

Red Bull take action to protect their drivers as new analysis finds London in-car NO₂ levels can be four times WHO limit

- **Red Bull take pioneering step to install *AirBubbl* devices in fleet of 21 cars to protect drivers from air pollution.**
- **New analysis finds that parts of central London have average in car nitrogen dioxide (NO₂) levels almost four times the WHO limit.**
- **Average in car NO₂ levels in London found to be almost double WHO limit.**
- **Comprehensive analysis based on almost 150,000 data points from 28 roadside monitoring stations over a year.**

Red Bull, the international energy drinks company, have installed air filtration devices into a fleet of new cars to protect their drivers from pollution, as new analysis has found that in-car NO₂ levels in central London can be as much as four times the WHO limit.

The analysis, conducted by Airlabs, a leading pioneer in clean air technology, found that the average concentration of NO₂ that can be expected inside a car on the road in central London during working hours is 72 micrograms per cubic metre of air (µg/m³), which is 1.8 times the WHO recommended annual guideline value of 40 µg/m³.²

The highest reading came from King William Walk in Greenwich, which was almost four times the WHO limit, with an average concentration of 156 µg/m³ during working hours. Roehampton Lane in Wandsworth and Holloway Bus Garage in Islington were also highlighted in the analysis as particular areas where NO₂ levels were of serious concern.

In a car cabin the level of NO₂ can be up to 70% higher than for pedestrians, due to harmful gases and particles being emitted from surrounding vehicle exhausts in close proximity. These extreme pollution flows can pass straight through standard car air filters and lead to much higher concentrations in the cabin than on the pavement further away from these sources.³

The analysis is based on 145,000 data points from 28 air monitoring devices across the Borough of London on weekdays between 9am and 5pm, over the 12 months from October 2018 – October 2019.

¹<https://greenhousepr.sharepoint.com/:b/s/Airlabs/Ef1v6qDFda1KtpGHrGKUVd8BWDi7ffpWlw7NnXaFBNAWPg?e=ZYTArJ>

² Data pulled from Breathe London stationary network. In-road pollution levels extrapolated according to Zagury et al. (2002) for NO₂ and Adams et al. (2001) for PM2.5.

³ "Levels of ambient air pollution according to mode of transport: a systematic review.", Cepeda et al. 2017

Marc Ottolini, CEO of Airlabs, the company that completed the analysis, said: “People assume that their car protects them from the air pollution in our cities, but the opposite is true, as levels of NO₂ have been found to be up to 70% higher in vehicles than outside.

“This comprehensive new analysis shows that using your car in central London poses serious health risks to drivers.

“Any business that regularly sends its drivers into urban areas across the UK has a clear responsibility to protect the health of its staff, so it’s inspiring to see a company the size of Red Bull taking this essential step to safeguard their employees.”

Long-term exposure to NO₂ has been directly linked to decreased lung function in school aged children, lung cancer, low birth weight of newborns⁴ and cardiovascular mortality⁵, as well as increasing the risk of respiratory problems.⁶

With the UK currently in an air pollution crisis, drivers are at risk not just from NO₂, but also dangerous particulate matter, which has been linked to brain cancer,⁷ respiratory and cardiovascular problems,⁸ as well as septicaemia, kidney failure, skin infections, Parkinson’s disease and urinary tract infections.⁹

Red Bull has taken action to protect the health of its employees by installing Airlabs’ *AirBubbl* devices in 21 new Skoda Scala cars. The cars will be driven by the Red Bull Musketeers – their on trade sales team – in central London and across the UK.

The *AirBubbl* mitigates the impact of air pollution by removing up to 95% of harmful particulate matter and dangerous gases from a vehicle. By installing the devices, Airlabs have found that Red Bull will reduce average NO₂ concentration levels for their drivers in central London to 12.2 µg/m³, almost a quarter of the WHO limit.¹⁰

David Oliver, procurement manager at Red Bull, said: “We’ve become really aware and concerned about the air pollution crisis which is affecting cities across the UK. Our Red Bull Musketeers spend a lot of time driving in cities and their health and wellbeing is vitally important to us, so installing an *AirBubbl* in all of our new cars is a positive step to look after our staff, as any responsible business should.

“The move is part of our commitment to make our fleet greener and reduce our contribution to air pollution. With the purchase of these 21 Skoda Scalas we’re moving away from diesel

⁴ "Air pollution in perspective: Health risks of air pollution expressed in equivalent numbers of passively smoked cigarettes", van der Zee et al. (2016)

⁵ "Nitrogen dioxide and mortality: review and meta-analysis of long-term studies", Faustini et al. (2014)

⁶ http://www.euro.who.int/_data/assets/pdf_file/0005/112199/E79097.pdf

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<https://www.theguardian.com/environment/2019/nov/13/air-pollution-particles-linked-to-brain-cancer-in-new-research>

⁸ <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>

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<https://www.theguardian.com/environment/2019/nov/27/impact-of-air-pollution-on-health-may-be-far-worse-than-thought-study-suggests>

¹⁰<https://greenhousepr.sharepoint.com/:b:/s/Airlabs/Ef1v6qDFda1KtpGHRGKUVd8BWDi7ffpWlw7NnXaFBNAWPg?e=ZYTArJ>

to cleaner low carbon and low NO₂ petrol fuel as well as looking to move to a fully electric fleet in the next 5 years across all our 200-strong UK fleet.

“We’ll also be making the rest of the business aware of the best ways to help mitigate their exposure to air pollution when travelling to, and around, any UK city on business.”

Fleet drivers, including taxis, delivery vehicles and many others, make up a significant amount of London traffic and spend a substantial amount of time behind the wheel, increasing the health risks from in car pollution.

Air pollution levels have a significant impact on the health of employees, so much so that if *AirBubbls* were used in a fleet of 250 cars, over the course of a year, you could expect up to 30 fewer sick days for the drivers during this time.¹¹

Dr Ian Mudway, Senior Lecturer and air pollution specialist at King's College London, said: “Chronic air pollution exposures contributes to 9,000 premature deaths in London each year and our recent research has found that professional drivers have particularly high exposures¹² for extended durations – with taxi drivers having the greatest exposures.¹³”

“It’s essential that we do more to clean the air in our cities to protect the public, as well as the health of essential workers in the transport sector from this invisible threat.”

The AirBubbl is the only in-car air cleaner that contains patented filtration and air flow technology. It effectively removes harmful particulate matter and gases in minutes, delivering clean air directly to the driver and passengers.

ENDS

For more information, or to speak to a spokesperson from Airlabs, Red Bull or King’s College, please contact:

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About Airlabs

Airlabs is a leading pioneer in clean air technology. With more than 90% of the world’s population exposed to unsafe levels of air pollution, Airlabs’ mission is to deliver measuring, monitoring and cleaning solutions that provide valuable insight, enable action and clean polluted air to make it safe for people to breathe.

Its international team of atmospheric chemistry scientists, airflow engineers and sensor specialists has developed cutting edge and scientifically proven solutions for use by government, business and individuals to tackle the growing problem of urban air pollution.

Airlabs is headquartered in London, has its R&D labs in Copenhagen and also operates from offices in Santa Monica, Boca Raton and Singapore.

¹¹ Based on Hansen & Selte, Air pollution and sick leaves, 1997.

¹²

<https://www.scribd.com/document/271641490/King-s-College-London-report-on-mortality-burden-of-NO2-and-PM2-5-in-London>

¹³

<https://www.bc-legal.co.uk/bcdn/997-291-taxi-drivers-encounter-most-black-carbon-in-latest-king-s-college-study>