Sustainable Cleaning

Manufacturers of cleaning products are increasingly aware of the part they need to play to enable users of cleaning products to conduct cleaning operations in a way that is 'environmentally friendly'. But this doesn't just mean using chemical ingredients that are safe for the environment, it means minimising all the many other environmental impacts that arise in making and using cleaning products, such as energy consumption and waste disposal. The term 'improving sustainability' is used to refer to making an improvement in the overall impact of cleaning.

There are three key steps which are required to optimise sustainability:

* Choose products that are designed for sustainability as well as safety
* Work internally and down the supply chain with suppliers to ensure that everyone responsibly manages their manufacturing impacts
* Minimise the environmental impacts that arise during cleaning operations

Defra

As a manufacturer of sustainable eco-safe cleaning products Oleonix follows the best environmental practice as recommended by Defra – the UK Governments Department for Environment, Food and Rural Affairs.

Defra's guidelines state "When a product is being designed and developed, it is the job of the manufacturer to find the optimum balance that ensures effectiveness as well as safety, and minimises the overall environmental impact when properly and diligently used. Selecting ingredients is a critical step in designing a safe and sustainable product. However, ingredients need to be considered not in isolation but as components in a complete formulation. The safety of a product depends not just on the hazards of the individual ingredients but on the levels at which they are used in the product, on how the product is used, how people are exposed to it and on how it is disposed of after use. As well as formulating to ensure safety, manufacturers should look for opportunities to reduce the use of ingredients that are slow to biodegrade, especially any which may have the potential to bioaccumulate, and should favour the use of ingredients where the margins of safety are wide.

Similarly, selecting ingredients only on the basis of their apparent individual sustainability can often reduce the performance of the complete product, increasing total resource consumption. Sometimes, use of a small amount of a seemingly less sustainable ingredient can markedly improve performance and/or allow major reductions in the use of others. It is a common misconception that selecting 'natural' ingredients will inevitably improve the safety and sustainability of a product.

Natural V Synthetic It is a false assumption that an ingredient from a plant or other naturally-derived source will necessarily be superior in terms of human safety, biodegradability, aquatic toxicity and sustainability than one from a petrochemical source.

Vegetable oil raw materials are already extensively used by cleaning product manufacturers. Although 'green purchasing' criteria sometimes specify 'naturally' based materials, each ingredient must be assessed on its individual merit, and on how it affects the sustainability of the whole formulation, not simply on whether it is from a plant-derived or petrochemical source.

To illustrate: In terms of sustainability, the energy used in processing and transport must be assessed for each material. The fossil fuel consumed in providing some 'renewable' materials can be very substantial. Plantations to grow palm trees and coconuts, for example, to provide vegetable oil raw materials take a great deal of space. Clearing rainforest to create new plantations can be highly unsustainable and damage biodiversity. Of the land currently used for growing non-food crops it is not necessarily clear which crops, such as those providing biofuels or feedstocks for chemical factories, will offer the best returns in terms of improving sustainability and preserving petroleum resources.

Essentially all 'natural' ingredients that could be used in cleaning products involve some element of chemical processing. Many synthetic ingredients have been developed to be better performing, and thus potentially more sustainable, versions of natural substances.

Plants and trees naturally produce many compounds that are hazardous and have other characteristics which would be regarded as an undesirable trait for a cleaning product ingredient. For example, some garden plants contain natural toxins to guard against being eaten and are very poisonous to humans. Some natural substances produced by plants are highly poisonous to fish and could be environmentally very damaging if released in the wrong place. Many chemicals found in nature would not meet the standards of biodegradability now required of surfactants in cleaning products and some would be classified as having the potential to bioaccumulate.

How do Oleonix comply?

