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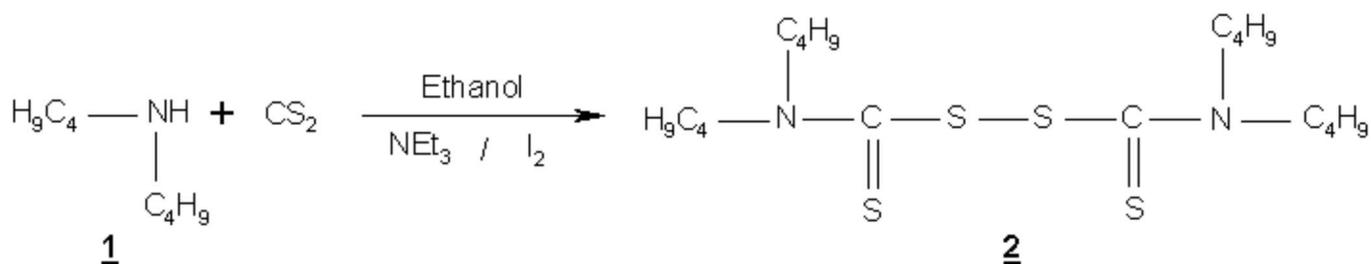
Bis(N,N-dibutylthiocarbamoyl) Disulfide

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This experiment is performed according to literature method [1-3]. N,N-Dibutylamine **1** (20 mL, 0.024 mol) in ethanol solution and triethylamine (6.65 g, 0.048 mol) were cooled to 5°C under stirring. Then carbon disulfide (3.65 g, 0.48 mol) was added to the solution. After 1 hour of stirring, solid iodine (2,8 g, 0.022 mol) was added in portions and stirred until the colour disappeared completely. Then a methanolic solution of iodine was added dropwise until a faint colour persists. Excess of iodine was neutralised with $\text{Na}_2\text{S}_2\text{O}_3$ solution. The product was extracted with diethyl ether, washed thrice with water, dried over Na_2SO_4 , filtered, and diethylether was evaporated at room temperature to give liquid compound **2**. Yield: 83%.

$^1\text{H NMR}$ (CCl_4) d (ppm): 1,00 (t, 12H, CH_3 -); 1,48 (m, 16H, $-\text{CH}_2\text{-CH}_2-$); 2,73 (s, 8H, N- CH_2).

$^{13}\text{C NMR}$ (CDCl_3) d (ppm): 193 ($-\text{C}=\text{S}$), 55 (N- CH_2), 20 (CH_3).

IR (KBr, cm^{-1}): 3000 ($-\text{S-S}-$); 1100 ($\text{C}=\text{S}$).

MS (m/z): 408 [M] $^+$.

U.V : $\lambda_{\text{max}} = 280 \text{ nm}$ ($-\text{C}=\text{S}$).

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Sample Availability: Available from the authors and from MDPI.

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