

THIS IS A COURTESY COPY OF REMEDIATION STANDARDS COMPARISON TABLES ASSOCIATED WITH THE REMEDIATION STANDARDS, N.J.A.C. 7:26D. SHOULD THERE BE ANY DISCREPANCIES BETWEEN THE VALUES IN THESE TABLES AND THE OFFICIAL VERSION OF THE RULE, THE OFFICIAL VERSION OF THE RULE WILL GOVERN. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

Comparison of 2013 Soil and Soil Leachate Screening Levels with 2021 Soil and Soil Leachate Remediation Standards for the Migration to Ground Water Exposure Pathway

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
Acenaphthene	83-32-9	400	110	NA ¹	4,200	NA ¹
Acenaphthalene	208-96-8	NA	NA	NR	NA	NR
Acetone (2-Propanone)	67-64-1	6,000	19	19	120,000	120,000
Acetophenone	98-86-2	700	3	3.6	14,000	14,000
Acrolein	107-02-8	4	0.5	NR	80	NR
Acrylonitrile	107-13-1	0.06	0.5	NR	2.0	NR
Aldrin	309-00-2	0.04	0.2	0.13	0.04	0.8
Aluminum (total)	7429-90-5	NA	6,000	NA ²	4,000	NA ²
Anthracene	120-12-7	2,000	2,400	NA ¹	43	NA ¹
Antimony (total)	7440-36-0	6	6	5.4	120	120
Arsenic (total)	7440-38-2	3	19	19 ³	3	60
Atrazine	1912-24-9	3	0.2	0.33 ⁴	60	60
Barium (total)	7440-39-3	6,000	2,100	2,100	120,000	120,000
Benzaldehyde	100-52-7	NA	NA	NA ⁵	NA	NA ⁵
Benzene	71-43-2	1	0.005	0.0094	4	20
Benzidine	92-87-5	20	0.7	NR	20	NR
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	0.1	0.8	0.71	1	2
Benzo(a)pyrene	50-32-8	0.1	0.2	NA ¹	0.1	NA ¹
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	0.2	2	NA ¹	1	NA ¹
Benzo(ghi)perylene	191-24-2	NA	NA	NR	NA	NR
Benzo(k)fluoranthene	207-08-9	0.5	25	NA ¹	0.8	NA ¹

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
Beryllium	7440-41-7	1	0.7	0.70	20	20
1,1'-Biphenyl	92-52-4	400	140	NA ¹	6,000	NA ¹
Bis(2-chloroethoxy)methane	111-91-1	NA	NR	NA ⁵	NR	NA ⁵
Bis(2-chloroethyl)ether	111-44-4	7	0.2	0.33 ⁴	7	140
Bis(2-ethylhexyl)phthalate	117-81-7	3	1,200	14	40	60
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1	0.005	0.0050 ⁴	12	20
Bromoform	75-25-2	4	0.03	0.018	80	80
Bromomethane (Methyl bromide)	74-83-9	10	0.04	0.043	200	200
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	300	0.9	0.98	6,000	6,000
Butylbenzyl phthalate	85-68-7	100	230	29	2,000	2,000
Cadmium	7440-43-9	4	2	1.9	80	80
Caprolactam	105-60-2	5,000	12	16	70,000	80,000
Carbazole	86-74-8	NA	NA	NR	NA	NR
Carbon disulfide	75-15-0	700	6	3.7	14,000	14,000
Carbon tetrachloride	56-23-5	1	0.005	0.0075	8	20
Chlordane (alpha and gamma forms summed)	57-74-9	0.5	0.05	1.4	0.5	10
4-Chloroaniline	106-47-8	30	NR	0.23	NR	600
Chlorobenzene	108-90-7	50	0.6	0.64	1,000	1,000
Chloroethane (Ethyl chloride)	75-00-3	NA	NA	NA ⁵	NA	NA ⁵
Chloroform	67-66-3	70	0.4	0.33	1,400	1,400
Chloromethane (Methyl chloride)	74-87-3	NA	NA	NA ⁵	NA	NA ⁵
2-Chloronaphthalene	91-58-7	600	NR	NA ¹	NR	NA ¹
2-Chlorophenol (o-Chlorophenol)	95-57-8	40	0.8	0.76	800	800
Chrysene	218-01-9	5	80	NA ¹	2	NA ¹
Cobalt (total)	7440-48-4	100	90	90	2,000	2,000
Copper (total)	7440-50-8	1,300	11,000	910	26,000	26,000
Cyanide	57-12-5	100	20	20	2,000	2,000
Cyclohexane	110-82-7	NA	NR	NA ⁵	NR	NA ⁵
4,4'-DDD (p,p'-TDE)	72-54-8	0.1	4	0.47	2	2
4,4'-DDE (p,p'-DDX)	72-55-9	0.1	18	0.47	2	2
4,4'-DDT	50-29-3	0.1	11	0.67	2	2
Dibenz(a,h)anthracene	53-70-3	0.3	0.8	NA ¹	0.3	NA ¹

