

Baxter

ZeoSys
Medical GmbH

Sustainable Anaesthesia With The CONTRAfluran™ Gas Capture System



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Let's clear the air.

Baxter is proud to announce a new partnership with ZeoSys that will allow hospitals to capture exhaled anaesthetic gases, preventing their release into the atmosphere!

Introducing the new CONTRAfluran™ Anaesthetic Gas Capture System:

- ✓ Innovation
- ✓ Ease-of-use
- ✓ 99%¹ capture of a patient's exhaled anaesthetic gas in the operating theatre, reducing the hospitals' greenhouse gas footprint²

At Baxter, we take our corporate responsibilities seriously, and we constantly aim to meet our mission to save and sustain lives.



**Sustainable
anaesthesia**



**How CONTRAfluran™
works**



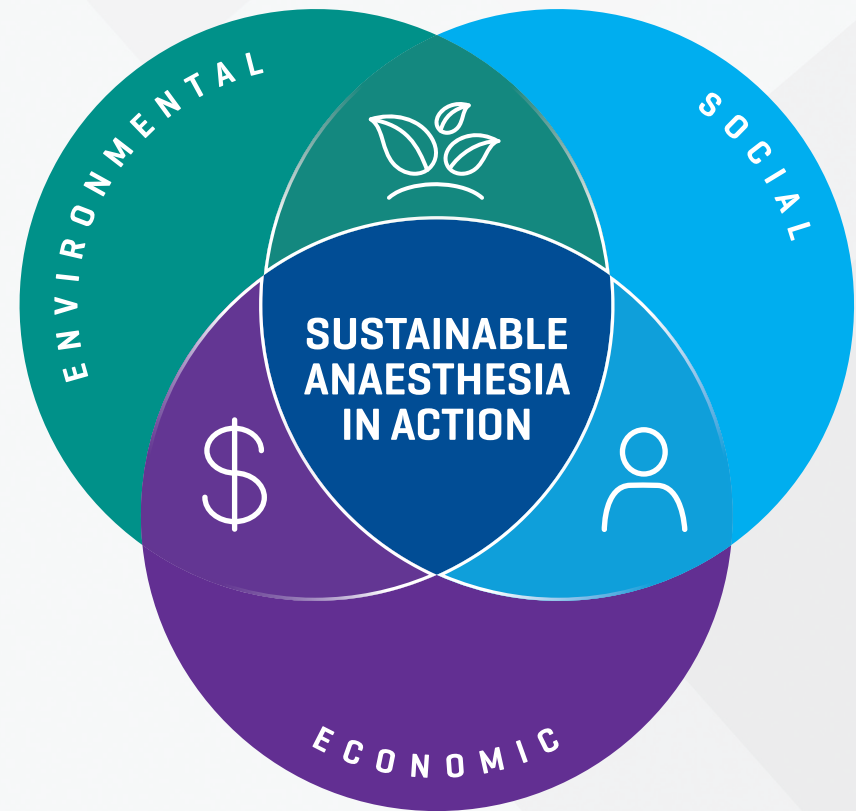
**CONTRAfluran™
environmental benefit**



**Suprane (desflurane)
clinical and economic
benefits**

What Is “Sustainable” Anaesthesia?

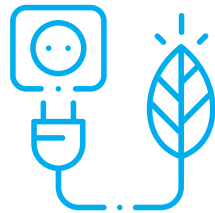
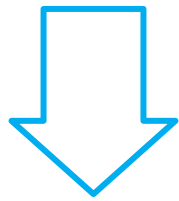
Reaching sustainability requires an acceptable balance of environmental, social and economic factors. CONTRAfluran™ captures 99%¹ of a patient’s exhaled anaesthetic gas in the operating theatre, thereby preventing their release into the atmosphere and giving clinicians the choice of the anaesthetic gas best for the patient.^{3,4}



Baxter Is Committed

to delivering life-sustaining products while simultaneously working to minimize the impact these products have on the environment. We strive to use energy, water, and raw materials efficiently, while reducing waste and greenhouse gas (GHG) emissions.

15%
REDUCTION
in GHG emissions
globally^{5*}



94%
ELECTRICITY from
renewable sources
in Europe⁵

8%
REDUCTION
in water
consumption
globally^{5†}



Baxter is recognized as a **leader in climate impact** by the Carbon Disclosure Project (CDP), a non-profit organization which drives companies to build a truly sustainable economy.⁶

Baxter has reported on the Carbon Disclosure Project (CDP) since its inception in 2002, and rated as A/A- leadership position for the last 5 consecutive years.⁶



*Compared with 2015.

†Compared with 2015 and indexed to revenue.

