Synthesis and Reactions of 5-[Amino(thiomethyl)methylene]-2,2-dimethyl-1,3-dioxane-4,6-dione

Ahmad Al-Sheikh\textsuperscript{a}, Kamal Sweidan\textsuperscript{b}, Cäcilia Maichle-Mößmer\textsuperscript{c}, Manfred Steimann\textsuperscript{c}, and Norbert Kuhn\textsuperscript{c}

\textsuperscript{a} Faculty of Pharmacy, Petra University, P.O. Box 961343, Amman, Jordan
\textsuperscript{b} Faculty of Pharmacy, Al-Zaytoonah University of Jordan, P.O. Box 130, Amman, Jordan
\textsuperscript{c} Institut für Anorganische Chemie der Universität Tübingen, Auf der Morgenstelle 18, D-72076 Tübingen, Germany

Reprint requests to Dr. A. Al-Sheikh. E-mail: aalsheikh@uop.edu.jo or Prof. Dr. N. Kuhn. E-mail: norbert.kuhn@uni-tuebingen.de

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5-[Amino(thiomethyl)methylene]-2,2-dimethyl-1,3-dioxane-4,6-dione (4) is obtained from 5-[bis-(thiomethyl)methylene]-2,2-dimethyl-1,3-dioxane-4,6-dione (1) and aqueous ammonia in excellent yield. Its reaction with \textit{m}-chloroperbenzoic acid gives the sulfoxide derivative 5-[amino(sulfinylmethylene)]-2,2-dimethyl-1,3-dioxane-4,6-dione (5). With triphenylphosphine, 5 reacts to give triphenyl(thiomethyl)phosphonium 5-cyano-2,2-dimethyl-1,3-dioxane-4,6-dionate (6) from which the methyltriphenylphosphonium salt 6\textsubscript{a} is obtained with excess triphenylphosphine. The crystal structures of 4, 5 and 6\textsubscript{a} are discussed.

\textit{Key words:} Meldrum’s Acid, Heterocycles, Hydrogen Bonds, Sulfur, Zwitterionic States