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
Dibromochloromethane (Chlorodibromomethane)	124-48-1	1	0.005	0.0050 ⁴	8	20
1,2-Dibromo-3-chloropropane	96-12-8	0.02	0.005	0.0050 ⁴	0.4	0.4
1,2-Dibromoethane (Ethylene dibromide)	106-93-4	0.03	0.005	0.0050 ⁴	0.03	0.6
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	600	17	11	12,000	12,000
1,3-Dichlorobenzene (m-Dichlorobenzene)	541-73-1	600	19	11	12,000	12,000
1,4-Dichlorobenzene (p-Dichlorobenzene)	106-46-7	75	2	1.4	1,500	1,500
3,3'-Dichlorobenzidine	91-94-1	30	0.2	3.9	30	600
Dichlorodifluoromethane (Freon 12)	75-71-8	1,000	39	38	20,000	20,000
1,1-Dichloroethane	75-34-3	50	0.2	0.24	1,000	1,000
1,2-Dichloroethane	107-06-2	2	0.005	0.0095	6	40
1,1-Dichloroethene (1,1-Dichloroethylene)	75-35-4	1	0.008	0.0069	20	20
1,2-Dichloroethene (cis) (c-1,2-Dichloroethylene)	156-59-2	70	0.3	0.35	1,400	1,400
1,2-Dichloroethene (trans) (t-1,2-Dichloroethylene)	156-60-5	100	0.6	0.56	2,000	2,000
2,4-Dichlorophenol	120-83-2	20	0.2	0.19	400	400
1,2-Dichloropropane	78-87-5	1	0.005	0.0058	10	20
1,3-Dichloropropene (total)	542-75-6	1	0.005	0.0063	8	20
Dieldrin	60-57-1	0.03	0.003	0.024	0.04	0.6
Diethylphthalate	84-66-2	6,000	88	44	120,000	120,000
2,4-Dimethylphenol	105-67-9	100	1	2.3	2,000	2,000
Di-n-butyl phthalate	84-74-2	700	760	NA ¹	11,000	NA ¹
4,6-Dinitro-2-methylphenol	534-52-1	1	0.3	NR	14	NR
2,4-Dinitrophenol	51-28-5	40	0.3	0.33 ⁴	200	800
2,4-Dinitrotoluene	121-14-2	NA	NA	NR	NA	NR
2,6-Dinitrotoluene	606-20-2	NA	NA	NR	NA	NR
2,4-Dinitrotoluene/2,6-Dinitrotoluene (mixture)	25321-14-6	10	0.2	0.27	10	200
Di-n-octyl phthalate	117-84-0	100	3300	NA ¹	20	NA ¹
1,4-Dioxane	123-91-1	10	NR	0.067 ⁽⁴⁾	NR	8
1,2-Diphenylhydrazine	122-66-7	20	0.7	NR	20	NR

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
Endosulfan I and Endosulfan II (alpha and beta) (summed)	115-29-7	40	4	NA ¹	510	NA ¹
Endosulfan sulfate	1031-07-8	40	2	NR	800	NR
Endrin	72-20-8	2	1	1.6	40	40
Ethylbenzene	100-41-4	700	13	15	14,000	14,000
Extractable Petroleum Hydrocarbons (No. 2 Fuel Oil and Diesel)	various	NA	NR	NA ⁵	NR	NA ⁵
Extractable Petroleum Hydrocarbons (Other)	various	NA	NR	NA ⁵	NR	NA ⁵
Fluoranthene	206-44-0	300	1300	NA ¹	210	NA ¹
Fluorene	86-73-7	300	170	NA ¹	2,000	NA ¹
alpha-HCH (alpha-BHC)	319-84-6	0.02	0.002	0.0023	0.1	0.4
beta-HCH (beta-BHC)	319-85-7	0.04	0.002	0.0046	0.4	0.8
Heptachlor	76-44-8	0.05	0.5	0.083	0.2	1
Heptachlor epoxide	1024-57-3	0.2	0.01	0.081	0.2	4
Hexachlorobenzene	118-74-1	0.02	0.2	0.17 ⁴	0.4	0.4
Hexachloro-1,3-butadiene	87-68-3	1	0.9	0.17 ⁴	8	20
Hexachlorocyclopentadiene	77-47-4	40	320	2.5	800	800
Hexachloroethane	67-72-1	7	0.2	0.17 ⁴	40	140
n-Hexane	110-54-3	30	NR	5.5	NR	600
2-Hexanone	591-78-6	300	NR	0.15	NR	800
Indeno(1,2,3-cd)pyrene	193-39-5	0.2	7	NA ¹	0.2	NA ¹
Isophorone	78-59-1	40	0.2	0.23	800	800
Isopropylbenzene	98-82-8	700	NR	22	NR	14,000
Lead (total)	7439-92-1	5	90	90	100	100
Lindane (gamma-HCH)(gamma-BHC)	58-89-9	0.03	0.002	0.0035	0.6	0.6
Manganese (total)	7439-96-5	NA	65	NA ²	1,000	NA ²
Mercury (total)	7439-97-6	2	0.1	0.10 ⁴	40	40
Methoxychlor	72-43-5	40	160	NA ¹	45	NA ¹
Methyl acetate	79-20-9	7,000	22	22	140,000	140,000
Methylene chloride (Dichloromethane)	75-09-2	3	0.01	0.013	60	60
2-Methylnaphthalene	91-57-6	30	8	3.1	600	600
4-Methyl-2-pentanone (MIBK)	108-10-1	NA	NR	NA ⁵	NR	NA ⁵
2-Methylphenol (o-cresol)	95-48-7	50	NA	0.77	NA	1,000

