Table A-1. DTSC-Recommended Screening Levels for Soil

		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)	Ref.	RfC or REL (µg/m^3)	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source
USEPA RSL Analytes																									
Acrylamide	79-06-1	4.5E+00	OEHHA	1.3E-03	OEHHA	2.0E-03	IRIS	6.0E+00	IRIS	2.4E-01	2.6E-02	2.6E-02	DTSC	1.3E+02	1.2E+02	1.2E+02	DTSC	4.6E+00	4.2E-01	4.2E-01	DTSC	1.6E+03	1.4E+03	1.4E+03	DTSC
Acrylonitrile	107-13-1	1.0E+00	OEHHA	2.9E-04	OEHHA	4.0E-02	ATSDR	2.0E+00	IRIS	2.6E-01	6.8E-02	6.8E-02	DTSC	1.6E+01	4.0E+01	1.6E+01	USEPA	1.1E+00	3.0E-01	3.0E-01	DTSC	6.8E+01	1.7E+02	6.8E+01	USEPA
Arsenic, Inorganic	7440-38-2	9.5E+00	OEHHA PHG	3.3E-03	OEHHA	3.5E-06	OEHHA	1.5E-02	OEHHA	6.8E-01	6.7E-02	6.7E-02	DTSC	3.5E+01	2.5E-01	2.5E-01	DTSC	3.0E+00	2.8E-01	2.8E-01	DTSC	4.8E+02	3.4E+00	3.4E+00	DTSC
Benzaldehyde	100-52-7	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	7.8E+03	4.3E+03	4.3E+03	DTSC	--	--	--	--	1.2E+05	3.0E+04	3.0E+04	DTSC
Benzene	71-43-2	1.0E-01	OEHHA	2.9E-05	OEHHA	4.0E-03	IRIS	3.0E+00	OEHHA	1.2E+00	3.3E-01	3.3E-01	DTSC	8.3E+01	1.1E+01	1.1E+01	DTSC	5.1E+00	1.4E+00	1.4E+00	DTSC	4.3E+02	4.7E+01	4.7E+01	DTSC
Benzenethiol	108-98-5	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route	--	--	--	--	7.8E+01	4.0E+01	4.0E+01	DTSC	--	--	--	--	1.2E+03	2.7E+02	2.7E+02	DTSC
Beryllium and compounds	7440-41-7	--	--	2.4E-03	IRIS	2.0E-04	OEHHA PHG	7.0E-03	OEHHA	1.6E+03	1.6E+03	1.6E+03	USEPA	1.6E+02	1.5E+01	1.5E+01	DTSC	6.9E+03	6.9E+03	6.9E+03	USEPA	2.3E+03	2.2E+02	2.2E+02	DTSC
Bromodichloromethane	75-27-4	1.3E-01	OEHHA	3.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	3.0E-01	2.9E-01	2.9E-01	DTSC	1.6E+03	2.8E+02	2.8E+02	DTSC	1.3E+00	1.3E+00	1.3E+00	DTSC	2.3E+04	1.3E+03	1.3E+03	DTSC
Bromoform	75-25-2	1.1E-02	OEHHA	1.1E-06	IRIS	2.0E-02	IRIS	8.0E+01	Route	2.0E+01	1.8E+01	1.8E+01	DTSC	1.6E+03	5.4E+02	5.4E+02	DTSC	8.7E+01	8.0E+01	8.0E+01	DTSC	2.3E+04	3.0E+03	3.0E+03	DTSC
Butadiene, 1,3-	106-99-0	6.0E-01	OEHHA	1.7E-04	OEHHA	--	--	2.0E+00	IRIS	5.8E-02	1.4E-02	1.4E-02	DTSC	1.8E+00	1.8E+00	1.8E+00	USEPA	2.6E-01	6.2E-02	6.2E-02	DTSC	7.7E+00	7.7E+00	7.7E+00	USEPA
