

^{1}H NMR ($(CD_3)_2CO$, 60 MHz): 2.73 (s, 3H, CH_3); 2.77 (s, 3H, $CH_2OC\mathit{H}_3$); 4.30 (s, 2H, S-CH_2); 4.58 (s, 2H, $C\mathit{H}_2OCH_3$); 7.28 (s, 1H, H_{Het}).

IR (vaseline oil, cm^{-1}): 2240s, 2210vs, 1575vs, 1540s, 1415m, 1390w, 1340s, 1305w, 1265s, 1230m, 1190s, 1140s, 1010vs, 1005vs, 1030w, 990w, 970m, 960m, 930w, 890s, 870s, 850m, 760w, 725m.

Anal. calc. for $C_{11}H_{11}N_3OS$ (233.291): C 56.63, H 4.75, N 18.01; found: C 56.59, H 4.82, N 17.92.

References

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Sample availability: available from the authors and MDPI.