Cleanup Level Look-up Table

Effective December 2014				
CAS No.	Contaminant	Residential Soil (mg/kg)	Migration to Groundwater DAF=1 (mg/kg)	Water Cleanup Levels (ug/L)
	Volatile Organics Compounds (VOCs)			
67-64-1	Acetone	6.10E+04	6.02E+00	3.00E+04
71-43-2	Benzene	1.20E+00	1.39E-03	5.00E+00
75-27-4	Bromodichloromethane	2.90E-01	2.09E-02	8.00E+01
75-25-2	Bromoform (tribromomethane)	6.70E+01	2.31E-02	8.00E+01
74-83-9	Bromomethane (Methyl bromide)	6.80E+01	1.09E-02	4.67E+01
71-36-3	1-Butanol	6.20E+03	6.90E-01	3.30E+03
75-15-0	Carbon disulfide	7.70E+02	1.18E+00	3.30E+03
56-23-5	Carbon tetrachloride	6.50E-01	2.41E-03	5.00E+00
108-90-7	Chlorobenzene	2.80E+02	4.32E-02	1.00E+02
67-66-3	Chloroform	3.20E-01	2.02E-02	8.00E+01
124-48-1	Dibromochloromethane (THM)	7.30E-01	2.13E-02	8.00E+01
107-06-2	1,2-Dichloroethane (EDC)	4.60E-01	1.10E-03	5.00E+00
75-35-4	1,1-Dichloroethylene	2.30E+02	2.46E-03	7.00E+00
156-59-2	1,2-Dichloroethylene (cis)	1.60E+02	1.75E-02	7.00E+01
156-60-5	1,2-Dichloroethylene (trans)	1.60E+03	2.86E-02	1.00E+02
78-87-5	1,2-Dichloropropane	1.00E+00	1.27E-03	5.00E+00
542-75-6	1,3-Dichloropropene	1.80E+00	2.77E-04	8.97E-01
123-91-1	1,4-Dioxane	5.30E+00	1.82E-04	8.97E-01
100-41-4	Ethylbenzene	5.80E+00	4.14E-01	7.00E+02
67-56-1	Methanol	1.25E+05	1.34E+01	6.67E+04
75-09-2	Methylene chloride	5.70E+01	1.10E-03	5.00E+00
78-93-3	Methyl ethyl ketone (2-Butanone)	2.70E+04	4.09E+00	2.00E+04
1634-04-4	Methyl tertbutyl ether (MTBE)	4.70E+01	1.07E-02	4.99E+01
100-42-5	Styrene	6.00E+03	9.86E-02	1.00E+02
79-34-5	1,1,2,2-Tetrachloroethane	6.00E-01	1.32E-04	4.49E-01
127-18-4	Tetrachloroethylene (PCE)	2.40E+01	2.10E-03	5.00E+00
108-88-3	Toluene	4.90E+03	4.06E-01	1.00E+03
71-55-6	1,1,1-Trichloroethane	8.10E+03	7.42E-02	2.00E+02
79-00-5	1,1,2-Trichloroethane	1.10E+00	1.27E-03	5.00E+00
79-01-6	Trichloroethylene (TCE)	9.40E-01	2.01E-03	5.00E+00
95-63-6	1,2,4-Trimethylbenzene	5.80E+01	2.79E-01	3.33E+02
108-67-8	1,3,5-Trimethylbenzene	7.80E+02	1.39E+00	1.67E+03
