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Ozone test according to EN/IEC 60335-2-65 of the air cleaner "Blueair", model 201

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Object and assignment

Air cleaning instrument Blueair, model 201, type AV201, submitted by the commissioner and tested as received. The assignment was to measure possible formation of ozone according to EN/IEC-standard 60335-2-65, § 32.

Method

The test was performed in a closed chamber with the dimensions 3,0 x 3,5 x 2,5 meters (width x length x height) with walls covered by plastic foil. Chamber climate during the testing was approximately 25 °C and approximately 50% relative humidity ($\pm 2^\circ\text{C}$ and 5% RH, respectively). The air cleaner was placed in the middle of the chamber and the measurement was undertaken in the outlet air on the upper side of the instrument. Effect level 1 of three was used. (According to the manufacturer's information, this setting only affects the air flow.)

Concentration of ozone was measured with a freshly calibrated ozone monitor with UV detection (Environment, model O₃ 42M, SP inventory no 301185). The calibration is traceable to NIST.

Immediately prior to the test period of 24 hours, background level of ozone in the chamber was measured. Thereafter the ozone concentration was measured continuously 5 cm from the air cleaner's out flow through an ozone-conditioned PTFE tubing. The ozone concentration after 24 hours was recorded. The background concentration was subtracted from the resulting concentration.

Results


Background ozone concentration at the beginning of the test [ppb]:	<1
Concentration in the outblow air after 24 hours of operation [ppb]:	<1
Concentration difference during the time of the testing [ppb]:	<1

Uncertainty of the measurement is estimated to ± 1 ppb. (1 ppb = 0,001 ppm)

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