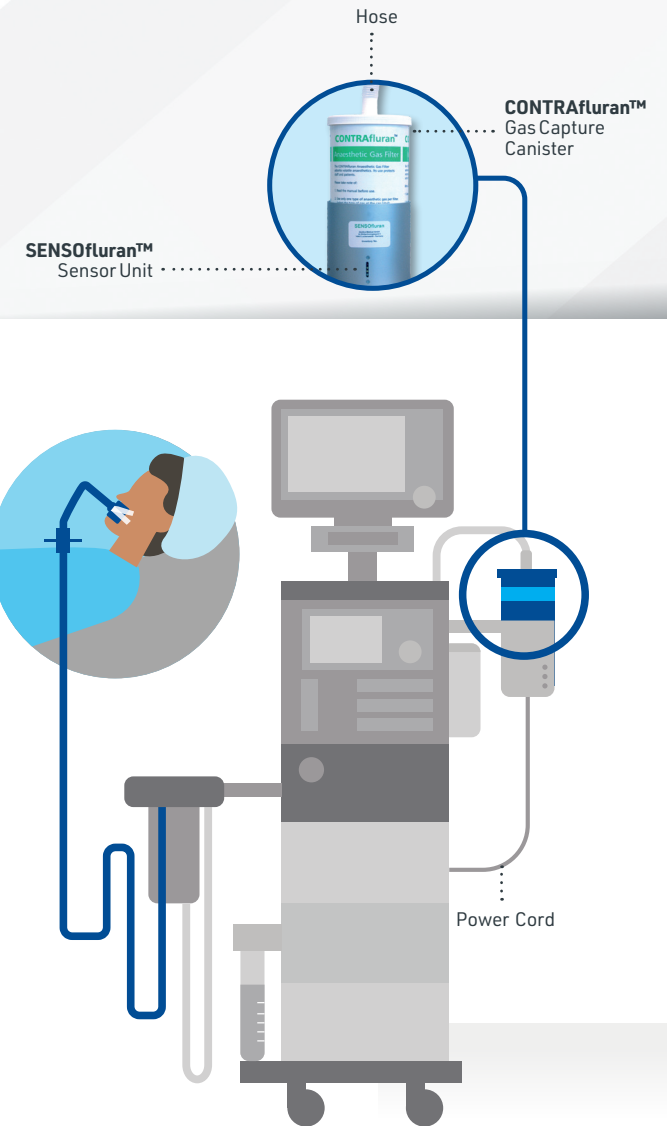
How CONTRAfluran™ Works

Anaesthetic gas capture allows hospitals to collect exhaled Suprane (desflurane) and sevoflurane in the operating theatre instead of expelling gas into the atmosphere, thereby reducing a hospital's greenhouse gas footprint from anaesthetic gases.²



The CONTRAfluran™ Gas Capture System

- ✓ Captures both sevoflurane and Suprane (desflurane), preventing their release into the atmosphere
- ✓ Easy-to-use indicator and audible alarm signify when the canister is full and needs replacement
- ✓ Simple-to-install, space-efficient system for the operating theatre
- ✓ Potentially reduces energy consumption and costs associated with an Anaesthetic Gas Scavenging System (AGSS)
- ✓ In one case study, the ppm levels of sevoflurane in the anesthetist's working space within the operating theatre were below the National Institute for Occupational Safety and Health (NIOSH) recommendation limit of 2 ppm⁷



For safe and proper use of the products mentioned herein, please refer to the Instructions for Use for CONTRAfluran™ and SENSOfluran™ before use. Available on request.

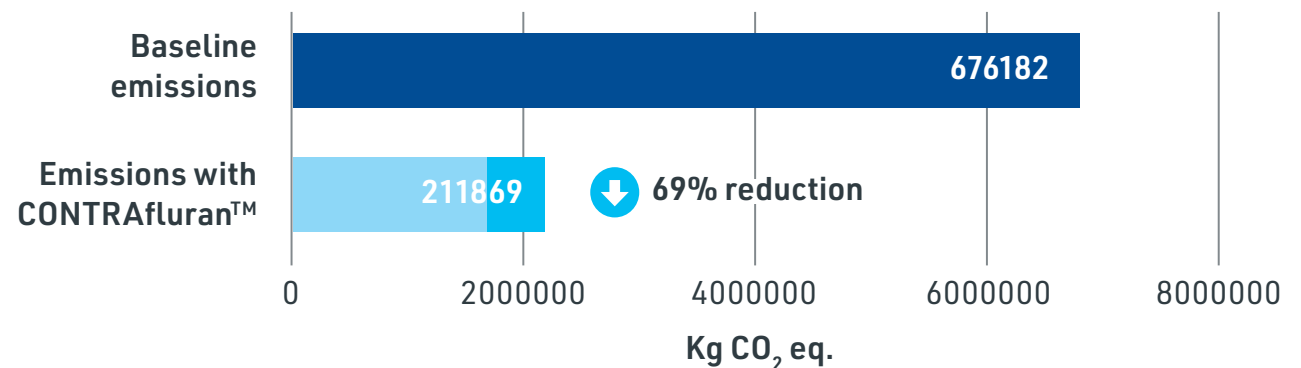
CONTRAFluran™ Can Help Reduce Your Carbon Footprint

Baxter commissioned an independent life cycle assessment on the CONTRAFluran™ Anaesthetic Gas Capture System. This assessed the benefits of the technology on reducing hospital emissions as well as the carbon impact of the technology itself, compared to baseline without CONTRAFluran™.

