

Synthesis and iodocyclization of 3-((2*E*{2*Z*})-3-chloro-2-propenyl)thio-4-methyl-1,2,4-triazoles

© Elena S. Il'inykh,^{†*} and Dmitry G. Kim*

Organic Chemistry Subdepartment. South Ural State University. Lenin St., 76. Chelyabinsk, 454080.

Chelyabinskaya State. Russia. Phone: +7 (351) 265-95-70. E-mail: elena.ilinykh@mail.ru

*Supervising author; [†]Corresponding author

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Abstract

In this paper, we report the interaction between 3-mercapto-4-methyl-1,2,4-triazole and 1,3-dichloropropene in alcohols in the presence of sodium alcoholates. By ¹H NMR and mass spectra methods it was revealed that the reaction afforded the mixture of approximately equal amounts (1.00 : 1.00) of *E*- and *Z*-isomers of 3-(3-chloro-2-propenyl)thio-4-methyl-1,2,4-triazole. We found that the reaction of the synthesized *S*-alkenyl derivatives with iodine resulted in 7-chloro-6-iodo-3-methyl-6,7-dihydro-5*H*-[1,2,4]triazolo[5,1-*b*][1,3]thiazinium iodide being formed and its structure was investigated by ¹H NMR.