Butanol, N-	71-36-3	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	7.8E+03	4.8E+03	4.8E+03	DTSC	--	--	--	--	1.2E+05	3.7E+04	3.7E+04	DTSC
Butylbenzene, n-	104-51-8	--	--	--	--	5.0E-02	PPRTV	2.0E+02	Route	--	--	--	--	3.9E+03	1.2E+03	1.2E+03	DTSC	--	--	--	--	5.8E+04	6.4E+03	6.4E+03	DTSC
Butylbenzene, sec-	135-98-8	--	--	--	--	1.0E-01	Screening PPRTV	4.0E+02	Route	--	--	--	--	7.8E+03	2.2E+03	2.2E+03	DTSC	--	--	--	--	1.2E+05	1.2E+04	1.2E+04	DTSC
Butylbenzene, tert-	98-06-6	--	--	--	--	1.0E-01	Screening PPRTV	4.0E+02	Route	--	--	--	--	7.8E+03	2.2E+03	2.2E+03	DTSC	--	--	--	--	1.2E+05	1.2E+04	1.2E+04	DTSC
Cadmium (Diet)	7440-43-9 (diet)	--	--	4.2E-03	OEHHA	6.3E-06	OEHHA PHG	1.0E-02	ATSDR	2.1E+03	9.1E+02	9.1E+02	DTSC	7.1E+01	5.2E+00	5.2E+00	DTSC	9.3E+03	4.0E+03	4.0E+03	DTSC	9.8E+02	7.3E+00	7.3E+00	DTSC
Carbon Tetrachloride	56-23-5	1.5E-01	OEHHA	4.2E-05	OEHHA	4.0E-03	IRIS	4.0E+01	OEHHA	6.6E-01	9.9E-02	9.9E-02	DTSC	1.0E+02	5.2E+01	5.2E+01	DTSC	2.9E+00	4.3E-01	4.3E-01	DTSC	5.8E+02	2.5E+02	2.5E+02	DTSC
Chlordane	12789-03-6	1.3E+00	OEHHA	3.4E-04	OEHHA	5.0E-04	IRIS	7.0E-01	IRIS	1.7E+00	4.3E-01	4.3E-01	DTSC	3.4E+01	3.2E+01	3.2E+01	DTSC	7.5E+00	1.7E+00	1.7E+00	DTSC	4.2E+02	3.7E+02	3.7E+02	DTSC
Chloro-2-methylaniline, 4-	95-69-2	2.7E-01	OEHHA	7.7E-05	OEHHA	3.0E-03	Screening PPRTV	--	--	5.4E+00	1.9E+00	1.9E+00	DTSC	1.9E+02	1.8E+02	1.8E+02	DTSC	2.3E+01	7.0E+00	7.0E+00	DTSC	2.5E+03	2.0E+03	2.0E+03	DTSC
Chloroacetaldehyde, 2-	107-20-0	2.7E-01	Screening PPRTV	6.8E-05	Route	--	--	--	--	2.6E+00	6.0E-01	6.0E-01	DTSC	--	--	--	--	1.2E+01	2.7E+00	2.7E+00	DTSC	--	--	--	--
Chlorobutane, 1-	109-69-3	--	--	--	--	4.0E-02	PPRTV	1.6E+02	Route	--	--	--	--	3.1E+03	2.7E+02	2.7E+02	DTSC	--	--	--	--	4.7E+04	1.2E+03	1.2E+03	DTSC
Chlorotoluene, o-	95-49-8	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	--	1.6E+03	4.8E+02	4.8E+02	DTSC	--	--	--	--	2.3E+04	2.6E+03	2.6E+03	DTSC
Chlorotoluene, p-	106-43-4	--	--	--	--	2.0E-02	Screening PPRTV	8.0E+01	Route	--	--	--	--	1.6E+03	4.4E+02	4.4E+02	DTSC	--	--	--	--	2.3E+04	2.3E+03	2.3E+03	DTSC
Chromium(III), Insoluble Salts	16065-83-1	--	--	--	--	1.5E+00	IRIS	--	--	--	--	--	--	1.2E+05	3.6E+04	3.6E+04	DTSC	--	--	--	--	1.8E+06	2.7E+05	2.7E+05	DTSC
