

## Environmental Policy

### **RAW MATERIALS**

The following environmental factors are taken into careful consideration when selecting raw materials:

#### **Biodegradability**

Surfactants and detergents (tensides) used in the cleaning products manufactured by Clover Chemicals comply with the very strict European legislation on biodegradability. This legislation covers the primary biodegradability and final biodegradation of products.

Products can biodegrade into harmless materials, but also potentially into harmful materials. Sometimes the biodegradation products are more harmful than the existing products. Thus, not only biodegradability but also the harm that can be caused by biodegradation products must be considered. Clover Chemicals Ltd researches these factors when formulating new products to ensure that the products are of minimum impact to the environment.

Regulation EC No. 648/2004 of the European Parliament defines, amongst other things, primary biodegradation and also ultimate aerobic biodegradation, and has created legislation so that only products conforming to these standards can be marketed in the EU. Clover Chemicals Ltd fully complies with these regulations and thus the environmental impact of formulations is controlled and reduced.

#### **NPEs**

Nonylphenoethoxylates (NPEs) are banned from use in the EU (but not other areas) and **Clover Chemicals do not purchase or use NPEs**. NPE, although biodegradable, has suspect breakdown products and is thus banned. Previously many companies in Europe used these raw materials as they were very cheap and easy to formulate into products. Thus when many companies were forced to stop using these products, they launched so called 'environmentally friendly' ranges (i.e. not containing NPE) in order to increase the price they could obtain in the market place.

#### **V.O.C. (Volatile Organic Compounds)**

Clover Chemicals Ltd research and implement alternatives to the use of Volatile Organic Compounds in their products. Volatile Organic Compounds are harmful to the environment as they do not have a simple biodegradation route and can build up in the air.

#### **Formaldehyde and Chlorinated Solvents**

Clover Chemicals Ltd do not use these harmful products or any raw materials containing them.

### **PACKAGING WASTE**

Clover Chemicals is committed to reducing packaging waste, and is a member of Valpak and Raepak to ensure compliance with waste recovery schemes in the UK and Ireland. Clover products sold into Europe carry the 'green dot' on the label: this shows that Clover contributes to a scheme whereby packaging is recovered and recycled on our behalf.

### **ENERGY FOOTPRINT**

Clover Chemicals also strive to reduce the overall energy consumption that is involved in a product's life cycle, ie. the energy consumed in its manufacture, packaging, transportation and eventual use. This 'energy footprint' can be reduced, for example, by developing concentrated products that produce optimum results when used economically. This means that less packaging must be produced and disposed of, and energy is saved on transportation.

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