

CO₂ REDUCTION

It's In Our Roots

In 2001, tersano established a mission of **Changing the Way the World Cleans** by replacing harmful cleaning chemicals with an environmentally safe and sustainable alternative: **Stabilized Aqueous Ozone (SAO®)**.

Reducing CO₂ with a **closed-loop** system

Even in tasks as routine and familiar as cleaning, tersano's **closed-loop system** supports client's sustainability goals by dramatically reducing CO₂ emissions.

We always knew small changes amount to a big difference, but now **we have proof.**

If the results surprise you, you aren't alone - we couldn't believe it, ourselves!

CO₂ The facts

Carbon dioxide, or CO₂, is a blanketing gas that traps heat to the Earth's surface. It occurs both naturally and as a result of human activity. Naturally, CO₂ results from things like ocean out-gassing, biomass decomposition, and venting volcanoes.¹ The human contribution is largely from industrial activities, like burning fossil fuels or releasing chemicals into the atmosphere which provide an equivalent effect to CO₂, known as CO₂eq.²

The combination of all CO₂-emitting and CO₂eq-emitting is known as a *carbon footprint*. Everyone has a carbon footprint - individuals, businesses, activities, and even inanimate objects - but they come in different shapes and sizes. The less CO₂ emitted, the smaller the footprint, and vice versa.

Why it matters

We can sum it up in two words: **climate change**.

Like a blanket, CO₂ traps heat to the Earth's surface, creating climate change: **an increase in global temperatures**.³ Climate instability due to climate change increases severe weather events.

However, the effects of climate change can lead to significant **unsustainable events for life on Earth**: severe storms, increased droughts, and warming and rising oceans, in turn causing species extinction, fewer food resources, more health risks, economic crises, and population displacement.⁴

There is no sugarcoating it.

Unless someone like you cares a whole awful lot,
nothing is going to get better - it's not.

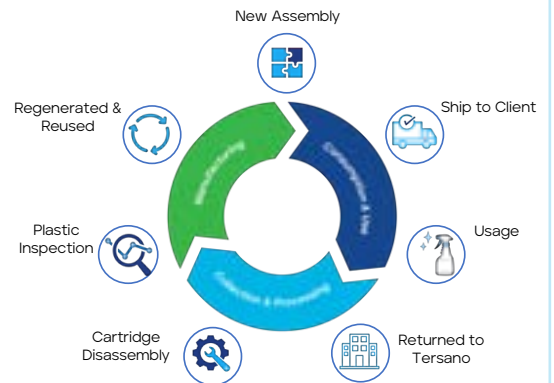
Dr. Seuss' The Lorax

Impact of a closed-loop system

A closed-loop system uses environmentally sustainable supply chains and reusable, renewable and recyclable raw materials to conserve natural resources and reduce pollution and emissions.⁵⁻⁶

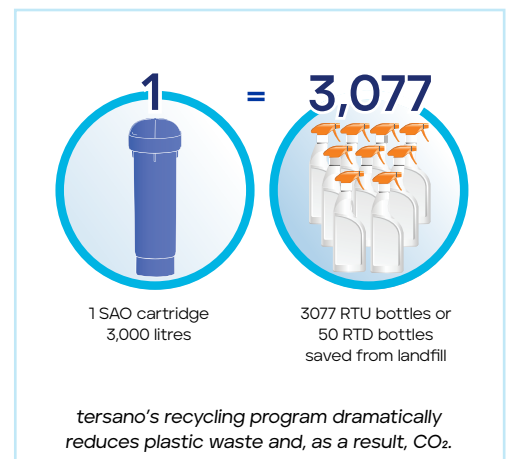
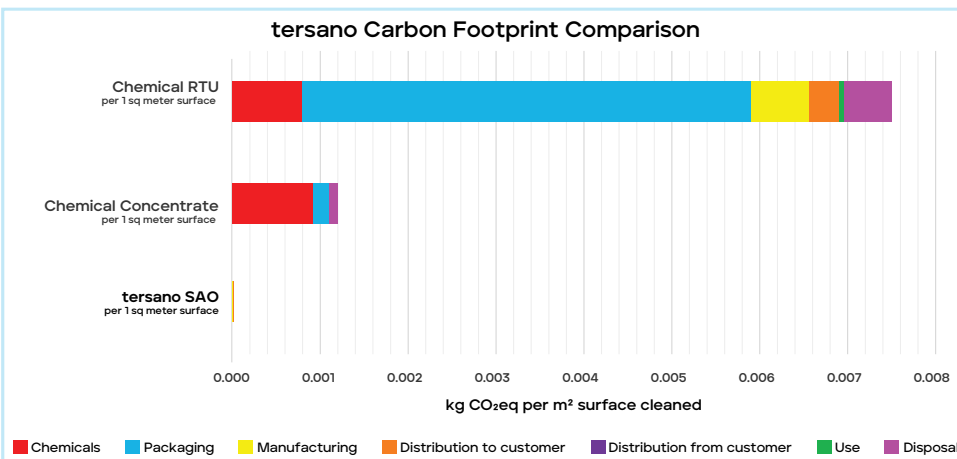
The tersano system is closed-loop, using on-site generation and 100% recyclable SAO cartridges. By switching to the SAO system, clients reduce carbon footprints and prevent hundreds of thousands of kilograms of CO₂ from entering the environment.