Crotonaldehyde, trans-	123-73-9	1.9E+00	HEAST	4.8E-04	Route	1.0E-03	PPRTV	4.0E+00	Route	3.7E-01	8.7E-02	8.7E-02	DTSC	7.8E+01	4.0E+01	4.0E+01	DTSC	1.7E+00	3.8E-01	3.8E-01	DTSC	1.2E+03	2.6E+02	2.6E+02	DTSC
Cyanides																									
~Cyanogen	460-19-5	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	--	--	--	7.8E+01	2.7E+01	2.7E+01	DTSC	--	--	--	--	1.2E+03	1.5E+02	1.5E+02	DTSC
~Cyanogen Bromide	506-68-3	--	--	--	--	9.0E-02	IRIS	3.6E+02	Route	--	--	--	--	7.0E+03	1.5E+03	1.5E+03	DTSC	--	--	--	--	1.1E+05	7.5E+03	7.5E+03	DTSC
~Cyanogen Chloride	506-77-4	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route	--	--	--	--	3.9E+03	1.8E+03	1.8E+03	DTSC	--	--	--	--	5.8E+04	1.2E+04	1.2E+04	DTSC
Dibromobenzene, 1,3-	108-36-1	--	--	--	--	4.0E-04	Screening PPRTV	1.6E+00	Route	--	--	--	--	3.1E+01	1.4E+01	1.4E+01	DTSC	--	--	--	--	4.7E+02	9.1E+01	9.1E+01	DTSC
Dibromobenzene, 1,4-	106-37-6	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route	--	--	--	--	7.8E+02	4.3E+02	4.3E+02	DTSC	--	--	--	--	1.2E+04	2.9E+03	2.9E+03	DTSC
Dibromochloromethane	124-48-1	9.4E-02	OEHHA	2.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	7.6E-01	7.5E-01	7.5E-01	DTSC	1.6E+03	4.7E+02	4.7E+02	DTSC	3.3E+00	3.3E+00	3.3E+00	DTSC	2.3E+04	2.5E+03	2.5E+03	DTSC
Dibromoethane, 1,2-	106-93-4	2.0E+00	IRIS	6.0E-04	IRIS	9.0E-03	IRIS	8.0E-01	OEHHA	3.7E-02	1.2E-01	3.7E-02	USEPA	7.4E+01	7.2E+00	7.2E+00	DTSC	1.6E-01	5.7E-01	1.6E-01	USEPA	3.3E+02	3.1E+01	3.1E+01	DTSC
Dichlorobenzidine, 3,3'-	91-94-1	1.2E+00	OEHHA	3.4E-04	OEHHA	--	--	--	--	1.2E+00	4.4E-01	4.4E-01	DTSC	--	--	--	--	5.1E+00	1.6E+00	1.6E+00	DTSC	--	--	--	--
Dichloroethane, 1,1-	75-34-3	5.7E-03	OEHHA	1.6E-06	OEHHA	2.0E-01	PPRTV	8.0E+02	Route	3.6E+00	3.6E+00	3.6E+00	USEPA	1.6E+04	1.6E+03	1.6E+03	DTSC	1.6E+01	1.6E+01	1.6E+01	USEPA	2.3E+05	7.2E+03	7.2E+03	DTSC
Dichloroethylene, 1,2-cis-	156-59-2	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	1.6E+02	1.9E+01	1.9E+01	DTSC	--	--	--	--	2.3E+03	8.6E+01	8.6E+01	DTSC
Dichloroethylene, 1,2-trans-	156-60-5	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	--	1.6E+03	1.3E+02	1.3E+02	DTSC	--	--	--	--	2.3E+04	6.0E+02	6.0E+02	DTSC
