

## G1: Air Quality Standards

**Table G1** sets out the limit values of the CAFE Directive, as derived from the Air Quality Framework Daughter Directives. Limit values are presented in micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ) and parts per billion (ppb). The notation PM10 is used to describe particulate matter or particles of ten micrometres or less in aerodynamic diameter. PM2.5 represents particles measuring less than 2.5 micrometres in aerodynamic diameter.

**Table G1 Limit Values of Directive 2008/50/EC, 1999/30/EC & 2000/69/EC (Source EPA)**

Pollutant	Limit Value Objective	Averaging Period	Limit Value ( $\mu\text{g}/\text{m}^3$ )	Limit Value (ppb)	Basis of Application of Limit Value	Attainment Date
Sulphur dioxide (SO <sub>2</sub> )	Protection of Human Health	1 hour	350	132	Not to be exceeded more than 24 times in a calendar year	1 <sup>st</sup> Jan 2005
Sulphur dioxide (SO <sub>2</sub> )	Protection of human health	24 hours	125	47	Not to be exceeded more than 3 times in a calendar year	1 <sup>st</sup> Jan 2005
Sulphur dioxide (SO <sub>2</sub> )	Protection of vegetation	Calendar year	20	7.5	Annual mean	19 <sup>th</sup> Jul 2001
Sulphur dioxide (SO <sub>2</sub> )	Protection of vegetation	1 <sup>st</sup> Oct to 31 <sup>st</sup> Mar	20	7.5	Winter mean	19 <sup>th</sup> Jul 2001
Nitrogen dioxide (NO <sub>2</sub> )	Protection of human health	1 hour	200	105	Not to be exceeded more than 18 times in a calendar year	1 <sup>st</sup> Jan 2010
Nitrogen dioxide (NO <sub>2</sub> )	Protection of human health	Calendar year	40	21	Annual mean	1 <sup>st</sup> Jan 2010
Nitrogen monoxide (NO) and nitrogen dioxide (NO <sub>2</sub> )	Protection of ecosystems	Calendar year	30	16	Annual mean	19 <sup>th</sup> Jul 2001
Particulate matter 10 (PM <sub>10</sub> )	Protection of human health	24 hours	50	-	Not to be exceeded more than 35 times in a calendar year	1 <sup>st</sup> Jan 2005
Particulate matter 2.5 (PM <sub>2.5</sub> )	Protection of human health	Calendar year	40	-	Annual mean	1 <sup>st</sup> Jan 2005
Particulate matter 2.5 (PM <sub>2.5</sub> ) Stage 1	Protection of human health	Calendar year	25	-	Annual mean	1 <sup>st</sup> Jan 2015
Particulate matter 2.5 (PM <sub>2.5</sub> ) Stage 2	Protection of human health	Calendar year	20	-	Annual mean	1 <sup>st</sup> Jan 2020
Lead (Pb)	Protection of human health	Calendar year	0.5	-	Annual mean	1 <sup>st</sup> Jan 2005
Carbon Monoxide (CO)	Protection of human health	8 hours	10,000	8,620	-	1 <sup>st</sup> Jan 2005

Pollutant	Limit Value Objective	Averaging Period	Limit Value ( $\mu\text{g}/\text{m}^3$ )	Limit Value (ppb)	Basis of Application of Limit Value	Attainment Date
Benzene ( $\text{C}_6\text{H}_6$ )	Protection of human health	Calendar Year	5	1.5	-	1 <sup>st</sup> Jan 2010

The Ozone Daughter Directive 2002/3/EC is different from the other Daughter Directives in that it sets target values and long-term objectives for ozone rather than limit values. **Table G2** presents the limit and target values for ozone.

**Table G2 Target values for Ozone Defined in Directive 2008/50/EC**

Objective	Parameter	Target Value for 2010	Target Value for 2020
Protection of human health	Maximum daily 8 hours mean	120 $\text{mg}/\text{m}^3$ not to be exceeded more than 25 days per calendar year averaged over 3 years	120 $\text{mg}/\text{m}^3$
Protection of vegetation	AOT <sub>40</sub> * calculated from 1-hour values from May to July	18,000 $\text{mg}/\text{m}^3\cdot\text{h}$ averaged over 5 years	6,000 $\text{mg}/\text{m}^3\cdot\text{h}$
Information Threshold	1-hour average	180 $\text{mg}/\text{m}^3$	-
Alert Threshold	1-hour average	240 $\text{mg}/\text{m}^3$	-

\*AOT<sub>40</sub> is a measure of the overall exposure of plants to ozone. It is the sum of the excess hourly concentrations greater than 80  $\mu\text{g}/\text{m}^3$  and is expressed as  $\mu\text{g}/\text{m}^3$  hours.