



TECHNICAL BULLETIN – COMPETITIVE EXCLUSION

The bacteria in the Chemex range of biological products works on a process called competitive exclusion.

Organic soiling breaks down using bacteria from its own sources and using resources from the environment. These bacteria are often gram negative in nature. One of the characteristics of this type of bacteria is that it cannot survive without a food source. This process applies to all areas and surfaces where bad bacteria may exist such as washroom floors, urinals, tiles, showers, changing rooms, kitchens, vehicle interiors, etc.

The result of the breakdown process will be a waste material of some sort. This waste material could be in the form solid compounds which are unpleasant in the environment or alternatively as odours. This is how malodours are formed. Depending on what the 'bad' bacteria are breaking down the odours can be varied. Examples of this are amines, mercaptans and others.

Odours in urinals, as an example, can however be caused by the breakdown of the organic matter and by the degradation of the urine giving ammonia type odours.

The use of Chemex products adds a range of 'friendly' resilient bacteria into the system. These friendly bacteria immediately start digesting the food source that is contained within the situation. This is done by producing a range of enzymes such as lipase to degrade grease, uricase to degrade urine compounds, etc. The friendly bacteria colonise on the food source, pipework, floor, etc and continue the digestion process for as long as the food source exists. The waste product from these friendly bacteria is carbon dioxide and water. When the food source has been depleted the friendly bacteria have the ability to become dormant and then re-germinate when further food becomes available.

In this process the good bacteria take away the food source for the bad bacteria to survive and on this basis the bad bacteria are killed off.

Whilst this cannot be said to be a sanitisation process, you will start to eliminate the bad bacteria by this process (which is known as competitive exclusion). If a swab test was carried out, the total number of bacteria would rise but the number of harmful bacteria would decline.

Chemex International, 7 Newfield Avenue, Farnborough, Hampshire GU14 9PG

Tel/Fax: 01252 675588 Mob: 07780 677452

E-Mail: Malcolm.dixon@chemexfranchises.co.uk Website: www.chemexfranchises.co.uk/guildford