Dichloropropane, 1,3-	142-28-9	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route	--	--	--	--	1.6E+03	4.2E+02	4.2E+02	DTSC	--	--	--	--	2.3E+04	2.2E+03	2.2E+03	DTSC
Dichloropropene, 1,3-	542-75-6	9.1E-02	OEHHA	1.6E-05	OEHHA	3.0E-02	IRIS	2.0E+01	IRIS	1.9E+00	5.8E-01	5.8E-01	DTSC	7.3E+01	7.3E+01	7.3E+01	USEPA	8.3E+00	2.6E+00	2.6E+00	DTSC	3.1E+02	3.1E+02	3.1E+02	USEPA
Dimethylaniline, N,N-	121-69-7	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	1.6E+02	9.8E+01	9.8E+01	DTSC	--	--	--	--	2.3E+03	7.5E+02	7.5E+02	DTSC
Epichlorohydrin	106-89-8	8.0E-02	OEHHA	2.3E-05	OEHHA	6.0E-03	PPRTV	1.0E+00	IRIS	2.7E+01	1.8E+00	1.8E+00	DTSC	1.9E+01	5.3E+01	1.9E+01	USEPA	1.2E+02	8.2E+00	8.2E+00	DTSC	8.3E+01	2.4E+02	8.3E+01	USEPA
Ethyl Acrylate	140-88-5	4.8E-02	HEAST	1.2E-05	Route	5.0E-03	PPRTV	8.0E+00	PPRTV	1.4E+01	1.4E+00	1.4E+00	DTSC	4.7E+01	4.7E+01	4.7E+01	USEPA	6.8E+01	6.0E+00	6.0E+00	DTSC	2.2E+02	2.2E+02	2.2E+02	USEPA
Ethyl Chloride (Chloroethane)	75-00-3	4.7E-03	OEHHA NSRL	1.2E-06	Route	--	--	1.0E+04	IRIS	--	3.1E+00	3.1E+00	DTSC	1.4E+04	4.1E+04	1.4E+04	USEPA	--	1.3E+01	1.3E+01	DTSC	5.7E+04	1.7E+05	5.7E+04	USEPA
Ethyl Ether	60-29-7	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route	--	--	--	--	1.6E+04	2.3E+03	2.3E+03	DTSC	--	--	--	--	2.3E+05	1.1E+04	1.1E+04	DTSC
Furans																									
~Furan	110-00-9	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	--	--	--	7.3E+01	9.6E+00	9.6E+00	DTSC	--	--	--	--	1.0E+03	4.4E+01	4.4E+01	DTSC
Hexachlorobutadiene	87-68-3	7.8E-02	IRIS	2.2E-05	IRIS	1.0E-03	PPRTV	4.0E+00	Route	1.2E+00	1.2E+00	1.2E+00	USEPA	7.8E+01	2.9E+01	2.9E+01	DTSC	5.3E+00	5.3E+00	5.3E+00	USEPA	1.2E+03	1.6E+02	1.6E+02	DTSC
Isobutyl Alcohol	78-83-1	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route	--	--	--	--	2.3E+04	1.4E+04	1.4E+04	DTSC	--	--	--	--	3.5E+05	1.1E+05	1.1E+05	DTSC
Lead Compounds																									
~Lead subacetate	1335-32-6	3.8E-02	OEHHA	1.1E-05	OEHHA	--	--	--	--	6.4E+01	1.4E+01	1.4E+01	DTSC	--	--	--	--	2.7E+02	5.0E+01	5.0E+01	DTSC	--	--	--	--
~Tetraethyl Lead	78-00-2	--	--	--	--	1.0E-07	IRIS	4.0E-04	Route	--	--	--	--	7.8E-03	7.3E-04	7.3E-04	DTSC	--	--	--	--	1.2E-01	3.3E-03	3.3E-03	DTSC
