

Oxygen-Supreme sets a new benchmark in sustainable air care following independent carbon life cycle assessment



Dubai, UAE - 10th March 2026 — Fragrance Delivery Technologies (FDT), a global leader in advanced fragrance delivery and odor control solutions, today announced the completion of a comprehensive Carbon Life Cycle Assessment (LCA) for its Oxygen-Supreme Dispenser and Grande Cartridge.

The assessment was conducted in collaboration with Carbon Footprint Ltd and aligns with ISO 14067 and Greenhouse Gas Protocol standards. The results confirm significantly lower embodied emissions compared with conventional aerosol air freshener systems.

Fragrance Delivery Technologies' **Oxygen-Supreme** is a patented, fragrance delivery system designed for constant, consistent scenting in commercial environments. Using advanced fuel-cell technology, it delivers continuous fragrance release without aerosols, solvents, or compressed gases, ensuring superior scent performance, odor control, improved indoor air quality, and a lower environmental footprint. The system is paired with **Grande fragrance cartridges**, which contain 100% fragrance oil with an inbuilt malodor eliminator and are designed to be recyclable at the end of their lifecycle, supporting circular economy goals. Oxygen-Supreme is widely used across hospitality, healthcare, and commercial spaces for its reliability, efficiency, and sustainability benefits.

The independent study evaluated the environmental impact of both products across their full life cycles, from raw material extraction and manufacturing to distribution, use, and end-of-life, reinforcing FDT's commitment to transparency, sustainability, and responsible innovation.



Key Highlights from the Assessment Include:

- **Zero emissions associated with Product Use**

Conventional aerosol air fresheners use propellants to expel the fragrance, resulting in emissions during product use. In contrast, the Oxygen-Supreme system does not use propellants in the fragrance formulation. Instead, it uses a patented fuel-cell mechanism that generates a small, continuous amount of oxygen to create the pressure required to release the fragrance.

The Life Cycle Assessment found that because of this unique technology and lack of propellants, the usage emissions over the air fresheners' lifetime are zero.

- **Grande Cartridges – Significantly lower embodied emissions from Raw materials than 100 ml Aerosols**

The assessment found that the embodied emissions associated with the raw materials used in the Grande fragrance cartridge are approximately 70% lower than those of typical 100 ml aerosol refill products.

Unlike conventional aerosols, which contain fragrance oil mixed with propellants and solvents in a pressurized metal can, the Grande cartridge contains 100% fragrance oil and uses significantly less packaging material. Its lighter weight also contributes to lower transportation emissions per tonne-km.

- **Even Lower Embodied Emissions from Raw Materials Compared to 250 ml Aerosols**

When compared to larger 250 ml aerosol refill products, the Grande cartridge demonstrates approximately 88% lower embodied emissions associated with raw materials. In addition to being physically smaller, each Grande cartridge contains 100% pure fragrance oil, with no propellants or added solvents, and can be programmed to operate for 30, 60, or 90 days. This smart, controlled dispensing ensures superior, continuous fragrance performance while significantly reducing packaging weight, material use, and overall environmental impact.

- **Significantly Lower Product Carbon Footprint**

The study found that the total cradle-to-grave carbon footprint of a Grande fragrance cartridge is approximately 1.22 kgCO₂e, while the Oxygen-Supreme dispenser has a cradle-to-gate footprint of approximately 2.76 kgCO₂e. Industry product carbon footprint benchmarks for comparable medium-complexity dispensers can exceed 16 kgCO₂e per unit, indicating that the Oxygen-Supreme system may achieve approximately 80% lower embodied carbon.

These results demonstrate how material efficiency, propellant-free technology, and controlled fragrance delivery can contribute to a lower overall environmental impact compared with conventional aerosol systems.





- **Recycling Supports Further Emissions Reduction**

By choosing to recycle Grande Cartridges instead of disposing of them as general waste, customers can reduce their supply chain emissions (Scope 3) by up to 28%. Recycling lowers the need for virgin materials, cutting emissions across plastics, paper, and rubber production, while supporting circular economy and responsible waste management goals.

“Completing this Carbon Life Cycle Assessment marks a significant milestone in our sustainability journey and reinforces our commitment to responsible innovation,” said **Hydros Jassem**, Chief Executive Officer, Fragrance Delivery Technologies. “We are proud to deliver solutions that combine superior performance with measurable environmental benefits for our customers.”

“Our customers are increasingly seeking transparent, data-backed solutions that help them meet their own sustainability goals,” said **Nupur Saxena**, VP of Marketing and Product Management, Fragrance Delivery Technologies. “This assessment allows us to clearly demonstrate how Oxygen-Supreme and Grande cartridges reduce environmental impact across the product lifecycle, from production to use and end-of-life.”

FDT encourages customers and partners to participate in its sustainability journey by supporting cartridge recycling initiatives and choosing advanced fragrance technologies that reduce emissions across the product lifecycle.

The Carbon Life Cycle Assessment report is available upon request.

Company Profile

Fragrance Delivery Technologies (FDT), headquartered in Dubai, UAE, specializes in developing advanced odor control and air freshening solutions powered by its patented Oxy-Gen Powered[®] technology. Its innovative product portfolio, including Oxygen-Supreme, Oxygen-Scentinel, Oxygen-Pro, VIVA!e and SHIELD, is trusted in over 72 countries to deliver effective, reliable, and sustainable odor control across hospitality, healthcare, and commercial environments.

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