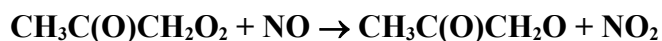


## IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet ROO\_6

Website: <http://iupac.pole-ether.fr>. See website for latest evaluated data. Data sheets can be downloaded for personal use only and must not be retransmitted or disseminated either electronically or in hardcopy without explicit written permission.

This data sheet updated: 22<sup>nd</sup> November 2006.



### Rate coefficient data

$k/\text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	Temp./K	Reference	Technique/ Comments
<i>Absolute Rate Coefficients</i> $(8 \pm 2) \times 10^{-12}$	295	Sehested et al., 1998	PR-AS (a)

### Comments

- (a) Pulse radiolysis of a  $\text{CH}_3\text{COCH}_3/\text{O}_2/\text{SF}_6/\text{NO}$  mixture at 1 atmosphere monitored by UV/VIS absorption of the peroxy radical at 310 nm and  $\text{NO}_2$ . The rate constant was obtained by fitting to the transient absorption of  $\text{NO}_2$  at 400 and 450 nm taking into account interfering reactions using chemical-kinetic modeling.

### Preferred Values

$$k = (8 \pm 2) \times 10^{-12} \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1} \text{ at } 295 \text{ K and } 1 \text{ atm.}$$

#### Reliability

$$\Delta \log k = \pm 0.3 \text{ at } 295 \text{ K.}$$

#### Comments on Preferred Values

The preferred value is based on the sole study of Sehested et al. (1998).

### References

Sehested, J., Christensen, L. K., Nielsen, O. J., Bilde, M., Wallington, T. J., Schneider, W. F., Orlando, J. J. and Tyndall, G. S.: *Int. J. Chem. Kin.* 30, 475, 1998.