Upon regulatory approval of all life cycle stages, the estimated impact will be:^{8*}

69%
REDUCTION
in greenhouse gas emissions after implementing the CONTRAFluran™ system compared to baseline^{8*}

ANNUAL LIFE CYCLE CLIMATE CHANGE EMISSIONS: 50 OPERATING THEATRES^{8*}



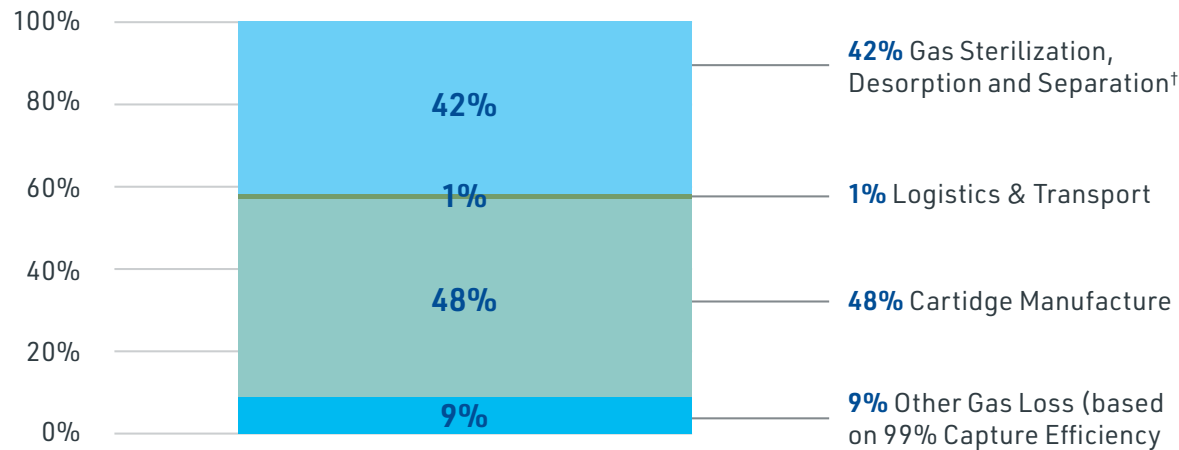
A hospital that chooses to use CONTRAFluran™ to collect sevoflurane or Suprane (desflurane) may notice a significant reduction to their greenhouse gas footprint²

[See breakdown by life cycle stage](#)

*Scenario assumptions: 1) Sevoflurane and desflurane anaesthetic gas emissions with the CONTRAFluran™ technology in use in 50 operating theatres, running at mean operation hours (10.17 hrs/day) for 1 year; 2) Manufacture of sevoflurane and desflurane from data in previous LCA study: sevoflurane - 20.625 kg CO₂ eq per kg; desflurane - 37.25 kg CO₂ eq per kg; 3) Use of an inhaled anaesthetic mix of 66 % sevoflurane, 34% desflurane, with a potential loss included of 25% of both gases after surgery (due to patient retention); 4) Included the impact of savings from switching off hospital scavenging system, which would contribute 43,100 kg CO₂ eq.

We Are Committed To Reducing Climate Impact At Every Life Cycle Stage

CLIMATE CHANGE IMPACT DURING USE OF CONTRAFLURAN™ TECHNOLOGY (ONCE REGULATORY APPROVAL FOR ALL STAGES IS GRANTED)^{8*}



The life cycle stages which contribute most to the carbon footprint of CONTRAfluran™ are the cartridge manufacture and the gas desorption process[†], which can be improved over time

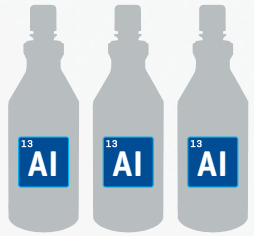
Logistics and Transport utilize existing delivery arrangements (reverse logistics) and contribute less than 1% of emissions

N.B. There is also a carbon 'benefit' of the technology resulting from anaesthetic gas manufacture avoided through re-use.

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[†]Once regulatory approval is granted.

