Single crystals of ScOH(CH$_3$SO$_3$)$_2$ were obtained from a solution of Sc$_2$(CO$_3$)$_3$ in methanesulfonic acid at pH 7. According to the X-ray single crystal structure determination, the compound crystallizes with the non-centrosymmetric orthorhombic space group $Pmc_2_1$ ($Z = 8$, $a = 743.92(8)$, $b = 1497.7(3)$, $c = 1540.1(2)$ pm, $R_{all} = 0.0925$) and contains the Sc$^{3+}$ ions in octahedral coordination of oxygen atoms which belong to two OH$^-$ and four CH$_3$SO$_3^-$ ions. The linkage of the Sc$^{3+}$ ions leads to chains according to the formulation $\frac{1}{\infty}$[Sc(CH$_3$SO$_3$)$_4$/2(OH)$_2$/2] which are oriented along the [100] direction and connected via hydrogen bonds. The IR spectrum of the compound shows the typical bands of the CH$_3$SO$_3^-$ ion.

Key words: Scandium, Methanesulfonate, Crystal Structure