108-05-4	Vinyl acetate	9.10E+02	6.90E+00	3.33E+04
75-01-4	Vinyl chloride	5.90E-02	6.30E-04	2.00E+00
1330-20-7	Xylenes	5.80E+02	6.01E+00	1.00E+04
108-38-3	m-Xylene	5.50E+02	4.22E+01	6.67E+04
95-47-6	o-Xylene	6.50E+02	3.88E+01	6.67E+04
106-42-3	p-Xylene	5.60E+02	4.49E+00	6.67E+04
	Semi-Volatile Organic Compounds (SVOCs)			
83-32-9	Acenaphthene (PAH)	3.50E+03	1.46E+01	2.00E+03
120-12-7	Anthracene (PAH)	1.70E+04	3.24E+02	1.00E+04
56-55-3	Benz[a]anthracene (PAH)	1.50E-01	4.90E-02	1.23E-01
205-99-2	Benzo[b]fluoranthene (PAH)	1.50E-01	1.51E-01	1.23E-01
207-08-9	Benzo[k]fluoranthene (PAH)	1.50E+00	1.51E+00	1.23E+00
50-32-8	Benzo[a]pyrene (PAH)	1.50E-02	2.04E-01	2.00E-01
111-44-4	Bis(2-chloroethyl)ether	2.30E-01	1.76E-05	8.16E-02
117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)	3.80E+01	9.06E+01	6.00E+00
85-68-7	Butyl benzyl phthalate	2.80E+02	3.85E+02	6.67E+03
106-47-8	4-Chloroaniline	2.70E+00	3.55E-02	1.33E+02
218-01-9	Chrysene (PAH)	1.50E+01	4.90E+00	1.23E+01
53-70-3	Dibenz[ah]anthracene (PAH)	1.50E-02	4.67E-02	1.23E-02
84-74-2	Dibutyl phthalate (di-n-butyl phthalate)	6.20E+03	1.24E+02	3.33E+03
95-50-1	1,2-Dichlorobenzene	1.80E+03	4.94E-01	6.00E+02
106-46-7	1,4-Dichlorobenzene	2.60E+00	6.19E-02	7.50E+01
91-94-1	3,3-Dichlorobenzidine	1.20E+00	1.84E-04	1.99E-01
84-66-2	Diethyl phthalate	4.90E+04	1.30E+01	2.67E+04
105-67-9	2,4-Dimethylphenol	1.20E+03	2.74E-01	6.67E+02
121-14-2	2,4-Dinitrotoluene (re: Dinitrotoluene mixture)	1.70E+00	1.97E-02	6.67E+01
606-20-2	2,6-Dinitrotoluene (re: Dinitrotoluene mixture)	3.60E-01	8.97E-03	3.33E+01
107-21-1	Ethylene glycol	1.20E+05	1.34E+01	6.67E+04
206-44-0	Fluoranthene (PAH)	2.30E+03	1.43E+02	1.33E+03
86-73-7	Fluorene (PAH)	2.30E+03	1.87E+01	1.33E+03
87-68-3	Hexachlorobutadiene	6.80E+00	6.20E-02	1.15E+00
77-47-4	Hexachlorocyclopentadiene	3.70E+02	1.00E+01	5.00E+01
67-72-1	Hexachloroethane	1.30E+01	4.00E-03	6.41E+00
193-39-5	Indeno[1,2,3-cd]pyrene (PAH)	1.50E-01	4.27E-01	1.23E-01
78-59-1	Isophorone	5.60E+02	2.33E-02	9.45E+01

