

Environmental Issues facing everyone

Climate change is the greatest environmental challenge facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events. The effects will be felt internationally there may be severe problems for people in regions that are particularly vulnerable to change.

Climate change presents a significant challenge to the international community. There are also enormous opportunities if we are willing to take action.

Greenhouse effect

Some of the energy from the sun is trapped inside our atmosphere as it is reflected back from the earth towards space. This natural process is called the greenhouse effect due to the atmosphere acting like the glass walls of a greenhouse, it allows the sun's rays to enter but keeps the heat in.

The gases which make this happen 'greenhouse gases' are mainly water vapour and carbon dioxide. As humans emit more carbon dioxide and other greenhouse gases into the atmosphere the greenhouse effect becomes stronger. This causes the earth's climate to change unnaturally.

Climate change is one of the most serious environmental threats facing the world today. Its impacts will be felt across the world, as sea level rise threatens the existence of some small island states and puts millions of people at risk. Temperature increases, drought and flooding will affect people's health and way of life, and cause the irreversible loss of many species of plants and animals.

Key impacts

We need to try to reduce emissions of greenhouse gases, there will be experience of climate change which is likely to have effects on the world's environment, economy and society including:

Rising sea levels
Flooding in poor countries
Food shortage and disease
Severe water shortages
Loss of tropical forests

Recycling waste

Definitions: **"waste"** is "...any substance or object...which the holder discards or intends or is required to discard."

"Recycle" is "...to pass through a cycle again; repeat a process from the beginning, or to undergo reuse or renewal."

Contributing to climate change is waste, each year we generate about 100 million tonnes of waste from households, commerce and industry combined. Unfortunately most of this ends in land fill where methane is generated, a powerful greenhouse gas.

Taking action on waste is essential, since we are consuming natural resources at an unsustainable rate and contributing unnecessarily to climate change.

Recycling of plastics, glass, tin, aluminum, paper, card and other materials can be easy **it just takes a little extra thought and time.**



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Work smart... Work clean

Work Green

World-wide specialist manufacturers in computer, office equipment and multimedia cleaning products, **AF International** introduce its guide to...

...a cleaner and greener working environment.

For over 40 years, AF International has been manufacturing cleaning products for office equipment and during this time we have seen significant changes in working codes of practice. AF has continually developed new products that match these changes, as well as working lifestyles together with the ever growing need to be environmentally friendly.

This brochure highlights a variety of issues as well as providing information on **AF International's** commitment to **GREEN** Issues.



www.af-feelgood.com

Working Code of Practice

The AF Range

The AF formulations are developed for specific cleaning needs but always with ultimate disposal in mind. With a large research and development department AF aims to provide high quality products that have excellent cleaning performance to help increase the life span of equipment and keep the workplace free from dirt and bacteria.

With health, safety and hygiene issues high on the agenda of multi-user environments, special bactericidal formulations are used in AF products to clean effectively and hygienically thus reducing the risk of infection through viruses, and consequent lost productivity through illness. With operation safety paramount, non-flammable materials are used throughout the range where possible and in line with AF's environmental policy, wherever possible packaging material is recyclable and environmentally friendly.

Packaging

When developing new and improving existing products it is very important to look at the packaging. Not only does it have to be practical and perform well in use, it also has to meet a list of qualifications, including those which give us information on how the material is made, under what circumstances and how recyclable it is after use.

- To make the AF paper wipes, recycled pulp board is shipped from Canada to AF's factory in China and processed in a chemical free way to make the wipes which you see today.
- Plastic pump bottles are used where possible, these are free from propellants and made from recycled plastic, they can also be refilled.
- The tubs for wipes are made from recycled plastic, these can then be recycled again – also refill wipes are available for the tubs to save on packaging waste.
- AF uses tin plate steel for it's aerosols where possible as they require less energy to manufacture, also scrap steel is essential in new steel production and saves up to 75% in energy compared with virgin material.

AF International is also a member of the Green Dot Licensing Company, Valpak Ltd. These have a contractual agreement with PRO-Europe to manage the Green Dot® trademark, they are the largest registered compliance scheme under the packaging waste regulations in the UK and PRO-Europe is the umbrella organisation responsible for all Green Dot® systems in Europe.

You will find the recycle logo throughout the AF branded range.



