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## Antiseptic Chemicals In Personal Care & Cleaning Products

As you are aware, your wastewater treatment system relies on beneficial bacteria to treat the water. Use of antiseptic, disinfectant or antibiotic products can kill off or effect these helpful bacteria, seriously reducing your treatment system's effectiveness. The results can be for example; smelly and cloudy water, or high sludge levels.

Recent research we have undertaken has identified a number of newer chemicals common to a range of cleaners and personal care products. A number of these products are labeled as "eco-friendly". These chemicals are however antiseptic/disinfectants and may seriously effect the operation of you wastewater treatment system. We recommend that you check the fine print on the labels carefully and stop or severely limit use of these types of products, particularly if your system is having or has had, significant treatment process problems or Council test failures.

### The New Suspects Are:

**Methylchloroisothiazolinone** and **Methylisothiazolinone** are preservatives used in a wide range of liquid personal care, cosmetic and laundry products. They kill bacteria, yeast and fungi. They are also used in glue production, detergents, paints and fuels. When the two chemicals are used together they are commonly listed under the registered tradename Kathon CG. They can be found in a range of Earth Choice products, Fruits and other shampoos, body and hand washes of a number different brands, also some dishwashing detergents. Remember, check the fine print on the label.

See the following websites for further information.

<http://www.fact-index.com/m/me/methylchloroisothiazolinone.html>

<http://householdproducts.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=91>

**Cocamidopropyl Betaine** is a detergent, with antibiotic effects. It is used in personal sanitary products for example bodywash products and as a conditioning agent in shampoos.

### The Old Suspects (we knew about)

**Chloroxylonol** is the main constituent of Dettol, it is an antiseptic and disinfectant. Found mainly in products listing Dettol as an ingredient, but may also be in other liquid personal products.

**Oxygen or Active Oxygen compounds**, added to a range of cleaning, dishwasher, shower gel/liquid and laundry products. These are generally the same compounds (sodium perborate, sodium percarbonate) as found in Oxygen Bleach soakers, of various brands. Optical brighteners or fluoescers, are commonly also added to washing powders to make your 'whites whiter' and your 'coloureds brighter'.

**Quaternary Ammonium Compounds**, sometimes listed as BKC, commonly found in household disinfectants and toilet cleaners. Quaternary Ammonium Compounds are also found in fabric softeners.

## Do I Have To Stop Using All Of These Products?

Well, the results of using them are accumulative. Continued and frequent use of even small amounts of products containing these chemicals will likely result in reduced performance or even significant problems with the operation of your wastewater treatment system.

Occasional use (eg once a week) of one of these products, containing one of these chemicals, may not have much of an effect on your treatment system. Use of two or more, once or more a week increases the risk of treatment system problems. However, daily use of one or more products containing one or more of these chemicals, will likely effect your treatment system.

For systems suffering major treatment process problems, elimination of these chemicals and a 'restart' of the system involving a complete pumpout and start of an EM® beneficial bacterial additive program may be recommended (contact us for details). There is no point starting any bacterial additive treatment program until the cause of the problem(s) in your treatment system is identified and if possible, eliminated.

Bacterial additive products will not correct, remedy or cover up the use of strong (eg Chlorine bleach, Domestos) or milder products containing disinfectant/antiseptic/antibacterial chemicals. If you have any other questions please contact us.

----- A tear off checklist to take shopping with you-----

Product Checklist (read the fine print on the label to see if any of the Suspects are listed)	
Suspects	Examples of types of product
Chloroxylenol	Mainly in products listing Dettol as an ingredient, but may also be in other liquid personal bodycare products.
Cocamidopropyl Betaine	Personal sanitary products for example bodywash products and shampoos.
Methylchloroisothiazolinone Methylisothiazolinone	Liquid personal care, cosmetic, cleaning and laundry products, for example Earth Choice, Fruits shampoo and many others.
Oxygen or Active Oxygen	Laundry powders and soakers, some dishwasher powders
Quaternary Ammonium Compounds	Many toilet and floor cleaners, 'toilet blue' and other hang in the bowl type products.