4-(3-Nitrophenylazo)-5-trifluoromethyl-2,4-dihydropyrazol-3-one

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To a cold solution of 5-trifluoromethyl-2,4-dihydropyrazol-3-one [1,2] (0.76 g, 5 mmol) in ethanol (25 ml) containing sodium acetate (0.82 g, 10 mol), 3-nitrobenzenediazonium chloride (5 mmol) was added dropwise with stirring at 0-5°C. The reaction mixture was stirred at room temperature for three hours and the precipitated crude product was filtered, washed with water, dried and crystallized from ethanol to give 1.2 g (80%) of 2 as orange crystals.

M.p. 253-255°C.

MS (m/z): 301.

¹H-NMR (250 MHz, DMSO-d₆): 2.50 (s, 1H, CH); 7.71-8.45 (m, 4H, aromatic CH); 12.70 (s, 1H, NH).

¹³C-NMR (75 MHz, CDCl₃): 116.65, 124.24 (quaternary aromatic carbons); 111.04, 119.99, 122.40, 130.77 (4 aromatic CH’s); 136.50 (q, CF₃); 142.38 (C-4); 148.35 (C-5); 158.33 (CO).

References


Sample Availability: Available from the authors and from MDPI.

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