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
4-Methylphenol (p-cresol)	106-44-5	50	NA	0.75	NA	1,000
Methyl tert-butyl ether (MTBE)	1634-04-4	70	0.2	0.25	1,400	1,400
Naphthalene	91-20-3	300	25	19	6,000	6,000
Nickel (total)	7440-02-0	100	48	48	2,000	2,000
2-Nitroaniline	88-74-4	NA	NA	NR	NA	NR
4-Nitroaniline	100-01-6	NA	NR	NA ⁵	NR	NA ⁵
Nitrobenzene	98-95-3	6	0.2	0.17 ⁴	80	120
N-Nitrosodimethylamine	62-75-9	0.8	0.7	NR	0.8	NR
N-Nitrosodi-n-propylamine	621-64-7	10	0.2	0.17 ⁴	10	200
N-Nitrosodiphenylamine	86-30-6	10	0.4	1.1	140	200
2,2'-oxybis(1-chloropropane)	108-60-1	300	5	1.9	6,000	6,000
Pentachlorophenol	87-86-5	0.3	0.3	0.33 ⁴	6	6
Phenanthrene	85-01-8	NA	NA	NR	NA	NR
Phenol	108-95-2	2,000	8	21	40,000	40,000
Polychlorinated biphenyls (PCBs)	1336-36-3	0.5	0.2	1.6	0.5	10
Pyrene	129-00-0	200	840	NA ¹	140	NA ¹
Selenium (total)	7782-49-2	40	11	11	800	800
Silver (total)	7440-22-4	40	1	0.50 ⁴	800	800
Styrene	100-42-5	100	3	2.1	2,000	2,000
Tertiary butyl alcohol (TBA)	75-65-0	100	0.3	0.32	2,000	2,000
1,2,4,5-Tetrachlorobenzene	95-94-3	NA	NR	NA ⁵	NR	NA ⁵
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.00001	NR	0.00010 ⁽⁶⁾	NR	0.00020 ⁽⁶⁾
1,1,2,2-Tetrachloroethane	79-34-5	1	0.007	0.0069	20	20
Tetrachloroethene (PCE) (Tetrachloroethylene)	127-18-4	1	0.005	0.0086	8	20
2,3,4,6-Tetrachlorophenol	58-90-2	200	NR	26	NR	4,000
Thallium	7440-28-0	10	3	NR	10	NR
Toluene	108-88-3	600	7	7.8	12,000	12,000
Toxaphene	8001-35-2	0.03	0.3	6.2	2	40
1,2,4-Trichlorobenzene	120-82-1	9	0.7	0.52	180	180
1,1,1-Trichloroethane	71-55-6	30	0.3	0.2	600	600
1,1,2-Trichloroethane	79-00-5	3	0.02	0.017	60	60
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	1	0.01	0.0065	20	20
Trichlorofluoromethane (Freon 11)	75-69-4	2,000	34	29	40,000	40,000

Contaminant	CAS No.	Ground Water Remediation Standard (ug/l)	Soil Screening Level	Soil Remediation Standard	Soil Leachate Screening Level	Soil Leachate Remediation Standard
			Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway	Migration to Ground Water Exposure Pathway
			2013	2021	2013	2021
			mg/kg	mg/kg	ug/l	ug/l
2,4,5-Trichlorophenol	95-95-4	700	68	68	14,000	14,000
2,4,6-Trichlorophenol	88-06-2	20	0.2	0.86	20	400
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	20,000	NR	NA ¹	NR	NA ¹
1,2,4-Trimethylbenzene	95-63-6	NA	NR	NA ⁵	NR	NA ⁵
Vanadium (total)	7440-62-2	NA	NA	NA ⁵	NA	NA ⁵
Vinyl chloride	75-01-4	1	0.005	0.0067	2	20
Xylenes (total)	1330-20-7	1,000	19	19	20,000	20,000
Zinc (total)	7440-66-6	2,000	930	930	40,000	40,000