Mercury Compounds																									
~Mercuric Chloride (and other Mercury salts)	7487-94-7	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA	--	--	--	--	2.3E+01	8.8E+00	8.8E+00	DTSC	--	--	--	--	3.5E+02	9.2E+01	9.2E+01	DTSC
~Mercury (elemental)	7439-97-6	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA	--	--	--	--	9.6E+00	8.9E-01	8.9E-01	DTSC	--	--	--	--	4.0E+01	3.9E+00	3.9E+00	DTSC
Methyl Acetate	79-20-9	--	--	--	--	1.0E+00	Screening PPRTV	4.0E+03	Route	--	--	--	--	7.8E+04	2.4E+04	2.4E+04	DTSC	--	--	--	--	1.2E+06	1.3E+05	1.3E+05	DTSC
Methylene Chloride	75-09-2	1.4E-02	OEHHA	1.0E-06	OEHHA	6.0E-03	IRIS	4.0E+02	OEHHA	5.7E+01	1.9E+00	1.9E+00	DTSC	3.5E+02	3.1E+02	3.1E+02	DTSC	1.0E+03	2.4E+01	2.4E+01	DTSC	3.2E+03	2.5E+03	2.5E+03	DTSC
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.5E+00	OEHHA	4.3E-04	OEHHA	2.0E-03	PPRTV	--	--	1.2E+00	7.8E-02	7.8E-02	DTSC	1.3E+02	1.2E+02	1.2E+02	DTSC	2.3E+01	1.3E+00	1.3E+00	DTSC	1.6E+03	1.4E+03	1.4E+03	DTSC
Methylstyrene, Alpha-	98-83-9	--	--	--	--	7.0E-02	HEAST	2.8E+02	Route	--	--	--	--	5.5E+03	2.2E+03	2.2E+03	DTSC	--	--	--	--	8.2E+04	1.3E+04	1.3E+04	DTSC
Mineral oils	8012-95-1	--	--	--	--	3.0E+00	PPRTV	1.2E+04	Route	--	--	--	--	2.3E+05	1.6E+04	1.6E+04	DTSC	--	--	--	--	3.5E+06	7.2E+04	7.2E+04	DTSC
Nickel Soluble Salts	7440-02-0	--	RSL	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA	1.5E+04	1.5E+04	1.5E+04	USEPA	1.5E+03	4.9E+02	4.9E+02	DTSC	6.4E+04	6.4E+04	6.4E+04	USEPA	2.2E+04	4.3E+03	4.3E+03	DTSC
Pentachloroethane	76-01-7	9.0E-02	PPRTV	2.3E-05	Route	--	--	--	--	7.7E+00	1.1E+00	1.1E+00	DTSC	--	--	--	--	3.6E+01	4.6E+00	4.6E+00	DTSC	--	--	--	--
Phosphorus, White	7723-14-0	--	--	--	--	2.0E-05	IRIS	8.0E-02	Route	--	--	--	--	1.6E+00	4.3E-01	4.3E-01	DTSC	--	--	--	--	2.3E+01	2.2E+00	2.2E+00	DTSC
Phthalates																									
~Dimethylterephthalate	120-61-6	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	7.8E+03	4.2E+03	4.2E+03	DTSC	--	--	--	--	1.2E+05	2.9E+04	2.9E+04	DTSC
Polynuclear Aromatic Hydrocarbons (PAHs)																									
