Table 1. DTSC-Recommended Screening Levels for Soil[a]

		Toxicity Factor for Final Screening Value								Screening Levels for Residential Soil (mg/kg)		Screening Levels for Commercial/Industrial Soil (mg/kg)	
		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration		Cancer Endpoint	Noncancer Endpoint	Cancer Endpoint	Noncancer Endpoint
Analyte	CAS #	SFo (mg/kg-d)$^{-1}$	Source	IUR (µg/m^3)$^{-1}$	Source	RfDo (mg/kg-d)	Source	RfC or REL (µg/m^3)	Source	DTSC-SL	DTSC-SL	DTSC-SL	DTSC-SL
USEPA RSL Analytes													
Acrylamide	79-06-1	4.5E+00	OEHHA	1.3E-03	OEHHA	--	--	--	--	--	--	4.2E-01	--
Acrylonitrile	107-13-1	1.0E+00	OEHHA	2.9E-04	OEHHA	--	--	--	--	6.8E-02	--	3.0E-01	--
Ammonia	7664-41-7	--	--	--	--	1.0E+00	HEAST	2.0E+02	OEHHA	--	7.8E+04	--	1.2E+06
Arsenic, Inorganic	7440-38-2	9.5E+00	OEHHA PHG	3.3E-03	OEHHA	3.5E-06	OEHHA	1.5E-02	OEHHA	1.1E-01	4.0E-01	4.2E-01	5.0E+00
Benzaldehyde	100-52-7	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	3.0E+04
Benzene	71-43-2	1.0E-01	OEHHA	2.9E-05	OEHHA	4.0E-03	IRIS	3.0E+00	OEHHA	3.3E-01	1.1E+01	1.4E+00	4.7E+01
Benzenethiol	108-98-5	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route	--	--	--	2.7E+02
Beryllium and compounds	7440-41-7	--	--	2.4E-03	OEHHA	2.0E-04	OEHHA PHG	7.0E-03	OEHHA	1.6E+03	3.0E+00	6.9E+03	2.1E+01
Bromodichloromethane	75-27-4	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	2.8E+02	--	1.3E+03
Bromoform	75-25-2	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	2.7E+03
Butadiene, 1,3-	106-99-0	3.4E+00	OEHHA	1.7E-04	OEHHA	--	--	--	--	1.3E-02	--	5.9E-02	--
Butylbenzene, n-	104-51-8	--	--	--	--	5.0E-02	PPRTV	2.0E+02	Route	--	1.2E+03	--	6.4E+03
Butylbenzene, sec-	135-98-8	--	--	--	--	1.0E-01	sPPRTV	4.0E+02	Route	--	2.2E+03	--	1.2E+04
Butylbenzene, tert-	98-06-6	--	--	--	--	1.0E-01	sPPRTV	4.0E+02	Route	--	2.2E+03	--	1.2E+04
Cadmium (Diet)	7440-43-9 (diet)	--	--	--	--	6.3E-06	OEHHA PHG	1.0E-02	OEHHA PHG	--	4.5E+00	--	5.7E+00
Carbon Tetrachloride	56-23-5	1.5E-01	OEHHA	4.2E-05	OEHHA	--	--	--	--	9.9E-02	--	4.3E-01	--
Chlordane	12789-03-6	1.3E+00	OEHHA	3.4E-04	OEHHA	--	--	--	--	4.3E-01	--	1.7E+00	--
Chloro-2-methylaniline, 4-	95-69-2	2.7E-01	OEHHA	7.7E-05	OEHHA	--	--	--	--	--	--	7.0E+00	--
Chloroacetaldehyde, 2-	107-20-0	2.7E-01	sPPRTV	6.8E-05	Route	--	--	--	--	5.6E-01	--	2.3E+00	--
Chlorobutane, 1-	109-69-3	--	--	--	--	4.0E-02	PPRTV	1.6E+02	Route	--	2.7E+02	--	1.2E+03
Chlorotoluene, o-	95-49-8	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	4.8E+02	--	2.6E+03
Chlorotoluene, p-	106-43-4	--	--	--	--	2.0E-02	sPPRTV	8.0E+01	Route	--	4.4E+02	--	2.3E+03
Chromium(III), Insoluble Salts	16065-83-1	--	--	--	--	1.5E+00	IRIS	--	--	--	3.6E+04	--	2.7E+05
