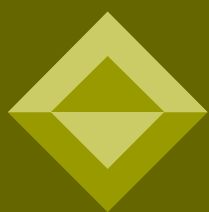


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green update

April 2008

CHEMICAL PRODUCTS and GREEN CLEANING

Kermit the Frog has a famous saying “It’s not easy being green” Obviously it is not of great benefit to the cleaner having a green product unless it is effective for the intended use and is available at a sensible price. Fortunately it is possible to have all three desired characteristics but it is not easy.

An important point is the availability of credible external assessments to verify the claims made for chemical products. A recent proliferation of doubtful green claims, mainly in the retail sector, has attracted the attention of the ACCC, and they have issued a public warning about possible infringements of the Trade Practices Act. A useful development is the association between Woosafe, CRA (Carpet and Rug Institute) and Green Seal (USA) to provide for a certification mark which deals with green issues as well as efficacy and quality specifications. It is hoped that these arrangements can extend to green certifiers in other countries. Obviously substantial differences of opinion may arise on some issues, but you have to make a start to make any future progress.

There are some important characteristics that need to be assessed for a green product. This is not an exhaustive list but deals with some major issues as examples.

1. Surfactants and Biodegradability

Surfactants are the essential base of cleaning formulations so we seek products which are non-toxic and which biodegrade rapidly to simple substances which do not create environmental problems. Most surfactants go through a number of stages as they degrade and have been studied at each stage of the process to see whether they affect aquatic life. The speed of the process is very important. Governments have become interested in the problem and have standards in most countries. In Europe a previously very popular class known as N.P. ethoxylates has now been banned. Their advantage was low cost and high efficacy. Their disadvantage was very slow biodegradability and the creation of quite undesirable intermediate products along the way. Even in countries like Australia where they are not banned many companies have already replaced them. There is now a very extensive range of biodegradable surfactants available in Australia, for the preparation of environmentally responsible formulations.



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1. Phosphates

Phosphates are a natural part of our environment and are an essential major nutrient for plant growth. However an excess of phosphates in our creeks and rivers and even in the ocean can promote undesirable growth such as blue green algae and this creates toxins which affect other life forms. The process is known as eutrophication. Phosphates in detergents contribute to creating this problem so it is environmentally responsible to reduce the level of phosphates in the formulation or delete them entirely

2. Carcinogens

Carcinogens are substances which cause cancer and one of the strongest accurate criticisms of the chemical industry is that substances now known to cause cancer have contaminated our environment in the past. There is really no excuse for this to-day and responsible companies do not handle known carcinogens. We do not handle suspected carcinogens either.

3. VOC's (Volatile Organic compounds)

This covers a huge range of chemicals and the environmental issues have created a good deal of debate. Perfumes, for example, have to be volatile to be detected and many environmentalists feel that they are a non-essential ingredient of cleaning formulations and should therefore be deleted. They also point out that some people are allergic to some perfumes. On the other hand, many essential oils which are used alone or in combinations such as eucalyptus, lavender, tea tree etc., have been demonstrated to be beneficial to human health (aromatherapy) and to be rapidly and completely biodegradable. Many cleaners believe that perfumes provide an essential part of their service.

We have addressed this issue in our non-perfumed hot water soil extraction pre-spray SK50. SK50 is Woolsafe approved and contains no VOC'S and is rapidly biodegradable. It is also compatible with the full range of Sonitron® perfumed deodorants, so you can utilise perfume or not as you choose.

Solvents comprise the largest range of ingredients classified as VOC's. As an example we can consider the replacement of a solvent with environmental problems with a greener solvent.

The chlorinated solvent, 1,1,1 TRICHLORETHANE has given spectacular results in cleaning. It is also an anaesthetic like chloroform which has caused the deaths of some people. It has been proven to damage the ozone layer.

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In some applications it has been replaced by the orange solvent d'Limonene. When correctly formulated and used, this material is safe. While on analysis it is classified as volatile, it is very slow to evaporate, and it will biodegrade quite rapidly and completely. It is also a renewable resource, unlike products derived from the finite resource petroleum, where there is increasing concern about 'peak oil.' We utilise d'Limonene for our Joppa formulation which is highly regarded for ultrasonic cleaning. We also use it in Citrus Special Sonisteam and in Maxi-T-3 Citrus Special.

Substitutions of this type are obviously a giant step forward for greener formulations.

Despite developments such as recirculation and re-use of water, close analysis shows that by far the greenest effective method of carpet cleaning available at present is encapsulation. We therefore see it as essential that the chemical products available for this method should complement and enhance its green credentials. Consequently we offer our Zenith Encapsulating shampoo, an environmentally responsible formulation which contains no phosphates, carcinogens, or mutagens, is very rapidly biodegradable, meets VOC requirements and has been demonstrated to be effective and safe by the comprehensive Woolsafe test procedure. Green Cleaning is here now in Australia for carpets and upholstery.

The positive aspect of green developments generally is that a very large number of organisations associated with the chemical industry are working to reduce our environmental footprint and create a sustainable future for the industry. Significant progress had already been made and the rate of beneficial change is accelerating.

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