These are chlorotrifluoropropene (HCFO-1233) and bromotrifluoropropene (HBFO-1233). Both are oxidised rapidly in the lower atmosphere with atmospheric lifetimes of 26 days\(^1\) and 7 days\(^2\), respectively; hence both are very short lived substance (VSLS)\(^3\) that, in view of their minimal effect on stratospheric ozone, are not listed as Ozone Depleting Substances in the Montreal Protocol.

It takes several months for a substance released in northern temperate regions of the world to be transported through the lower atmosphere before it is injected into the stratosphere. Consequently, very little of these halopropenes can be transported to the ozone layer. For material emitted between 30° and 60°N, the Ozone Depletion Potential (ODP) of HCFO-1233zd(E) is 0.00034\(^4\) and, on the same basis, that of HBFO-1233xf(B) is 0.0028\(^2\).

Due to their very short atmospheric lifetimes, these substances do not accumulate in the atmosphere and the global warming potentials (GWPs) of both substances are less than 1\(^4,5\) (that is less than carbon dioxide at the 100 year time horizon).

The authors of the papers which reported these data stated that, “The short lifetime, low ODP, and low GWP indicate that [these substances] should have minimal effects on ozone and climate.”

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