91-57-6	2-Methylnaphthalene	2.30E+02	3.57E-01	1.33E+02
95-48-7	2-Methylphenol (o-Cresol)	3.10E+03	4.85E-01	1.67E+03
108-39-4	3-Methylphenol (m-Cresol)	3.10E+03	8.34E-01	1.67E+03
106-44-5	4-Methylphenol (p-Cresol)	6.20E+03	8.34E-02	1.67E+02
91-20-3	Naphthalene (PAH)	3.80E+00	1.47E+00	6.67E+02
98-95-3	Nitrobenzene	5.10E+00	1.76E-02	6.67E+01
86-30-6	N-Nitrosodiphenylamine	1.10E+02	2.73E-02	1.83E+01
621-64-7	N-Nitroso di-n-propylamine	7.60E-02	2.87E-06	1.28E-02
108-95-2	Phenol	1.80E+04	2.29E+00	1.00E+04
129-00-0	Pyrene (PAH)	1.70E+03	1.05E+02	1.00E+03
110-86-1	Pyridine	7.80E+01	9.06E-03	3.33E+01
120-82-1	1,2,4-Trichlorobenzene	2.40E+01	1.39E-01	7.00E+01
	Pesticides			
309-00-2	Aldrin	3.10E-02	1.29E-02	5.28E-03
12789-03-6	Chlordane	1.80E+00	2.40E-01	2.00E+00
72-54-8	DDD	2.20E+00	3.74E-01	3.74E-01
72-55-9	DDE	1.60E+00	1.18E+00	2.64E-01
50-29-3	DDT	1.90E+00	6.94E-01	2.64E-01
60-57-1	Dieldrin	3.30E-02	1.21E-04	5.61E-03
115-29-7	Endosulfan	3.70E+02	4.68E-01	2.00E+02
72-20-8	Endrin	1.80E+01	2.50E-02	2.00E+00
76-44-8	Heptachlor	1.20E-01	5.64E-01	4.00E-01
1024-57-3	Heptachlor epoxide	5.90E-02	1.67E-02	2.00E-01
118-74-1	Hexachlorobenzene	3.30E-01	5.52E-02	1.00E+00
319-84-6	HCH (alpha) Lindane	8.50E-02	2.04E-05	1.42E-02
319-85-7	HCH (beta) Lindane	3.00E-01	7.13E-05	4.99E-02
58-89-9	HCH (gamma) Lindane	5.60E-01	2.54E-04	2.00E-01
72-43-5	Methoxychlor	3.10E+02	3.92E+00	4.00E+01
8001-35-2	Toxaphene	4.40E-01	7.72E-01	3.00E+00
	PCBs			
12674-11-2	Aroclor-1016	4.00E+00	2.40E-02	5.00E-01
11104-28-2	Aroclor-1221	1.50E-01	4.30E-03	5.00E-01
11141-16-5	Aroclor-1232	1.50E-01	4.30E-03	5.00E-01
53469-21-9	Aroclor-1242	2.40E-01	3.92E-02	5.00E-01
12672-29-6	Aroclor-1248	2.40E-01	3.84E-02	5.00E-01
11097-69-1	Aroclor-1254	2.40E-01	6.54E-02	5.00E-01
11096-82-5	Aroclor-1260	2.40E-01	1.75E-01	5.00E-01
	Explosives/Dioxins			
1746-01-6	2,3,7,8-TCDD (Dioxin)	4.90E-06	7.48E-06	3.00E-05
	Petroleum Products			
	Gasoline-range organics (GRO)	[a]	5.90E+01	6.60E+03
	Diesel-range organics (DRO)	2.30E+03		1000 or 10000
	Crude oil	2.30E+03		1000 or 10000
	Oil and Grease	Virtually Free		Virtually Free
	Metals			
7429-90-5	Aluminum	7.70E+04	5.00E+04	3.30E+03
7440-36-0	Antimony	3.10E+01	2.70E-01	6.00E+00
7440-38-2	Arsenic, Inorganic	6.10E-01 [b]	2.93E-01 [b]	1.00E+01
7440-39-3	Barium	1.50E+04	8.26E+01	2.00E+03
7740-41-7	Beryllium	1.60E+02	3.16E+00	4.00E+00
7440-42-8	Boron	1.60E+04	2.48E+00	7.50E+02
7440-43-9	Cadmium	7.00E+01	3.77E-01	5.00E+00
7440-43-3	Total Chromium (1:6 ratio - Cr VI:Cr III)	NA	1.80E+05	1.00E+02
16065-83-1	Chromium III	1.20E+05	9.00E+07	5.00E+04
18540-29-9	Chromium VI	3.10E-01	1.93E+00	1.00E+02
7440-48-4	Cobalt	2.30E+01	4.53E-01	1.00E+01
7440-50-8	Copper	3.10E+03	4.59E+01	1.30E+03
57-12-5	Cyanide (amenable) (CN-)	2.10E+01	6.80E+00	6.67E+02
57-12-5	Cyanide (free)	NA	NA	2.00E+02
74-90-8	Cyanide (hydrogen)	2.30E+01	NA	6.67E+02
7782-41-4	Fluorine (soluble fluoride)	4.70E+03	3.01E+02	2.00E+03
7439-89-6	Iron	5.50E+04	5.90E+02	2.33E+04
7439-92-1	Lead	4.00E+02	1.35E+01 [b]	1.50E+01
78-00-2	Lead (tetraethyl)	6.20E-03	NA	3.33E-03
7439-93-2	Lithium	1.60E+02	2.00E+01	6.67E+01
7439-96-5	Manganese	1.80E+03	3.27E+00	5.00E+01
7487-94-7	Mercury Chloride	2.30E+01	NA	2.00E+00
7439-97-6	Mercury (elemental)	9.40E+00	1.05E-01	2.00E+00
22967-92-6	Mercury (methyl)	7.80E+00	1.00E-03	3.33E+00
7439-98-7	Molybdenum	3.90E+02	3.38E+00	1.67E+02
7440-02-0	Nickel (soluble salts)	1.50E+03	4.35E+01	6.67E+02
7723-14-0	Phosphorus (white)	1.60E+00	2.53E-03	6.67E-01
7782-49-2	Selenium	3.90E+02	2.65E-01 [b]	5.00E+01