Here's the breakdown to CO₂ reduction:



Carbon Footprint

One way to analyze tersano's CO₂ reduction is to compare the **carbon footprint** of a recycled SAO-24 cartridges to the carbon footprint of a generic cleaning chemical:



CO₂ Reduction based on volume

One (1) liter of ready-to-use generic cleaning chemical solution requires 110 grams of CO₂.

Alternatively, 1 liter of ready-to-use SAO solution, dispensed from a recycled SAO-24 cartridge, requires 0.6417 grams of CO₂.

Now you do the math – that’s 109.35 grams less CO₂ per liter, or 328 kilograms less CO₂ per SAO-24 cartridge!⁷

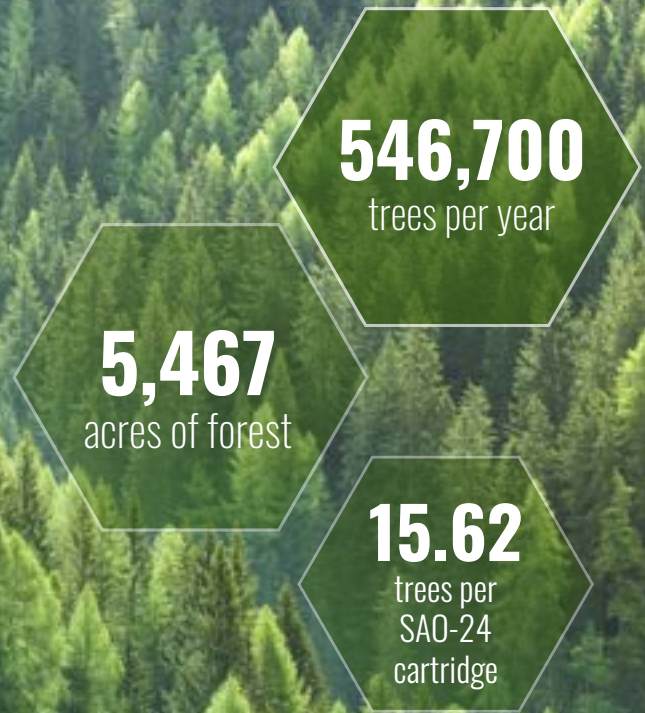
What it all means

When we think of what tersano’s CO₂ reduction really means, we can compare it to Earth’s natural CO₂ absorbers: **trees**.