1) Choosing products that are designed for sustainability as well as safety.

a) Oleonix selects and formulates using ingredients not only to ensure safety but to optimise the sustainability of the finished product when properly and diligently used.

b) Oleonix select ingredients to ensure that cleaning products are safe for people and the environment when used as directed. Working with Brenntag the world's largest chemical ingredient supplier, they review important human and environmental safety aspects of these ingredients, and any concerns that have been raised about them. They then, based on the best available evidence, provide a range of cleaning products for use in the Industrial & Institutional (I&I) and Janitorial markets.

c) Oleonix selects ingredients based on natural resources – sugar beet pulp, coconut – where the sustainability is proven. In other areas it utilizes synthetic equivalents where their environmental impact is less than using natural based ingredients.

d) During product design Oleonix formulates so that, although there are adequate margins of safety for both humans and the environment, we optimise the use of each ingredient to produce the most sustainable formulation for the cleaning task.

e) Oleonix Full Spectrum Cleaner and its variants do not include any solvents, sulfonates, glycols, turpenes or any ingredient on the California Proposition 65 list, nor do they contain any VOC's.

f) All ingredients in Oleonix Full Spectrum are approved for use in EU ecolabel formulations. No ingredient has any hazard statement relating to the environment. The product is certified non-toxic and food safe by Campden BRI.

2) Working internally and with suppliers to responsibly manage manufacturing impacts.

Having effective control of impacts during the manufacturing phase include:

- Minimising raw material and finished product wastage during manufacture.
- Minimising consumption of energy and water.
- Minimising emissions to sewer and atmosphere and, in particular, controlling emissions of hazardous substances to avoid risk to people or the environment.
- Minimising packaging waste and recycling used packaging.
- Operating an Environmental Management System.
- Operating procedures to prevent accidental emissions.
- Operating Occupational Health & Safety systems to protect staff.

Oleonix source almost 100% of their ingredients from Brenntag – the world's leading chemical distributor who operate to a strong environmental policy and were awarded the Carbon Footprint Award in 2011. Their distribution depot is 11 miles from Oleonix factory minimizing the emissions associated with delivering our ingredients.

Oleonix manufacturing operations are based upon zero raw material and finished product wastage during manufacture. Post production rinse water is recycled for use in pre-diluted products and factory cleaning. There are zero emissions to sewer or atmosphere for over 90% of our production and minimal for the remaining few percent.

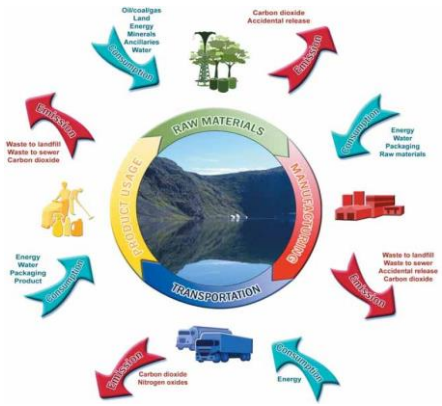
Wherever possible Oleonix re-use plastic and cardboard packaging, re-usable IBC containers and previously used wooden pallets. Oleonix return pallets and drums to suppliers wherever a returns program exists.

3) Minimising the environmental impacts that arise during the use of Oleonix solutions in cleaning operations.

Over 90% of Oleonix solutions are designed to be highly dilutable thereby reducing consumption of product, packaging and energy by enabling customers to buy effective products and to use them efficiently to minimise wastage and disposal to landfill.

Oleonix Full Spectrum Cleaner is a complete cleaner able to replace a large number of cleaners with just one cleaning product to complete most tasks by just changing the dilution rates.
First time cleaning is maximised to minimise waste and virtually eliminate rework rates.

Oleonix provide detailed manufacturer's instructions and recommend using accurate dosing systems where appropriate to ensure the highly concentrated products are diluted at the correct rate.
Certified food safe Oleonix chemicals require minimal rinsing thereby dramatically reducing water usage and so preserving one of the world's most precious resources.



The life cycle of a cleaning product

Oleonix provide sustainable eco-safe cleaning solutions that are proven to really work