



The power of plants  
in every drop



catalogue

- ◆ Formulated using plant extract, enzymes, and microbial friendly bacteria.
- ◆ Highly concentrated range.
- ◆ GOECO wall mounted dispensers provided free on loan controlling over use and in use costs.
- ◆ Packed in 100% recycled containers\*
- ◆ 100% biogradable formulations.
- ◆ Not tested on animals.
- ◆ Blended in the UK.



[www.westchem.co.uk](http://www.westchem.co.uk)

To order: 01395 514624

[info@westchem.co.uk](mailto:info@westchem.co.uk)

\*Excludes Dishwasher detergent packed in a UN approved container.

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# Introduction

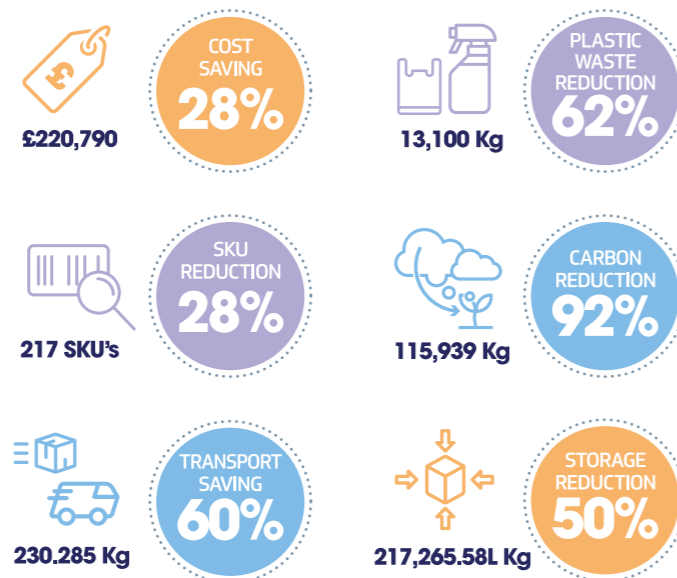
## Why Choose GOECO?

**GOECO launched in 2022, we've helped business reduce their environmental impact by transitioning from harmful, non-renewable chemicals to eco-friendly products designed to meet the needs and demands of the modern world.**

We believe that you don't need to compromise on quality or cost to be sustainable – that GOECO cleaning can be more effective, and easier to use than traditional chemical products.

free from hazardous toxins, our enriched formulas combat odours directly at the source and keeps them at bay long after application. With powerful, long-lasting cleaning action, our multi-purpose biotechnology helps extend product shelf-life, whilst our PCR and FSC packaging works to reduce pollution and sustain the environment.

### The benefits of switching to GOECO



## How cleaning biotechnology works

Cleaning products attack dirt on surfaces by emulsifying, lifting, dispersing, sequestering, suspending and decomposing soils. Active agents (surfactants) stir up activity on surfaces to help trap and remove dirt. Surfactants may act as detergents, wetting agents, emulsifiers, foaming agents, or dispersants.

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Surfactants are a primary component of cleaning detergents. Anionic surfactants (positively charged) are excellent for lifting and susoending particulate soils, while nonionic surfactants (neutrally charged) are very good at emulsifying oils and removing organic soils. They are frequently used together to create multi-purpose cleaners.

Amphoteric surfactants can be anionic, cationic (negatively charged) or neutral. They are often used as co-surfactants because of their mild nature and foam boosting properties. Cationic surfactants are commonly used in fabric softeners, antistatic agents, rinse, corrosion inhibitors, particle dispersants, emulsifiers and biocides.

## Our Technology

**Our market-leading cleaning products harness the power of microbes, enzymes and natural plant extracts that work deep into surface to quickly break down and remove dirt, grime and grease.**

### Microbes

The microbes, specifically bacteria, in GOECO products, are present in the spore form. When the bacteria are introduced to suitable conditions, the spores germinate and the bacteria begins to grow, colonising the area of application.

bacteria can take up into their cells and use for energy and growth. This "feeding" process is what removes organic soiling and prevents unpleasant odours, providing long-term cleaning action.

### Organic Acids

Organic acids, such as lactic acid and citric acid, are produced by fermentation and can therefore be regarded as completely natural products. They are less hazardous than traditional mineral acid alternatives like hydrochloric acid and sulphuric acid, and have far more favourable environmental profiles. Organic acids have excellent cleaning and descaling properties and some are useful disinfectants.

### Plant Extracts

Plant extracts absorb or bind to odiferous molecules, removing unpleasant odours. Others have disinfecting properties, where regulations allow. The benefits of switching to BioHygiene

Enzymes are proteins that speed up biological reactions.

Examples include:

- **Amylase** – breaks down starch
- **Cellulase** – degrades cellulose (e.g. vegetable matter)
- **Lipase** – breaks down fats, oils and greases
- **Protease** – digests proteinaceous matter
- **Uricase** – breaks down uric acid

Like many other bacteria, the bacteria in our products prefer to grow as biofilms on suitable surfaces, making it easy for it to penetrate deep into cracks, crevices and other porous surfaces where traditional cleaning can't reach.