~Benzo[k]fluoranthene	207-08-9	1.2E+00	OEHHA	1.1E-04	OEHHA	--	--	--	--	1.6E+00	8.8E-02	8.8E-02	DTSC	--	--	--	--	2.9E+01	1.3E+00	1.3E+00	DTSC	--	--	--	--
~Chrysene	218-01-9	1.2E-01	OEHHA	1.1E-05	OEHHA	--	--	--	--	1.6E+01	8.8E-01	8.8E-01	DTSC	--	--	--	--	2.9E+02	1.3E+01	1.3E+01	DTSC	--	--	--	--
Tetrachloroethane, 1,1,1,2-	630-20-6	2.6E-02	IRIS	7.4E-06	IRIS	3.0E-02	IRIS	1.2E+02	Route	2.0E+00	2.0E+00	2.0E+00	USEPA	2.3E+03	5.5E+02	5.5E+02	DTSC	8.9E+00	8.9E+00	8.9E+00	USEPA	3.5E+04	2.8E+03	2.8E+03	DTSC
Tetrachloroethane, 1,1,2,2-	79-34-5	2.7E-01	OEHHA	5.8E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	6.1E-01	5.8E-01	5.8E-01	DTSC	1.6E+03	7.0E+02	7.0E+02	DTSC	2.7E+00	2.6E+00	2.6E+00	DTSC	2.3E+04	4.4E+03	4.4E+03	DTSC
Tetrachloroethylene	127-18-4	5.4E-01	OEHHA PHG	5.9E-06	OEHHA	6.0E-03	IRIS	3.5E+01	OEHHA	2.4E+01	6.0E-01	6.0E-01	DTSC	8.2E+01	7.3E+01	7.3E+01	DTSC	1.0E+02	2.7E+00	2.7E+00	DTSC	3.9E+02	3.5E+02	3.5E+02	DTSC
Toluene	108-88-3	--	--	--	--	8.0E-02	IRIS	3.0E+02	OEHHA	--	--	--	--	4.9E+03	1.1E+03	1.1E+03	DTSC	--	--	--	--	4.7E+04	5.4E+03	5.4E+03	DTSC
Tri-n-butyltin	688-73-3	--	--	--	--	3.0E-04	PPRTV	1.2E+00	Route	--	--	--	--	2.3E+01	3.6E+00	3.6E+00	DTSC	--	--	--	--	3.5E+02	1.7E+01	1.7E+01	DTSC
Trichlorobenzene, 1,2,3-	87-61-6	--	--	--	--	8.0E-04	Screening PPRTV	3.2E+00	Route	--	--	--	--	6.3E+01	4.0E+01	4.0E+01	DTSC	--	--	--	--	9.3E+02	3.1E+02	3.1E+02	DTSC
Trichloroethane, 1,1,1-	71-55-6	--	--	--	--	2.0E+00	IRIS	1.0E+03	OEHHA	--	--	--	--	8.2E+03	1.7E+03	1.7E+03	DTSC	--	--	--	--	3.6E+04	7.3E+03	7.3E+03	DTSC
Trichlorophenol, 2,4,6-	88-06-2	7.0E-02	OEHHA	2.0E-05	OEHHA	1.0E-03	PPRTV	--	--	4.9E+01	7.5E+00	7.5E+00	DTSC	6.3E+01	6.1E+01	6.1E+01	DTSC	2.1E+02	2.7E+01	2.7E+01	DTSC	8.2E+02	6.8E+02	6.8E+02	DTSC
Trichloropropane, 1,1,2-	598-77-6	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route	--	--	--	--	3.9E+02	1.8E+02	1.8E+02	DTSC	--	--	--	--	5.8E+03	1.1E+03	1.1E+03	DTSC
Trichloropropane, 1,2,3-	96-18-4	3.0E+01	IRIS	7.5E-03	Route	4.0E-03	IRIS	3.0E-01	IRIS	5.1E-03	1.5E-03	1.5E-03	DTSC	4.9E+00	4.9E+00	4.9E+00	USEPA	1.1E-01	2.1E-02	2.1E-02	DTSC	2.1E+01	2.1E+01	2.1E+01	USEPA
