



Press release

Aix-en-Provence, France, 23 December 2025

Olythe brings its OCIN₂O detector to the US, the first ‘breathalyzer’ for laughing gas consumption

Olythe, a specialist in human breath analysis, brings its new OCIN₂O detector to the US at NSSF SHOT SHOW 2026. This device simplifies the detection of nitrous oxide (laughing gas), working like a breathalyzer to check for nitrous oxide in exhaled air, helping to reduce incidents linked to the rising consumption of laughing gas in the Western world.

**Guillaume Nesa, founder and CEO of Olythe shall be present at NSSF SHOT SHOW 2026
Venetian Level 1, Booth 43453**

Please write to olythe@licencek.com to pre-book interviews.

To combat the rising consumption of nitrous oxide, French startup Olythe has developed OCIN₂O, a new device to help detect laughing gas consumption, notably among drivers. The device works like a breathalyzer, helping law enforcement overcome prior difficulties in testing for laughing gas abuse.

The rising consumption of nitrous oxide, particularly among the youth, is a growing concern in the United States. An estimated [13 million Americans \(including minors\) have misused nitrous oxide](#) at least once in their lives, with the Annual Report of America’s Poison Centers noting a [58% increase in intentional exposure](#) to laughing gas between 2023 and 2024. Unchecked recreational use carries a number of risks, from nerve damage, paralysis, or even death - the University of Illinois found that deaths linked to nitrous oxide poisoning rose [600% between 2010 and 2023](#).

Such incidents also bear a broader societal cost. A number of people choose to drive after the high of laughing gas, causing road accidents and further fatalities. In Missouri, [a woman was killed after a driver passed out behind the wheel](#). In Europe, [laughing gas-linked traffic fatalities rose 80% in the Netherlands between 2019 and 2021](#).



An attempt to support enforcement

Widely used in medicine and in the food industry, the after-effects of recreational nitrous oxide have been long known. It is particularly unsuited to driving, with its risks of causing dizziness, loss of consciousness and impaired reflexes.

Yet, regulation has long remained difficult. Unlike drunk driving, nitrous oxide consumption is particularly hard to detect, since the gas does not stay for long enough in the bloodstream, limiting the capacities of law enforcement. The OCIN₂O takes another approach, likening N₂O use to roadside checks for alcohol use. Using non-dispersive infrared technology, the device measures N₂O even at very low concentrations, up to five hours after inhalation. This provides law enforcement with a portable, easy-to-use solution to combat N₂O use while driving.

Guillaume Nesa, CEO and founder of Olythe explains, *“Since nitrous oxide is rapidly eliminated by the body, it has been particularly difficult to detect it thus far using traditional means. With OCIN₂O, we propose a non-invasive means of detection, directly in exhaled air. Results are instantaneous, and the portability of this device aims to support prevention and road safety efforts.*

Ongoing cooperation with law enforcement and first responders

Having been piloted in European countries such as Belgium to positive feedback, the device has already attracted strong interest from Canadian authorities to support the training of first responders. For the American market, Olythe is open to assessing demand and putting partnerships and production in place on US territory as needed.

Guillaume Nesa concludes: *“We have already tested the device with law enforcement agencies, particularly in Belgium and Denmark, to positive feedback. We hope that the availability of the OCIN₂O will encourage countries to strengthen legislation around road safety, and reduce the incidents of accidents linked to the use of nitrous oxide.”*

About Olythe



Olythe, a specialist in human breath analysis, was founded in 2013 to design and manufacture accurate, modular gas detection solutions in France. A pioneer in the use of miniaturised infrared spectroscopy, Olythe developed the patented OCIEngine technology, integrated into its next-generation smart breathalyser, OCIGO. Its latest product, the OCISense sensor, offers customised gas analysis capabilities for a wide range of professional applications. Olythe provides customers with tailormade detection solutions, high-level technical support and cutting-edge technology to improve public health and safety. For more information, please visit www.olythe.io/

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