## CMD Data Reporting Sheet GPP

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**Project title:** GPP11, Ozone oxidation of selected Alkenes: The fate of the Criegee radicals  
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### Reaction Products yields

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| Alkenes +O₃ + H₂O = peroxidic products | Up to 25 % H₂O₂  
Up to 40% HMHP | 1b |

### Mechanistic information

Influence of water vapour concentration on the formation of H₂O₂, HMHP (hydroxy-methyl hydroperoxide) and other HAHP (hydroperoxy alkyl hydroperoxides):

\[
\text{RRCOO + H}_2\text{O} \rightarrow \text{RCOR} + \text{H}_2\text{O}_2 \\
\rightarrow \text{RR'}\text{C(OH)OOH} \rightarrow \text{RR'}\text{H} \rightarrow \text{RCOOH} + \text{H}_2\text{O} \\
\rightarrow \text{RR'}\neq \text{H} \rightarrow \text{RCOR} + \text{H}_2\text{O}_2
\]

### Products

Peroxidic (H₂O₂, HMHP, and HAHP) products of wet ozonolysis of 12 anthropogenic and 13 biogenic alkenes were measured. Results are summarized in Table 1 of the CMD Annual report 1999.

### Ref., remarks

1b, 2a  

1b  


2a  