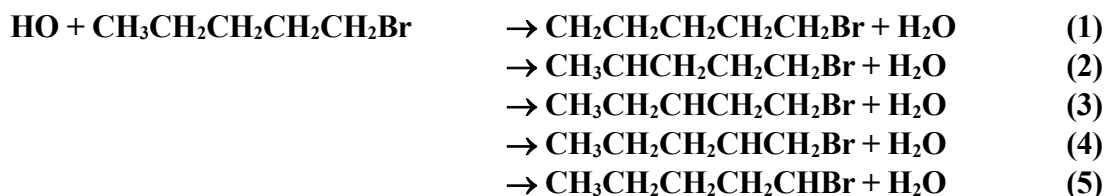


IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation - Data Sheet oBrOx22; VII.A3.7

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The citation for the preferred values in this data sheet is: IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation, <http://iupac.pole-ether.fr>.

This datasheet last evaluated: June 2015; last change in preferred values: June 2009.



Rate coefficient data ($k = k_1 + k_2 + k_3 + k_4 + k_5$)

$k/\text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	T/K	Reference	Technique/ Comments
<i>Relative Rate Coefficients</i> $(3.71 \pm 0.13) \times 10^{-12}$	304	Donaghy et al. (1993)	RR (a)

Comments

- (a) The rate coefficient ratio $k(\text{HO}+\text{C}_5\text{H}_{11}\text{Br})/k(\text{HO}+\text{cyclohexane}) = 0.520 \pm 0.018$ was placed on an absolute basis using $k(\text{HO}+\text{cyclohexane}) = 3.26 \times 10^{-17} T^2 \exp(-262/T) \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$ (Atkinson, 2003).

Preferred Values

Parameter	Value	T/K
$k/\text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	3.7×10^{-12}	298
<i>Reliability</i> $\Delta \log k$	0.20	298

Comments on Preferred Values

The rate coefficient reported by Donaghy et al. (1993) at 304 K is the sole study and the basis of the recommendation.

References

Atkinson, R.: Atmos. Chem. Phys., 3, 2233, 2003.

Donaghy, T., Shanahan, I., Hande, M., and Fitzpatrick, S.: Int. J. Chem. Kinet., 25, 273, 1993.