

Tris-N-(N',N',N'',N''-tetramethylguanidyl)phosphine Oxide – Synthesis and Reaction with Acids

Matthias Freytag, Volker Plack, Peter G. Jones, and Reinhard Schmutzler

Institut für Anorganische und Analytische Chemie der Technischen Universität,
Postfach 3329, D-38023 Braunschweig, Germany

Reprint requests to R. Schmutzler. Fax: +49 (0)531 391 5387. E-mail: r.schmutzler@tu-bs.de

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The phosphoryl compound (O:)P(TM_G)₃ (TM_G = N',N',N'',N''-tetramethylguanidyl) (**6**) was synthesized during attempts to obtain the potentially very basic (but still unknown) compound P(TM_G)₃ (**1**). Its reaction with HCl resulted in the triply protonated species **7**. The crystal structure of compound **7** was determined; it crystallizes as a bis-dichloromethane solvate. Each protonated nitrogen forms a hydrogen bond to one chloride. A series of protonation experiments was conducted in order to test the behaviour of **6** towards weak acids.

Key words: Tetramethylguanidine, Basicity, Phosphine Oxides