Trimethylbenzene, 1,3,5-	108-67-8	--	--	--	--	1.0E-02	Screening PPRTV	4.0E+01	Route	--	--	--	--	7.8E+02	2.1E+02	2.1E+02	DTSC	--	--	--	--	1.2E+04	1.1E+03	1.1E+03	DTSC
Vanadium and Compounds	7440-62-2	--	--	--	--	5.0E-03	RSL	1.0E-01	ATSDR	--	--	--	--	3.9E+02	1.9E+02	1.9E+02	DTSC	--	--	--	--	5.8E+03	1.6E+03	1.6E+03	DTSC
Vinyl Chloride	75-01-4	2.7E-01	OEHHA	7.8E-05	OEHHA	3.0E-03	IRIS	1.0E+02	IRIS	5.9E-02	8.8E-03	8.8E-03	DTSC	7.0E+01	7.0E+01	7.0E+01	USEPA	1.7E+00	1.5E-01	1.5E-01	DTSC	3.8E+02	3.8E+02	3.8E+02	USEPA
Additional Analytes																									
Beryllium Sulfate	13510-49-1	--	--	8.6E-01	OEHHA	2.0E-04	OEHHA PHG	7.0E-03	OEHHA	1.6E+03	4.4E+00	4.4E+00	DTSC	1.6E+02	1.5E+01	1.5E+01	DTSC	6.9E+03	1.9E+01	1.9E+01	DTSC	2.3E+03	2.2E+02	2.2E+02	DTSC
Chloropropane, 2-	75-29-6	--	--	--	--	--	--	1.0E+02	DTSC J&E	--	--	--	--	--	1.3E+02	1.3E+02	DTSC	--	--	--	--	--	5.3E+02	5.3E+02	DTSC
Dichlorobenzene, 1,3-	541-73-1	--	--	--	--	3.0E-02	DTSC J&E	1.2E+02	Route	--	--	--	--	--	2.4E+02	2.4E+02	DTSC	--	--	--	--	--	1.1E+03	1.1E+03	DTSC
Methylcyclohexane	108-87-2	--	--	--	--	--	--	6.0E+03	Cyclohexane	--	--	--	--	--	5.5E+03	5.5E+03	DTSC	--	--	--	--	--	2.3E+04	2.3E+04	DTSC

Table A-2a. Screening Levels for Residential Soil: Comparison of USEPA RSL and DTSC-SL Values

	USEPA RSL for Residential Soil (mg/kg)								DTSC-SL for Residential Soil (mg/kg)							
	Cancer Endpoint				Noncancer Endpoint				Cancer Endpoint				Noncancer Endpoint			
Analyte	USEPA RSL_{ing}	USEPA RSL_{D}	USEPA RSL_{inh}	USEPA $RSL_{Combined}$	USEPA RSL_{ing}	USEPA RSL_{D}	USEPA RSL_{inh}	USEPA $RSL_{Combined}$	DTSC-SL_{ing}	DTSC-SL_{D}	DTSC-SL_{inh}	DTSC-$SL_{Combined}$	DTSC-SL_{ing}	DTSC-SL_{D}	DTSC-SL_{inh}	DTSC-$SL_{Combined}$
USEPA RSL Analytes																
Acrylamide	3.06E-01	1.19E+00	1.38E+04	2.44E-01	1.56E+02	6.59E+02	8.51E+06	1.26E+02	3.40E-02	1.12E-01	1.06E+03	2.61E-02	1.56E+02	5.39E+02	8.51E+06	1.21E+02
Acrylonitrile	1.29E+00	--	3.22E-01	2.57E-01	3.13E+03	--	1.63E+01	1.62E+01	6.95E-01	--	7.55E-02	6.81E-02	3.13E+03	--	4.06E+01	4.01E+01
Arsenic, Inorganic	7.72E-01	5.49E+00	8.88E+02	6.77E-01	3.91E+01	3.30E+02	2.13E+04	3.49E+01	7.32E-02	7.59E-01	1.16E+03	6.67E-02	2.74E-01	3.15E+00	2.13E+04	2.52E-01