Crotonaldehyde, trans-	123-73-9	1.9E+00	HEAST	4.8E-04	Route	1.0E-03	PPRTV	4.0E+00	Route	8.7E-02	--	3.8E-01	2.6E+02
Cyanides	Cyanides	--	--	--	--	--	--	--	--	--	--	--	--
~Cyanogen	460-19-5	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	4.5E+00	--	2.0E+01
~Cyanogen Bromide	506-68-3	--	--	--	--	9.0E-02	IRIS	3.6E+02	Route	--	3.1E+02	--	1.3E+03
~Cyanogen Chloride	506-77-4	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route	--	3.3E+02	--	1.5E+03
Dibromochloromethane	124-48-1	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	2.3E+03
Dibromoethane, 1,2-	106-93-4	--	--	--	--	9.0E-03	IRIS	8.0E-01	OEHHA	--	7.2E+00	--	3.1E+01
Dichlorobenzidine, 3,3'-	91-94-1	1.2E+00	OEHHA	3.4E-04	OEHHA	--	--	--	--	--	--	1.6E+00	--
Dichloroethane, 1,1-	75-34-3	--	--	--	--	2.0E-01	PPRTV	8.0E+02	Route	--	1.6E+03	--	7.2E+03
Dichloroethylene, 1,2-cis-	156-59-2	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	1.9E+01	--	8.6E+01
Dichloroethylene, 1,2-trans-	156-60-5	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	1.9E+02	--	8.6E+02
Dichloropropane, 1,3-	142-28-9	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route	--	4.2E+02	--	2.2E+03
Dichloropropene, 1,3-	542-75-6	9.1E-02	OEHHA	1.6E-05	OEHHA	--	--	--	--	5.8E-01	--	2.6E+00	--
Diisopropyl Methylphosphonate	1445-75-6	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route	--	--	--	2.8E+04
Dimethylaniline, N,N-	121-69-7	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	7.5E+02
Epichlorohydrin	106-89-8	8.0E-02	OEHHA	2.3E-05	OEHHA	--	--	--	--	1.8E+00	--	8.2E+00	--
Ethyl Acrylate	140-88-5	4.8E-02	HEAST	1.2E-05	Route	--	--	--	--	1.4E+00	--	6.0E+00	--
Ethyl Chloride (Chloroethane)	75-00-3	4.7E-03	OEHHA NSRL	1.2E-06	Route	--	--	--	--	3.1E+00	--	1.3E+01	--
Ethyl Ether	60-29-7	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route	--	2.3E+03	--	1.1E+04
Furans	Furans	--	--	--	--	--	--	--	--	--	--	--	--
~Furan	110-00-9	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	9.6E+00	--	4.4E+01
Hexachlorobutadiene	87-68-3	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route	--	--	--	1.5E+02
Lead Compounds	Lead Compounds	--	--	--	--	--	--	--	--	--	--	--	--
~Lead subacetate	1335-32-6	3.8E-02	OEHHA	1.1E-05	OEHHA	--	--	--	--	1.4E+01	--	5.0E+01	--
Manganese (Diet)	7439-96-5 (diet)	--	--	--	--	1.4E-01	IRIS	9.0E-02	OEHHA	--	9.8E+03	--	1.2E+05
Mercury Compounds	Mercury Compounds	--	--	--	--	--	--	--	--	--	--	--	--
~Mercuric Chloride (and other Mercury salts)	7487-94-7	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA	--	--	--	9.2E+01
~Mercury (elemental)	7439-97-6	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA	--	8.9E-01	--	3.9E+00
Methyl Acetate	79-20-9	--	--	--	--	1.0E+00	sPPRTV	4.0E+03	Route	--	2.4E+04	--	1.3E+05
