



## **Motor Caravan & Caravan Toilet Chemicals**

### **Overview**

Today very few people use a traditional bucket type toilet (Elsan Bristol or similar), most use a portable flushing toilet (Porta Potti or similar) or a built-in cassette toilet. Generally these hold around 20L and need some form of chemical to break down solids. Originally most products were formaldehyde based, then in the 1990's more environmentally friendly biocides were introduced, a lot of which are still used. More recently, products have been developed which contained enzymes and Probiotics.

### **Formaldehyde Products**

Formaldehyde is a very good cheap biocide as it kills pretty much everything - the reason it was used for embalming. Unfortunately, formaldehyde smells and leading scientists believe it may be carcinogenic. It will also harm septic tanks and similar systems.

Formaldehyde is the main biocide in Elsan Blue and Elsan Double Blue, a number of products from Blue Diamond and a lot of the cheap toilet fluids sold in discounters and online.

### **Non formaldehyde fluids**

Because of the hazards of using formaldehyde and the issues around septic tanks, manufacturers introduced more environmentally friendly biocides. Thetford and 40shot are the most popular of these. The biocide is generally spent after treating the waste in a 20L tank and as such makes it safe for septic tanks. Thetford and 40shot use only this type of biocide so their standard product is septic tank safe; other brands dress this up as Organic, ECO, Green and often dye the product green to make you feel it is something special - it is normally just Formaldehyde free. There are also soluble tabs on the market which are usually a powdered form of the non formaldehyde biocide. However, they are designed to dissolve more effectively in heat, not a cold water cassette, and if they get damp they will start to dissolve in the tub. Some companies are now introducing liquid sachets, which are 1 shot tear top sachets with normal cassette toilet fluid in them.

### **Enzymes, Probiotic, ECO Fluids**

In the last few years we have seen the addition of enzyme based products, which are great for large tanks and long periods (it is usually added to septic tanks). Probiotics and microbes work in a similar way, but take around 12-14 hours to start to work. This usually means you are probably emptying your 20L tank before anything has happened. 40shot launched a revolutionary biocide, enzyme and probiotic free fluid which works in a totally different way to ensure you only smell a pleasant floral fragrance and not nasty smells and is totally safe for septic tanks and the environment.

### **No Chemicals or cheap washing tabs.**

You can invest in a SOG unit or other similar products which extract the smells from your cassette tank to send them outside to your fellow campers. This works well for the owner but is most unpleasant for your neighbour! Washing tablets are cheap but they are not designed for treating human waste and many contain bleach. Again, unless they are septic tank safe (which they are usually not) they could harm the eco system of the tank, and could also damage the toilet cassette tank and or seals.

### **General advice**

Buy a specifically designed product for the job (you wouldn't put sunflower oil in your engine because its cheaper), avoid formaldehyde based products and be cautious of enzymatic and probiotic products.

Try to measure your dose or buy a product which is a one shot or comes in a measuring bottle to avoid under or overdosing you tank. If you want value for money shop around and look at how many doses you get from the bottle for the price you pay (e.g. a 40shot Cassette Toilet Fluid will cost £10.00 in most retailers, using it for waste only you will get 50 doses per bottle that equates to 20p per dose).

Again if you have a separate flush tank, not mains fed, ensure you use a formaldehyde free pink flush or use a flush and waste all-in-one toilet fluid.

Most products are dyed; a lot of manufacturers use powder dye which stains. Today a number of companies use polymeric liquid which are generally easy to rinse.

### **Advice to site owners**

We would suggest the best option for anyone considering installing a toilet waste facility, would be to provide direct access to a mains sewer. However, if this is not an option, then access to a holding tank/septic tank would be acceptable, and both toilet and grey waste water would go in to the same tank.

This would increase the dilution of any biocide used, though we would also suggest that ideally motorcaravan owners use a non biocidal fluid or ideally one that isn't enzymatic or probiotic.

This is because being biocide free won't kill any enzymes in the septic tank and enzyme or probiotic free won't effect the balance of the tank.

### **Products claimed to be suitable for septic tanks:-**

- Qualkem 40shot ECO Cassette Toilet Fluid
- Blue Bio
- Dometic GreenCare tabs
- Aqua Chem Green
- Towsure Toilet Green
- Kampa Green

Others are available

