



Chemische und mikrobiologische
Untersuchungen

- Trinkwasser, Badewasser
 - Brunnen, Oberflächenwasser
 - Abwasser, Klärschlamm und Abfall
 - Boden, Deponien und Altablaster
 - Außenluft, Innenraumluft
 - Arbeitsplatzmessungen (MAK / TRK)
- Steinstraße 10
35457 Lollar

Test report: **G06-1237A.doc** vom 10.12.2006 Page 1/5

Client:

Test Unit: REDOzone™ Sterilisator RZ380MG

Testing of the effect of "REDOzone™ sterilizer RZ380MG" on effect towards plant pesticide in drinking water

Introduction:

For inspection of the effectiveness of the "REDOzone™ sterilizer RZ380MG" drinking water with different plant pesticide was remunerated and was treated subsequently with the "REDOzone™ sterilizer RZ380MG" 15 and 30 minutes.

Subsequently the pesticide was extracted and the concentration gaschromatographisch determines. As a reference, remunerated, untreated drinking water served. During the trial execution, the ozone-concentration was determined parallel.

Result of Ozone-Measurement

Measurement for x Minute Ozone-Treatment	Unit	Ozone-Concentration
0.1	mg/l	0.24
15	mg/l	0.25
30	mg/l	0.38

Investigation procedure DIN 38408 G3

Result of the determination of the plant pesticide

PSM	Unit	TW dosage without treatment	TW dosage + 15 min REDOzone	TW dosage + 30 min REDOzone
- alpha HCH	µg/l	0,20	0,05	< 0,05
- HCB	µg/l	0,20	0,11	< 0,10
- beta HCH	µg/l	0,20	0,05	< 0,15
- gamma HCH (Lindan)	µg/l	0,20	0,09	0,01
- delta HCH	µg/l	0,20	0,11	0,03
- Heptachlor	µg/l	0,20	0,02	< 0,03
- Aldrin	µg/l	0,20	< 0,05	< 0,05
- Dieldrin	µg/l	0,20	0,10	0,03
- Endrin	µg/l	0,20	0,11	0,08
- p,p-DDT	µg/l	0,20	0,05	< 0,10
- Atrazin	µg/l	0,28	0,08	< 0,15

TW = Drinking Water

PSM = Pesticide

Variation of the pesticide concentration in percent related on untreated drinking water

PSM	Unit	TW dosage without treatment	TW dosage + 15 min REDOzone	TW dosage + 30 min REDOzone
- alpha HCH	%	100	- 75	< 75
- HCB	%	100	- 45	< 50
- beta HCH	%	100	- 75	< 25
- gamma HCH (Lindan)	%	100	- 55	- 95
- delta HCH	%	100	- 45	- 85
- Heptachlor	%	100	- 90	< 85
- Aldrin	%	100	< 75	< 75
- Dieldrin	%	100	- 50	- 85
- Endrin	%	100	- 45	- 70
- p,p-DDT	%	100	- 75	< 50
- Atrazin	%	100	- 60	< 25

TW = Drinking Water

PSM = Pesticide

Conclusion

After the 30 minutes of **REDOzone™**, a clear removal (>50%) could be assessed in the pesticides.

The result of investigation and test of the "REDOzone™ sterilizer RZ380MG" unit against 11 types of pesticides in water after 30 minutes treatment, in most cases the reduction of the concentration take place up to 90%.



Dr. J. Prucha



Dr. K. Schöpke