Methylene Chloride	75-09-2	1.4E-02	OEHHA	1.0E-06	OEHHA	--	--	--	--	5.5E+00	--	2.4E+01	--
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.5E+00	OEHHA	4.3E-04	OEHHA	--	--	--	--	3.5E-01	--	1.3E+00	--
Methylstyrene, Alpha-	98-83-9	--	--	--	--	7.0E-02	HEAST	2.8E+02	Route	--	--	--	1.3E+04
Mineral oils	8012-95-1	--	--	--	--	3.0E+00	PPRTV	1.2E+04	Route	--	1.2E+04	--	5.5E+04
Nickel Acetate	373-02-4	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--
Nickel Carbonate	3333-67-3	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--
Nickel Carbonyl	13463-39-3	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--
Nickel Hydroxide	12054-48-7	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--

Table 1. DTSC-Recommended Screening Levels for Soil[a]

		Toxicity Factor for Final Screening Value								Screening Levels for Residential Soil (mg/kg)		Screening Levels for Commercial/Industrial Soil (mg/kg)	
		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration		Cancer Endpoint	Noncancer Endpoint	Cancer Endpoint	Noncancer Endpoint
Analyte	CAS #	SFo (mg/kg-d)$^{-1}$	Source	IUR (µg/m^3)$^{-1}$	Source	RfDo (mg/kg-d)	Source	RfC or REL (µg/m^3)	Source	DTSC-SL	DTSC-SL	DTSC-SL	DTSC-SL
Nickel Oxide	1313-99-1	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--
Nickel Refinery Dust	Nickel refinery dust	9.1E-01	OEHHA	2.6E-04	OEHHA	--	--	--	--	4.2E-01	--	1.3E+00	--
Nickel Soluble Salts	7440-02-0	9.1E-01	OEHHA	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA	4.2E-01	4.9E+02	1.3E+00	4.3E+03
Phthalates	Phthalates	--	--	--	--	--	--	--	--	--	--	--	--
~Dimethylterephthalate	120-61-6	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	2.9E+04
Polychlorinated Biphenyls (PCBs)	Polychlorinated Biphenyls	--	--	--	--	--	--	--	--	--	--	--	--
~Aroclor 1016	12674-11-2	2.0E+00	OEHHA	5.7E-04	OEHHA	--	--	--	--	2.3E-01	--	7.8E-01	--
Polynuclear Aromatic Hydrocarbons (PAHs)	PAH	--	--	--	--	--	--	--	--	--	--	--	--
~Benzo[k]fluoranthene	207-08-9	1.2E+00	OEHHA	1.1E-04	OEHHA	--	--	--	--	3.9E-01	--	1.3E+00	--
~Chrysene	218-01-9	1.2E-01	OEHHA	1.1E-05	OEHHA	--	--	--	--	3.9E+00	--	1.3E+01	--
Tetrachloroethane, 1,1,1,2-	630-20-6	--	--	--	--	3.0E-02	IRIS	1.2E+02	Route	--	5.5E+02	--	2.8E+03
Tetrachloroethane, 1,1,2,2-	79-34-5	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	4.4E+03
Tetrachloroethylene	127-18-4	5.4E-01	OEHHA PHG	5.9E-06	OEHHA	--	--	--	--	6.0E-01	--	2.7E+00	--
Toluene	108-88-3	--	--	--	--	8.0E-02	IRIS	3.0E+02	OEHHA	--	1.1E+03	--	5.4E+03
Total Petroleum Hydrocarbons (Aliphatic High)	TPH-o (aliphatic)	--	--	--	--	2.0E+00	PEA	8.0E+03	Route	--	8.4E+03	--	3.7E+04
Trichloroethane, 1,1,1-	71-55-6	--	--	--	--	2.0E+00	IRIS	1.0E+03	OEHHA	--	1.7E+03	--	7.3E+03
