Volatile Organic Compounds (VOCs)

VOCs are materials which evaporate readily from commonly occurring sources such as vehicle exhausts, cleaning agents, furniture polish and fabric softeners. These also include solvents used in coatings, as well as thinners and brush cleaners.

In the presence of sunlight, these VOCs can react with nitrogen oxides to create ground level ozone and photochemical smogs. These in turn can contribute to pollution of the atmosphere. By the year 1999, the UK government is committed to reducing all VOC emissions by 30% from 1988 levels.

Although the impact of household coatings on atmospheric pollution is very small (less than 2% of the total amount of VOCs emitted), manufacturers believe the amount of VOCs in decorative coatings should be reduced and consumers given the choice of lower VOC-containing products.

Surplus coatings

The second biggest environment impact from decorative coatings is the leftover or unused material – commonly accumulated in sheds and garages. When disposed of as waste, it can create problems for landfill sites if not mixed in with other rubbish and due to its messy nature, it can contaminate recycling schemes.
What are the issues?

Coatings perform a positive environmental function in protecting and decorating surfaces. They provide us with more pleasing, hygienic and durable surroundings. However, decorative coatings have an impact on the environment at each stage in their lifecycle – during production, during application and during disposal.

The two biggest environmental effects associated with coatings are:

- **Emission of volatile organic compounds (VOCs) during application.**
- **Disposal of surplus materials.**

What is the industry doing?

As part of the industry’s decorative coatings environmental policy, coatings suppliers are committed to doing the following:

- Limiting the amount of VOC allowed in all coating products and reducing these limits over the coming years.
- Introducing new and alternative products with lower VOC levels.
- Introducing a labelling system* to inform you of the VOC content of each decorative coating product.
- A 5-band classification shows the VOC content: Minimal; Low; Medium; High and Very high.
- Giving advice on how to minimise the amount of waste coating generated, and how to re-use or dispose of it safely.
- Working with local authorities to encourage facilities for waste coatings collection.

What can you do?

**Choose your coatings carefully**

Choose lower VOC-containing coatings wherever possible.

- Look out for water based coatings and low solvent coatings.
- Decorative coatings for walls and ceilings are generally water based, with low and increasingly lower VOC levels.

Conventional coatings for woodwork and metal are generally solvent based, with higher VOC levels. Alternative, lower VOC products are available, but may display different properties. For instance, when painting interior wood, a water based acrylic gloss paint will dry more quickly, emit less fumes and odour and not yellow as much as solvent based gloss paint. However, the solvent based product will be glossier and have higher resistance to wear and tear.

- Look out for the environmental labelling scheme to inform you about the VOC content.

Surplus and leftover coatings

- Do not buy more coatings than you need for the job.
  Work out the area to be covered and the number of coats required. Refer to information on the back of the container to tell you how much of the product you need.
- Clean up responsibly to reduce coating waste.
  Wipe excess coating back into the container. Remove excess material from brush/roller by wiping off onto newspaper or rag and spreading out to dry before disposal.
- Store any leftover product carefully so that it can be re-used.
  Keep lid firmly on and invert the can to make a seal. Protect water based coatings from freezing and all coatings from temperatures above 30°C.
- Donate any leftover material.
  Offer to friends, family or local charity groups.
- Dispose of unused coating responsibly.
  Do not pour into drains or watercourses. Use an inert, absorbent material such as cat litter to soak up small amounts of water based decorative coatings – then dispose of in dustbin.
  For larger amounts of waste and solvent based products ask your local authority for guidance. Some local authorities have separate facilities for coatings and recycling of empty or dried out cans as many do not want coating waste in the dustbin.