Conversion Factors Between ppb and μg m^{-3} and ppm and mgm^{-3}

On the UK Air Quality Archive, and for reporting data to the European Commission, the appropriate conversion factors at 20°C and 1013 mb are used.

Pollutant	EC 20 °C and 1013mb	WHO 25°C and 1013mb
Ozone	1 ppb = 2.00 μg m^{-3}	1 ppb = 1.96 μg m^{-3}
Nitrogen dioxide	1 ppb = 1.91 μg m^{-3}	1 ppb = 1.88 μg m^{-3}
Carbon monoxide	1 ppm = 1.16 mg m^{-3}	1 ppm = 1.15 mg m^{-3}
Sulphur dioxide	1 ppb = 2.66 μg m^{-3}	1 ppb = 2.62 μg m^{-3}
Benzene	1 ppb = 3.25 μg m^{-3}	1 ppb = 3.19 μg m^{-3}
1,3-butadiene	1 ppb = 2.25 μg m^{-3}	1 ppb = 2.21 μg m^{-3}

NOx in μgm^{-3} is expressed as NO_2. i.e. (NO ppb + NO_2 ppb) * 1.91 = NOx μgm^{-3}.

In the UK gravimetric equivalent PM10 data are calculated from TEOM monitoring data by applying a default factor of 1.3.