Suprane (desflurane) Clinical and Economic Benefits



Suprane
**BOTTLES ARE
PURE ALUMINUM.**
No other inhaled
anaesthesia container can
be **recycled** as completely.⁹



A possible Suprane
advantage in obese patients:
**LESS RISK OF CRITICAL
RESPIRATORY EVENTS** during early recovery
from anaesthesia as compared to sevoflurane.¹⁴

Suprane helps facilitate
**PRECISE INTRAOPERATIVE
CONTROL AND PREDICTABLE
RECOVERY** for patients of all
current potent halogenated
inhaled anaesthetic
agents.¹⁰⁻¹⁵



Studies have shown that Suprane
demonstrates

**NO GREATER INCIDENCE
OF AIRWAY IRRITATION**

when used with an LMA for maintenance of
anaesthesia in adults compared to sevoflurane.^{21,22}



 **FASTER** **FULL
AMBULANT
RECOVERY.**

For short day-case procedures:

- Randomized controlled studies have shown that the time to eye opening and orientation following anaesthesia were significantly faster in the Suprane group when compared to other volatile anaesthetics¹⁶⁻²⁰
- A greater number of patients treated with Suprane may return to normal activities the next day following a procedure^{16,19}



Compared to isoflurane and sevoflurane,
in the referenced studies, more

RAPID RECOVERY

allows rapid transfer from the operating theatre to the
awakening room, bringing operational benefits.^{23,24}

Suprane (desfluran), inhalationsång, vätska.

Rx. EF. ATC-kod: N01AB07. Anestetika.

Indikationer: Underhåll (barn och vuxna) av inhalationsanestesi med spontan eller kontrollerad ventilation. Desfluran är indicerat för inandning som induktion och/eller som underhåll av anestesi för patienter i slutenvården och för poliklinisk kirurgi hos vuxna och som underhåll av anestesi i slutenvård och öppen barnkirurgi. Rekommenderas inte för induktion av anestesi hos barn.

Kontraindikationer: Känd överkänslighet för halogenerade inhalationsanestetika, verifierad eller misstänkt genetisk benägenhet för malign hypertermi, sjukdomshistoria med bekräftad hepatit orsakad av halogenerade anestetika för inhalation eller måttlig till svår oförklarlig leverdysfunktion efter anestesi med halogenerade inhalationsanestetika. Kontraindicerat för induktion av anestesi hos pediatrika patienter pga. frekvent förekomst av hosta, andningsuppehåll, apné, laryngospasm och ökad sekretion.

Varningar och försiktighet: Hypovolemi bör korrigeras före anestesiinduktion. Hos predisponerade individer kan inhalation av potenta anestesimedel utlösa ett hypermetaboliskt tillstånd i skelettmuskulaturen vilket kan leda till förhöjt syrgasbehov och ett kliniskt syndrom benämnt malign hypertermi. Desfluran har visats vara en potentiell utlösare av malign hypertermi. Ett samband har setts mellan användning av inhalationsanestetika, inklusive desfluran, och sällsynta ökningar av kaliumnivåerna i serum, vilket har resulterat i hjärtarytmier, vissa fatala, hos patienter postoperativt. Desfluran bör inte användas för anestesiinledning hos barn på grund av hög förekomst av hosta, andningsuppehåll, apné, laryngospasm och ökad sekretion. Desfluran ska användas med försiktighet hos barn med astma eller som nyligen haft en infektion i de övre luftvägarna. Ej godkänt för underhållsanestesi hos icke-intuberade barn och försiktighet ska därför vidtas vid sådan användning. Bör för närvarande ej användas i samband med obstetrisk kirurgisk anestesi. Försiktighet bör iaktas vid administrering av desfluran till patienter med medfödd eller förvärvad QT förlängning, hypokalemi eller samtidig användning av läkemedel som likaledes kan orsaka QT förlängning. Cirros, viral hepatit eller andra förekommande leversjukdomar kan vara skäl till att välja andra anestetika än halogenerande anestetika. Desfluran ska inte användas som enda läkemedel för anestesiinduktion till patienter med risk för kranskärlssjukdom eller till patienter där ökad hjärtfrekvens eller förhöjt blodtryck inte är önskvärt. Det ska användas med annan behandling, företrädesvis intravenösa opioider och hypnotika.

Graviditet och amning: Suprane är inte rekommenderat att användas under graviditet. Det rekommenderas inte att använda Suprane under amning.

Effekter på förmågan att framföra fordon och använda maskiner: Desfluran har stor påverkan på förmågan att framföra fordon och använda maskiner. Patienter bör informeras om att förmågan att framföra fordon och använda maskiner kan påverkas efter narkos.

Kontakt:

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För mer information och pris se www.fass.se.

Godkännandedatum för produktresumé: 18 december 2018.





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