Transportation of goods

AF International has manufacturing sites in the UK, China and Brazil. Each predominately supplies products into their surrounding markets. If product is imported from China they are always by sea. Although shipping takes around 12 weeks from China to the UK, it is the most efficient and ecologically sound method of transport. The shipping firm used is also committed to an environmental policy even down to using environmentally friendly silicone free paint for coating the vessels. Shipping uses 13.9g of CO2 per tonne where as heavy duty vehicle transport uses 92.0g CO2 per tonne every kilometre (figures quoted by the European Environment Agency).

Aerosols

Inside an aerosol there is always a propellant gas, it is this gas that is potentially dangerous to the environment. There are different variations of this gas used within the industry. Work is taking place to find alternatives.

AF's best selling products are 'airdusters' for blowing dust and debris from hard to reach places. As environmental concerns have developed over the years, there has been a move away from CFC and HCFC gases to HFC gases. This was as a result of the Montreal Protocol. The gas combinations that AF uses are HFC134a with either HFC152a or DME both of which produce a non-flammable airduster. The Kyoto Protocol raised concerns about the Global Warming Potential of many gases which included HFC134a and HFC152a both of which are greenhouse gases.

The major use of HFC134a is in car air-conditioning systems and the European Parliament backed a total ban on HFC134a in all new car systems from 2014 with a phase out beginning in 2009. The gas is also heavily used in fixed refrigeration systems and air conditioning systems where a policy of containment has been adopted.

Technical aerosols are also clearly identified users of HFC134a where it is inappropriate, usually for safety reasons to move to an alternative propellant. 70% of the usage in this category is for airdusters and freezing sprays. Additionally HFC propellants are also used in certain leisure applications and novelty products mainly due to non-flammability requirements set by EU regulations. There are currently no plans to ban the use of HFC134a in these areas but new applications should not be developed unless needed for safety reasons.

Austria and Denmark have acted independently of the EU and have imposed a ban on HFC and PFC gases but not where used in technical aerosols. The EU commission has asked them both to justify the "far reaching ban" and say that the bans "may constitute unjustified barriers to trade and so be contrary to EC treaty rules on the free movement of goods".

The Market Forces

Manufacturers of HFC134a, over the past 2 years, have been switching their production facilities to a new non-flammable gas, HFC125, and this has caused a severe shortage in the world market. Subsequently this has led to the price of HFC134a rising steeply over the past 12 months together with restricted availability. The new gas is not suitable for aerosol use due to its high pressure and it is also a greenhouse gas with a higher GWP (Global Warming Potential) than HFC134a.

AF is continually evaluating alternatives to HFC gases but does not believe user safety should be compromised.

CSR – Corporate Social Responsibility

AF International and Barnardo's are already linked as an integral part of AF's corporate social responsibility programme.

Barnardo's work with over 115,000 children, young people and their families in more than 394 projects across the country. This includes work with children affected by today's most urgent issues: poverty, homelessness, disability, bereavement and abuse.

Barnardo's vision is that the lives of children and young people should be free from poverty, abuse and discrimination. Its purpose is to help the most vulnerable children and young people transform their lives and fulfil their potential.

For more information about Barnardo's visit our website at www.barnardos.org.uk
Registered Charity Numbers: 216250 and SC037605



AF head quarters are in Derbyshire, England just inside The National Forest. AF is supporting the Forest in helping to reduce atmospheric carbon.

Carbon is taken out of the atmosphere by trees as they photosynthesise. Planting trees and shrubs helps to offset the effects of pollution and more carbon is locked into a tree structure as it grows.

AF International is making a significant contribution to reducing carbon emissions. Supporting The National Forest represents a physical demonstration and fulfils a number of objectives including environmental benefits, landscape and the enhancement of resources and boosting the rural economy.

For more information go to www.nationalforest.org.

Supporting



How to Recycle AF Products

Material	Disposal
Paper	AF Wipes
Plastic	AF tubs, pump spray bottles, flat pack envelopes, caps
Aerosols Aluminum / Tin Plate	Spray dusters / foam cleaners

Recycle them along the normal paper recycling routes – AF cleaners are water based cleaners so when the wipes are cleaned in the recycling process any residues will be water soluble.

Remove the top, containers must be thoroughly rinsed before recycling. These containers should be recyclable where facilities exist, most local councils collect HDPE and there are many HDPE recycling banks across the UK. Customers must check with their local council/local recycling bank if HDPE is acceptable in their local plastics collection.

Both aluminium and tin plate steel can be recycled. 75% of local authorities will accept aerosols in their local steel recycling banks. Remember: **DO NOT PIERCE THEM OR SQUASH THEM** and only put **EMPTY AEROSOLS** in the collection schemes. It helps if you can remove any plastic parts that come off easily such as lids