

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

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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 *m*-chloroperbenzoic acid gives the sulfoxide derivative 5-[amino(sulfinylmethyl)methylene]-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 **6a** is obtained with excess triphenylphosphine. The crystal structures of **4**, **5** and **6a** are discussed.

*Key words:* Meldrum's Acid, Heterocycles, Hydrogen Bonds, Sulfur, Zwitterionic States