

N-H FREE AND SI-RICH PERHYDROPOLYSILAZANE COMPOSITIONS, THEIR SYNTHESIS, AND APPLICATIONS

Abstract

5 Solid or liquid N-H free, C-free, and Si-rich perhydropolysilazane compositions comprising units having the following formula $[-N(SiH_3)_x(SiH_2-)_y]$, wherein $x=0, 1, \text{ or } 2$ and $y= 0, 1, \text{ or } 2$ when $x+y=2$; and $x= 0, 1 \text{ or } 2$ and $y=1, 2, \text{ or } 3$ when $x+y=3$ are disclosed. Also disclosed are synthesis methods and applications for the same.

10 [Figure 12]