The bacterial population breaks down organic matter by the production and secretion of enzymes. Enzymes help to break down complex molecules into simpler, smaller molecules that

### Free Enzymes

Enzymes are added directly to our formulations, where they are referred to as "free enzymes". They work in exactly the same way as bacterial enzymes, providing immediate action by breaking down organic matter and eliminating odours.

Free enzymes are used in conjunction with bacteria to provide an initial "kick-start" of activity until the microbial population is established and the bacteria start to do their work.

# GOECO

## Ingredient selection

Using biodegradable, sustainable, bio-accumulable ingredients that achieve high performance with minimal human or environmental impact.

Our eco-solvents are made entirely from renewable, biobased resources that replace and reduce conventional solvent and hazardous chemicals and achieve a neutral or positive CO<sub>2</sub>e impact.

We use a combination of Ecotec and Biotech ingredients, including plant extracts, microbes, enzymes and fermentation extracts, all with favourable ecotoxicity profiles and low health hazards.

Our ingredients are first class degreasers and have excellent solvency and soil-penetrating properties, providing a multifunctional cleaning boost and enhancing performance safely and responsibly. They are readily and rapidly biodegradable, carbon-neutral and contain no environmentally hazardous ingredients.

High dispersant power leads to improved product properties and performance. An absence of volatile organic compounds means there are no flammability concerns. Our technology uses powerful chelating

agents to bind hard-water metal ions that interfere with the cleaning process. They are made from natural, biodegradable, renewable raw materials, providing a greener alternative to traditional chelates such as EDTA and NTA.

## Packaging

We pack our products in post-consumer recycled plastic bottles. Bottles that have completed their lifecycle are collected and transported to recycling facilities and made into PCR resin. New bottles are made from PCR resin, providing a circular life cycle. Using PCR bottles helps us stop single-use plastic, reduce physical plastic pollution, and lower CO<sub>2</sub>e by up to 85%.

GOECO is incredibly effective at 'super' concentration levels, which helps to reduce the amount of product needed to achieve a superior clean. When combined with refillable PCR

bottles, our products achieve up to 90% reduction in single-use plastic bottles, transport weight, storage, and overall environmental impact.

We box and ship our products in cardboard made from 80% recycled material. These boxes can be fully recycled and are FSC (Forests for All Forever) certified.





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## Reducing Carbon Emissions

**Many traditional cleaning products contain ingredients from the petrochemical industry. They begin their lives mined from the ground before being converted into chemicals such as Formaldehyde, Kerosene, Mineral Acids, Phosphates, Solvents and many more.**

Alternative eco-focused products, such as GOECO, use a synergistic combination of renewably and sustainably sourced ecotechnology and biotechnology that achieve a superior cleaning performance without causing environmental damage. The cleaning power is driven from microbes, free enzymes and naturally derived ingredients, such as organic acids and plant extracts.

Ingredients are sourced from within Europe and achieve a 75-100% carbon reduction compared to traditional technology. Savings can be as high as 1.3kg CO<sub>2</sub>e / L, equivalent of 475ml of crude oil.

**Using alternative eco-focused products, such as GOECO =**



**Carbon  
Reduction**



**Equivalent of  
475ml of crude oil**



## REDUCTION THROUGH RECYCLING

**It is thought that over 90% of plastics originate from oil, natural gas, and coal - all unrennewable, and damaging to the environment. If no changes are made, the plastic industry will account for 20% of global oil consumption by 2050.**

The creation of virgin plastic is resource intensive and a major contributor to global warming and pollution. For every 1 kg of virgin plastic made, 6 kgs of CO<sub>2</sub>e is released into the atmosphere. An eco-friendly alternative is to utilise PCR plastic to package products. A closed loop system allows used bottles to be recycled, reusing the CO<sub>2</sub>e related costs of disposal while also using less energy and producing less related pollution, resulting in a CO<sub>2</sub>e reduction of up to 85% compared with virgin plastic.

Concentrated products with high dilution rates, up to 1:200, also enables companies to reduce the amount of product needed per clean.

Less product means less plastic use, achieving a further carbon reduction of up to 85%.

### Utilising PCR plastic to package product =



**Compared with virgin pastic**

## REDUCTION THROUGH LOCAL SUPPLY CHAIN AND TRANSPORT

**Statista reports that the transportation sector has been the second-largest source of greenhouse gas (GHG) emissions in the UK for the majority of the past three decades, and the most polluting sector since 2016. As of 2020, transportation accounted for 24.4% of the UK's total emissions.**

Highly concentrated products enable companies to get more out of each use and extend the time between each order, resulting in fewer deliveries and a reduction of carbon from transportation.

Using local suppliers also reduces the number of miles the components of products have to travel, as well as allows the move of goods on more eco-friendly hauliers rather than air or ship. This results in less energy, less air pollution and lower CO<sub>2</sub>e.

