

## Air quality standards

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## Air quality standards

The European Union (EU) has developed an extensive body of legislation which establishes standards and objectives for a number of pollutants in air.

The EU's air quality directives (2008/50/EC Directive on Ambient Air Quality and Cleaner Air for Europe and 2004/107/EC Directive on heavy metals and polycyclic aromatic hydrocarbons in ambient air) set pollutant concentrations thresholds that shall not be exceeded in a given period of time. In case of exceedances, authorities must develop and implement air quality management plans. These plans should aim to bring concentrations of air pollutants to levels below the limit and target values.

Selected EU standards and the World Health Organization (WHO) guidelines are summarised in the table below. These apply over differing periods of time because the observed health impacts associated with the various pollutants occur over different exposure times.

The WHO guideline values are set for the protection of health, and are generally stricter than the comparable politically agreed EU standards.

EU Air Quality Directive				WHO Guidelines	
Pollutant	Averaging Period	Objective and legal nature and concentration	Comments	Concentration	Comments
PM <sub>2.5</sub>	Hourly			25 µg/m <sup>3</sup>	99th percentile (3 days/year)
PM <sub>2.5</sub>	Annual	Limit value, 25 µg/m <sup>3</sup>		10 µg/m <sup>3</sup>	
PM <sub>10</sub>	Hourly	Limit value, 50 µg/m <sup>3</sup>	Not to be exceeded on more than 35 days per year	50 µg/m <sup>3</sup>	99th percentile (3 days/year)
PM <sub>10</sub>	Annual	Limit value, 40 µg/m <sup>3</sup>		20 µg/m <sup>3</sup>	
O <sub>3</sub>	Maximum daily 8-hour mean	Target value, 120 µg/m <sup>3</sup>	Not to be exceeded on more than 25 days per year, averaged over three years	100 µg/m <sup>3</sup>	
NO <sub>2</sub>	Hourly	Limit value, 200 µg/m <sup>3</sup>	Not to be exceeded on more than 18 times a calendar year	200 µg/m <sup>3</sup>	
NO <sub>2</sub>	Annual	Limit value, 40 µg/m <sup>3</sup>		40 µg/m <sup>3</sup>	

**Source:** EU Air Quality Directive (2008/50/EC), WHO, 2006, Air quality guidelines: Global update 2005.

[Click on the table for larger version.](#)

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## Temporal coverage

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