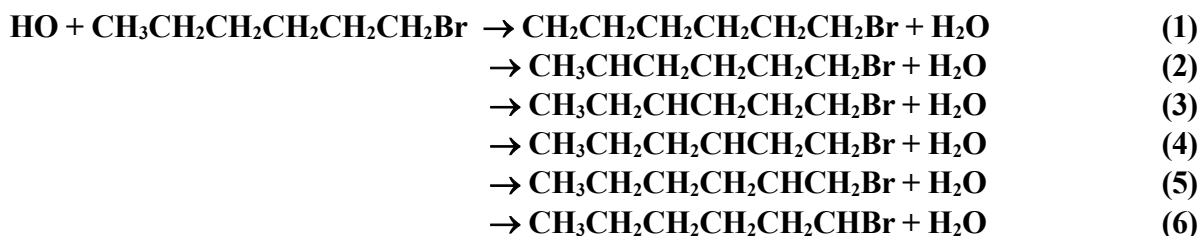


## IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation - Data Sheet oBrOx23; VII.A3.8

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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 ( $k = k_1 + k_2 + k_3 + k_4 + k_5 + k_6$ )

$k/\text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	$T/\text{K}$	Reference	Technique/ Comments
<i>Relative Rate Coefficients</i>			
$(5.48 \pm 0.19) \times 10^{-12}$	306	Donaghy et al. (1993)	RR (a)

### Comments

- (a) The rate coefficient ratio  $k(\text{HO}+\text{C}_6\text{H}_{13}\text{Br})/k(\text{HO}+\text{cyclohexane}) = 0.763 \pm 0.027$  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	$T/\text{K}$
$k / \text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	$5.5 \times 10^{-12}$	298
<i>Reliability</i>		
$\Delta \log k$	$\pm 0.20$	298

### Comments on Preferred Values

The rate coefficient reported by Donaghy et al. (1993) at 306 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.