They may exist quietly in the background but don’t let that fool you; strong and silent, trees are one of the environment’s greatest weapons against climate change, each absorbing over 21 kilograms of CO₂ per year.⁸

If one tree reduces 21 kilograms of CO₂ per year, how many ‘trees’ worth of CO₂ does tersano reduce? Once again, we *did the math!*

Currently, tersano SAO system reduces the same amount of CO₂ yearly as approximately



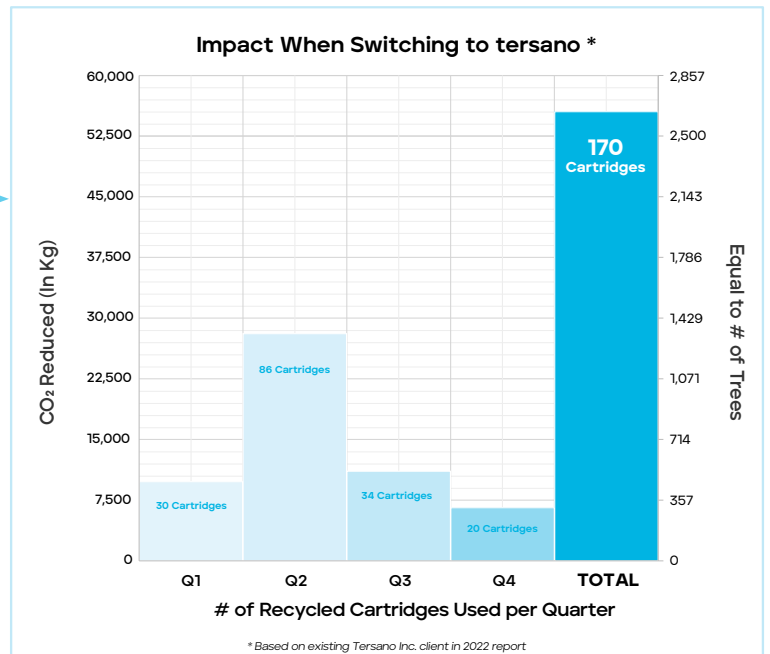
What this can mean for you

Let’s get personal. How much CO₂ can you reduce if you made the switch to tersano’s closed-loop system **today**?

Let’s look at one of our client’s examples from 2022 to get an idea

Numbers don’t lie – even changing something as easy as the way you clean can have a remarkable impact on the future of the planet.

By simply eliminating cleaning chemicals from your business processes, you can start reducing your CO₂ **TODAY**.



Take action NOW



It's not about what it is,
it's about what it can become.



The Lorax

Contact us

wecare@tersano.com · www.tersano.com

About Tersano Inc.

In 2001, tersano was founded on the mission of *Changing the Way the World Cleans* by advancing environmentally safe and sustainable alternatives to traditional cleaning chemicals. tersano manufactures technologies that convert ordinary tap water into **Stabilized Aqueous Ozone (SAO®)**: an all-in-one cleaner, disinfectant, and deodorizer that kills 99.99% of germs without chemicals.

tersano | terra [earth/land] sano [healthy]

References

- 1 Herring, David, "Doesn't carbon dioxide in the atmosphere come from natural sources?" NOAA Climate.gov, published on October 29, 2020, <https://www.climate.gov/news-features/climate-qa/doesnt-carbon-dioxide-atmosphere-come-natural-sources>.
- 2 "Human activities have increased GHG levels and altered global climate patterns," NOAA Climate.gov, accessed on May 8th, 2023, <https://www.climate.gov/teaching/literacy/6-c-human-activities-have-increased-ghg-levels-and-altered-global-climate>.
- 3 "FAQ: What is the greenhouse effect?" NASA, accessed on May 8, 2023, <https://climate.nasa.gov/faq/19/what-is-the-greenhouse-effect/>.
- 4 "The Effects of Climate Change," NASA, published on April 25, 2023, <https://climate.nasa.gov/effects/>.
- 5 "Frequently Asked Questions: Benefits of Recycling," Stanford University, accessed on May 25th, 2023, <https://lbre.stanford.edu/pssistanford-recycling/frequently-asked-questions/frequently-asked-questions-benefits-recycling>
- 6 "Recycling: open-loop versus closed-loop thinking," The Pennsylvania State University, accessed on May 25th, 2023, <https://www.e-education.psu.edu/eme807/node/624>.
- 7 Based on one SAO-24 Cartridge producing 3,000 liters of SAO solution.
- 8 "Trees help tackle climate change," European Environment Agency, published on January 06, 2022, <https://www.eea.europa.eu/articles/forests-health-and-climate-change/key-facts/trees-help-tackle-climate-change>.