NA = Standard not available/not applicable

NR = Compound not regulated

1 – Standard not applicable because criterion is above soil saturation limit

2 – Standard not applicable because drinking water MCL is a secondary standard

3 – Standard is based on natural background

4 – Standard set to soil reporting limit

5 – Ground Water Remediation Standard not available

6 – This standard is used for comparison to site soil or soil leachate data that have been converted to sample-specific TCDD-TEQ values through application of the Toxicity Equivalence Factor Methodology (USEPA 2010) and using the WHO 2005 Mammalian Toxic Equivalency Factors (TEFs).

Summary of Comparison of Soil Screening Levels and Soil Remediation Standards for the Migration to Ground Water Exposure Pathway

2013 soil screening level existed but no 2021 soil remediation standard was adopted	15	
	8	2013 numeric soil screening level existed
	7	2013 soil screening level was "NA"
2021 soil remediation standard adopted but no 2013 soil screening level existed	17	
	7	2021 numeric soil remediation standard adopted
	10	2021 adopted soil remediation standard is "NA" (9 have no ground water quality standard; 1 is above soil saturation level)
2013 soil screening level existed and 2021 soil remediation standard was adopted	121	
	4	2013 soil screening level was "NA "and 2021 adopted soil remediation standard is "NA" (no ground water quality standard exists)
	2	2013 soil screening level was "NA" and a 2021 numeric soil remediation standard was adopted
	18	2013 numeric soil screening level existed but 2021 adopted soil remediation standard is "NA" (16 above soil saturation level; 2 only have secondary ground water quality standards)
	40*	2021 adopted numeric soil remediation standard is less than the former 2013 soil screening level 34 Difference is less than an order of magnitude 5 Difference is an order of magnitude or greater
	18	2021 adopted numeric soil remediation standard is equal to the former 2013 soil screening level
	39	2021 adopted numeric soil remediation standard is greater than the former 2013 soil screening level
*40 b/c of 2'2-oxybis(1-chloropropane)		

Summary of Comparison of Soil Leachate Screening Levels and Soil Leachate Remediation Standards for the Migration to Ground Water Exposure Pathway

2013 soil leachate screening level existed but no 2021 soil leachate remediation standard was adopted	15			
		8		2013 numeric soil leachate screening level existed
		7		2013 soil leachate screening level was "NA"
2021 soil leachate remediation standard adopted but no 2013 soil leachate screening level existed	17			
		7		2021 numeric soil leachate remediation standard
		10		2021 soil leachate remediation standard is "NA" (8 have no ground water quality standard; 2 are above soil saturation level)
2013 soil leachate screening level existed and a 2021 soil leachate remediation standard was adopted	121			
			4	2013 soil leachate screening level was "NA" and 2021 adopted soil leachate remediation standard is "NA" (no ground water quality standard exists)
			2	2013 soil leachate screening level was "NA" and a 2021 numeric soil leachate remediation standard was adopted
			18	2013 numeric soil leachate screening level existed but 2021 adopted soil leachate remediation standard is "NA" (16 above soil saturation level; 2 only have a secondary ground water quality standard)
			0	2021 adopted numeric soil leachate remediation standard is less than the 2013 soil leachate screening level
			64	2021 adopted numeric soil leachate remediation standard is equal to the 2013 soil leachate screening level
			33	2021 adopted numeric soil leachate remediation standard is greater than the 2013 soil leachate screening level (adopted soil leachate remediation standard based on PQL-based Ground Water Quality Standard and not the health based criteria)

Order of Magnitude Contaminants - Soil - Migration to Ground Water Exposure Pathway

Contaminant	CAS #	2013 Soil screening level for the former impact to ground water soil exposure pathway (mg/kg)	2021 Soil remediation standard for the migration to ground water exposure pathway (mg/kg)
Bis(2-ethylhexyl)phthalate	117-81-7	1,200	14
Copper (total)	7440-50-8	11,000	910
4,4'-DDE (p,p'-DDX)	72-55-9	18	0.47
4,4'-DDT	50-29-3	11	0.67
Hexachlorocyclopentadiene	77-47-4	320	2.5

Order of Magnitude Contaminants - Soil Leachate - Migration to Ground Water Exposure Pathway

Contaminant	CAS #	2013 Soil leachate screening level for the former impact to ground water soil exposure pathway (mg/kg)	2021 Soil leachate remediation standard for the migration to ground water exposure pathway (mg/kg)
NONE			