IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet SOx53

This data sheet updated: 20th November 2001.

$CH_2SH + O_3 \rightarrow$ products

Rate coefficient data

k/cm^3 molecule^{-1} s^{-1}	Temp./K	Reference	Technique/ Comments
Absolute Rate Coefficients			
$(3.5 \pm 1.2) \times 10^{-11}$	298	Rahman et al., 1992	(a)

Comments

(a) Fast-flow discharge study. CH_2SH radicals were generated by the reaction of F atoms with CH_3SH, and monitored by MS. Source reactions were simulated to check consumption of F atoms. The total pressure was 3 mbar.

Preferred Values

$k = 3.5 \times 10^{-11}$ cm^3 molecule^{-1} s^{-1} at 298 K.

Reliability

$\Delta \log k = \pm 0.3$ at 298 K.

Comments on Preferred Values

The only available determination (Rahman et al., 1992) of k is accepted, but with substantial error limits until confirmatory studies can be made.

References

Rahman, M. M., Becker, E., Wille, U. and Schindler, R. N.: Ber. Bunsenges. Phys. Chem. 96, 783, 1992.