

Soil and ground water criteria used in The Netherlands for contaminated land ("Dutch List")

Component	Soil (mg/kg dry soil)			Ground water (ug/L)				
	A	B	C	A	B	C		
<u>1. Metals</u>								
Cr	100	250	800	20	50	200		
Co	20	50	300	20	50	200		
Ni	50	100	500	20	50	200		
Cu	50	100	500	20	50	200		
Zn	200	500	3000	50	200	800		
As	20	30	50	10	30	100		
Mo	10	40	200	5	20	100		
Cd	1	5	20	1	2.5	10		
Sn	20	50	300	10	30	150		
Ba	200	400	2000	50	100	500		
Hg	0.5	2	10	0.2	0.5	2		
Pb	50	150	600	20	50	200		
<u>2. Inorganics</u>								
NH ₄ (as N)	–	–	–	200	1000	3000		
F (total)	200	400	2000	300	1200	4000		
CN		(tot. free)	1	10	100	5	30	100
		(tot. comb.)	5	50	500	10	50	200
S (total)	2	20	200	10	100	300		
Br (total)	20	50	300	100	500	2000		
PO ₄ (as P)	–	–	–	50	200	700		
<u>3. Aromatics Compounds</u>								
Benzene	0.01	0.5	5	0.2	1	5		
Ethylbenzene	0.05	5	50	0.5	20	60		
Toluene	0.05	3	30	0.5	15	50		
Xylenes	0.05	5	50	0.5	20	60		
Phenols	0.02	1	10	0.5	15	50		
Total	0.1	7	70	1	30	100		
<u>4. Polycyclic Hydrocarbons</u>								
Naphthalene	0.1	5	50	0.2	7	30		
Anthracene	0.1	10	100	0.1	2	10		
Fenanthrene	0.1	10	100	0.1	2	10		
Flouranthene	0.1	10	100	0.02	1	5		
Pyrene	0.1	10	100	0.02	1	5		
1,2 - benzopyrene	0.05	1	10	0.01	0.2	1		
Total	1	20	200	0.2	10	40		
<u>5. Chlorinated Hydrocarbons</u>								
Aliphatics								
	(Individual)	0.1	5	50	1	10	50	
	(Total)	0.1	7	70	1	15	70	
Chlorobenzenes								
	(Individual)	0.05	1	10	0.02	0.5	2	
	(Total)	0.05	2	20	0.02	1	5	

<u>Component</u>	<u>Soil (mg/kg dry soil)</u>			<u>Ground water (ug/L)</u>			
	A	B	C	A	B	C	
1. Metals							
Chlorophenols							
	(Individual)	0.01	0.5	5	0.01	0.03	1.5
	(Total)	0.01	1	10	0.01	0.5	2
Chlor. PAHs (Tot.)		0.05	1	10	0.01	0.2	1
PCB's (Tot.)		0.05	1	10	0.01	0.2	1
EOCL (Tot.)		0.1	8	80	1	15	70
6. Pesticides							
Chlorinated organics							
	(Individual)	0.1	0.5	5	0.5	0.2	1
	(Total)	0.1	1	10	0.1	0.5	2
Pesticides	(Total)	0.1	2	20	0.1	1	5
7. Other Polutants							
Tetrahydrofuran		0.1	4	40	0.5	20	60
Pyridine		0.1	2	20	0.5	10	30
Tetrahydrothiophene		0.1	5	50	0.5	20	60
Cyclohexanes		0.1	6	60	0.5	15	50
Styrene		0.1	5	50	0.5	20	60
Gasoline		20	100	800	10	40	150
Mineral Oil		100	1000	5000	20	200	600

These values are not "standards" but rather guidelines for use in assessing the significance of contaminated land. A simplified explanation of the ABC levels : A - level implies unpolluted, B - level implies pollution present and further investigation required, C - level implies significant pollution present and cleanup (preferably back to the A - level) required.