7440-22-4	Silver	3.90E+02	8.60E-01	1.00E+02
7440-24-6	Strontium, stable	4.70E+04	7.06E+02	2.00E+04
7440-28-0	Thallium	7.80E-01	1.43E-01	2.00E+00
7440-31-5	Tin	4.70E+04	5.01E+03	2.00E+04
7440-61-1	Uranium	2.30E+02	1.35E+01	3.00E+01
7440-62-2	Vanadium	3.90E+02	2.33E+02	2.33E+02
7440-66-6	Zinc	2.30E+04	3.12E+02	5.00E+03
	General Chemistry			
1332-21-4	Asbestos (fibers/L>10um length)	NA		7 MFL
7664-41-7	Ammonia (NH3N)	NA		5.00E+02
7773-06-0	Ammonium sulfamate	1.60E+04		6.67E+03
15541-45-4	Bromate	9.10E-01		1.00E+01
16887-00-6	Chloride	NA		2.50E+05
7782-50-5	Chlorine	7.50E+03		4.00E+03
10049-04-4	Chlorine Dioxide	2.30E+03		8.00E+02
7758-19-2	Chlorite	2.30E+03		1.00E+03
506-77-4	Cyanogen chloride	3.90E+03		1.67E+03
16984-48-8	Fluoride	3.10E+03		4.00E+03
7783-06-4	Hydrogen Sulfide	2.80E+06		5.00E+01
10599-90-3	Monochloramine	7.80E+03		4.00E+03
14797-55-8	Nitrate	1.30E+05		1.00E+04
14797-65-0	Nitrite	7.80E+03		1.00E+03
	Nitrate + Nitrite (Both as N)	NA		1.00E+04
7790-98-9	Perchlorate	5.50E+01		2.33E+01
143-33-9	Sodium Cyanide	7.80E+01		2.00E+02
14808-79-8	Sulfate	NA		2.50E+05
	Total Dissolved Solids (TDS)	NA		5.00E+05
	pH	NA		6.5 - 8.5
	Radium 226/228	NA		5 pC/L

a Cleanup levels for GRO in soils are dependant upon site-specific depth to groundwater as well as site-specific exposure parameters. Please see Fact Sheet #12, Appendix A for further information.

b Statewide background concentrations may be eligible for this contaminant. Please check with your VRP project manager to see if it is applicable at your site.

* Toxicity values and Residential soil values based on EPA Region 9 RSL tables: http://www.epa.gov/region9/superfund/prg/

Soil Screening Guidance: User's Guide (EPA, 1996), and Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (EPA 2002)

US EPA. 2013. Estimation Programs Interface Suite™ for Microsoft® Windows, v 4.11. United States Environmental Protection Agency, Washington, DC, USA.

United States Environmental Protection Agency Regions 3, 6, and 9. 2013. Regional Screening Levels for Chemical Contaminants at Superfund Sites.