Trichlorophenol, 2,4,6-	88-06-2	7.0E-02	OEHHA	2.0E-05	OEHHA	--	--	--	--	7.5E+00	--	2.7E+01	--
Trichloropropane, 1,1,2-	598-77-6	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route	--	--	--	1.1E+03
Trichloropropane, 1,2,3-	96-18-4	3.0E+01	IRIS	7.5E-03	Route	--	--	--	--	--	--	2.1E-02	--
Trimethylbenzene, 1,3,5-	108-67-8	--	--	--	--	1.0E-02	sPPRTV	4.0E+01	Route	--	2.1E+02	--	1.1E+03
Vanadium and Compounds	7440-62-2	--	--	--	--	5.0E-03	RSL	1.0E-01	ATSDR	--	--	--	1.5E+03
Vinyl Chloride	75-01-4	2.7E-01	OEHHA	7.8E-05	OEHHA	--	--	--	--	--	--	1.5E-01	--
Additional Analytes													
Beryllium Sulfate	13510-49-1	--	--	8.6E-01	OEHHA	2.0E-04	OEHHA PHG	7.0E-03	OEHHA	4.4E+00	3.0E+00	1.9E+01	2.1E+01
Chloropropane, 2-	75-29-6	--	--	--	--	--	--	1.0E+02	DTSC J&E	--	1.3E+02	--	5.3E+02
Dichlorobenzene, 1,3-	541-73-1	--	--	--	--	3.0E-02	DTSC J&E	1.2E+02	Route	--	2.4E+02	--	1.1E+03
Methylcyclohexane	108-87-2	--	--	--	--	--	--	6.0E+03	Cyclohexane	--	5.5E+03	--	2.3E+04

[a] Summarized from Appendix A, Table A-1. Screening levels in the table are based on DTSC-modified factors and are at least three-times more stringent than the corresponding derived USEPA value based on USEPA factors;
"--" = indicates that, if calculated, the DTSC-modified approach was not at least three-times more stringent than the USEPA Superfund approach OR that no value could be calculated.

(mg/kg-d)$^{-1}$ = per (milligram per kilogram--day)
(µg/m^3)$^{-1}$ = per (microgram per cubic meter)
µg/m^3 = micrograms per cubic meter
ATSDR = Agency for Toxic Substances and Disease Registry
CAS# = Chemical Abstracts Service Registry Number
DTSC = California Department of Toxic Substances Control
HEAST = Health Effects Assessment Summary Tables
IRIS = USEPA's *Integrated Risk Information System*
IUR = inhalation unit-risk factor
J&E = Johnson and Etinger model for vapor intrusion
mg/kg = milligrams per kilogram
mg/kg-d = milligrams per kilogram--day
NSRL = no significan risk level
OEHHA = California Office of Environmental Health Hazard Assessment
PEA = DTSC's Preliminary Endangerment Assessment manual
PHG = Public Health Goal toxicity factor
PPRTV = provisional peer-reviewed toxicity value
RfC = reference concentration
REL = reference exposure level
RfDo = oral reference dose
Route = route extrapolation from an oral toxicity value to an inhalation toxicity value
IUR (µg/m^3)$^{-1}$ = SFo (mg/kg-day)$^{-1}$ × (1/80 kg) × 20 m^3/day × 0.001 mg/µg
RfC (µg/m^3) = RfDo (mg/kg-day) × 80 kg × (1 day/20 m^3) × 1000 µg/mg
RSL = USEPA Regional Screening Level
SFo = oral slope factor
SL = screening level
sPPRTV = screening-level PPRTV
USEPA = U.S. Environmental Protection Agency