### Can this really make a difference?

**An analysis showed that GOECO products has saved customers up to 5kgs CO<sub>2</sub>e for every £1 spent on their cleaning basket, the equivalent of:**



**Growing 8333 trees for 10 years**



**Driving more than 100 cars for a year**



**Electrical use of 85 homes for a year**

## Reducing Single Use Plastic



The issues surrounding plastic bottles – particularly single-use plastic – have intensified in just a few years. Unlike invisible pollutants, such as CO<sub>2</sub>, plastic pollution is visible to all. It is not unusual to see parks, beaches and other areas of natural beauty besieged with disposed plastic bottles.



Plastic bottles take around 450 years to decompose. 7.7 billion plastic bottles are used across the UK every year, and it is thought only 45% of these are recycled with the remainder going into landfill or the ocean.

**Plastic Oceans** report that one million marine animals are killed by plastic pollution every year. They also suggest that 10 million tonnes of plastic are dumped in our oceans annually – with a huge proportion of this weight being single-use plastic bottles.

In the North Pacific alone, an area dubbed the Great Pacific Garbage Patch, contains more than 3 million tonnes of plastic waste, covering an area twice the size of Texas. With no government or organisation to hold directly accountable, the 'island' remains floating in international waters.







## MICROPLASTICS AND HUMAN HEALTH

Microplastics are small pieces of plastic that measure less than 5mm across. Some microplastics are formed after breaking away from larger plastics that have broken down over time, others are made small intentionally. Microplastics are almost impossible to remove from the various environments they accumulate in. Due to this, microplastics have been found almost everywhere including in oceans, on mountains, in the Arctic Sea ice, in the air, and even our bodies.

When microplastics are swallowed by fish, they are introduced into the food chain. Microplastics can carry a range of contaminants, which when digested by humans, can leach into our bodies. Some microplastics have carcinogenic properties and, although the overall risk to human life isn't certain, can increase the likelihood of cancers and infertility.

## REDUCING SINGLE USE PLASTIC

Although we haven't advanced enough to remove plastic entirely, we are able to dramatically reduce our plastic creation. Ready-to-use products and low-dilution concentrate result in more plastic –

whether virgin or PCR. Opting for concentrated products with higher dilution rates can help companies reduce their single use plastic waste by up to 90%.

**PCR provides a significant reduction in the creation of virgin plastic and associated environmental costs. Plastic is recycled, collected locally, and recycled into plastic that can be made into bottles and achieve the following benefits:**



**LESS USE  
OF FOSSIL  
FUELS**



**UP TO 85%  
REDUCTION  
IN CARBON  
EMISSIONS**



**LESS WATER  
& ENERGY  
CONSUMPTION**



**LESS  
PLASTIC  
WASTE**





**Machine Dishwasher Detergent 5L**

Machine dishwasher detergent contains a blend of Eco Friendly ingredients that produce amazing results.



**Machine Rinse Aid 5L**

An Eco friendly formulation that leaves washed items dry, spot free and sparkling.



**Surface Cleaner & Sanitiser 5L**

A natural effective surface cleaner and sanitiser that kills virus, germs and spores.



**Multi-Purpose Detergent 5L**

An effective Eco friendly detergent using plant extract to clean floors and surfaces.



**Washing Up Liquid 5L**

Safe Eco friendly neutral formulation that cuts through grease and protein fast.



**Heavy Duty Floor Cleaner 5L**

That removes grease and dirt and is kind to the environment leaving floors looking super clean.



**Oven & Grill Cleaner 5L**

Removes carbon and grease residual fast on cold ovens.



**Hand Soap 5L**

A naturally derived, pH balanced anti-bacterial hand soap with moisturiser.



**Foam Hand Sanitiser 5L**

A naturally derived, pH balanced anti-bacterial foaming hand sanitiser with moisturiser.

Kitchen

Kitchen





**Glass & Stainless Steel Cleaner 750ml**

Removes atmospheric grime, finger marks and general soiling leaving a sparkling streak-free finish.



**Odour Neutraliser 750ml**

Odour Neutraliser utilises absorbent technology for fast, complete removal of unpleasant odours.



**Wood & Leather Polish 750ml**

Wood and Leather Polish utilises eco friendly surfactants for cleaning and a unique blend of waxes for polishing and protecting surfaces.



**Complete Washroom Cleaner 5L**

An enzyme and microbial biotech product designed to tackle all washroom areas offering superior cleaning and odour control using renewable and sustainable ingredients.



**Urinal & Toilet Cleaner 1L**

Urinal & Toilet Cleaner utilises specific microbes and eco surfactants for cleaning and deodorising urinals and toilets.



**Urinal Bio Blocks 3kg**

Bio Blocks utilise specialist microbes to reduce unpleasant odours and prevent the build-up of organic and inorganic scale in urinal pipework.



**Luxury Hand Soap 5L**

A naturally derived, pH balanced anti-bacterial foaming hand sanitiser with moisturiser.