Benzaldehyde	--	--	--	--	7.82E+03	--	--	7.82E+03	--	--	--	--	7.82E+03	--	9.51E+03	4.29E+03
Benzene	1.26E+01	--	1.29E+00	1.17E+00	3.13E+02	--	1.12E+02	8.26E+01	6.95E+00	--	3.47E-01	3.31E-01	3.13E+02	--	1.12E+01	1.08E+01
Benzenethiol	--	--	--	--	7.82E+01	--	--	7.82E+01	--	--	--	--	7.82E+01	--	8.21E+01	4.00E+01
Beryllium and compounds	--	--	1.59E+03	1.59E+03	1.56E+02	--	2.84E+04	1.56E+02	--	--	1.59E+03	1.59E+03	1.56E+01	5.39E+02	9.93E+03	1.52E+01
Bromodichloromethane	1.12E+01	--	3.05E-01	2.97E-01	1.56E+03	--	--	1.56E+03	5.35E+00	--	3.05E-01	2.89E-01	1.56E+03	--	3.35E+02	2.76E+02
Bromoform	8.80E+01	--	2.51E+01	1.95E+01	1.56E+03	--	--	1.56E+03	6.32E+01	--	2.51E+01	1.80E+01	1.56E+03	--	8.21E+02	5.38E+02
Butadiene, 1,3-	2.04E-01	--	8.18E-02	5.85E-02	--	--	1.82E+00	1.82E+00	1.16E+00	--	1.44E-02	1.43E-02	--	--	1.82E+00	1.82E+00
Butanol, N-	--	--	--	--	7.82E+03	--	--	7.82E+03	--	--	--	--	7.82E+03	--	1.27E+04	4.83E+03
Butylbenzene, n-	--	--	--	--	3.91E+03	--	--	3.91E+03	--	--	--	--	3.91E+03	--	1.72E+03	1.20E+03
Butylbenzene, sec-	--	--	--	--	7.82E+03	--	--	7.82E+03	--	--	--	--	7.82E+03	--	3.11E+03	2.22E+03
Butylbenzene, tert-	--	--	--	--	7.82E+03	--	--	7.82E+03	--	--	--	--	7.82E+03	--	3.12E+03	2.23E+03
Cadmium (Diet)	--	--	2.12E+03	2.12E+03	7.82E+01	8.24E+02	1.42E+04	7.11E+01	--	--	9.09E+02	9.09E+02	5.26E+00	1.24E+03	1.42E+04	5.23E+00
Carbon Tetrachloride	9.93E+00	--	7.07E-01	6.60E-01	3.13E+02	--	1.58E+02	1.05E+02	4.63E+00	--	1.01E-01	9.89E-02	3.13E+02	--	6.31E+01	5.25E+01
Chlordane	1.99E+00	1.77E+01	2.57E+01	1.67E+00	3.91E+01	4.12E+02	6.68E+02	3.39E+01	5.35E-01	3.33E+00	7.55E+00	4.34E-01	3.91E+01	2.70E+02	6.68E+02	3.25E+01
Chloro-2-methylaniline, 4-	6.95E+00	2.47E+01	4.96E+04	5.43E+00	2.35E+02	9.89E+02	--	1.90E+02	2.57E+00	8.01E+00	4.96E+04	1.95E+00	2.35E+02	8.09E+02	--	1.82E+02
Chloroacetaldehyde, 2-	2.57E+00	--	--	2.57E+00	--	--	--	--	2.57E+00	--	7.84E-01	6.01E-01	--	--	--	--
Chlorobutane, 1-	--	--	--	--	3.13E+03	--	--	3.13E+03	--	--	--	--	3.13E+03	--	2.97E+02	2.71E+02
Chlorotoluene, o-	--	--	--	--	1.56E+03	--	--	1.56E+03	--	--	--	--	1.56E+03	--	6.87E+02	4.77E+02
Chlorotoluene, p-	--	--	--	--	1.56E+03	--	--	1.56E+03	--	--	--	--	1.56E+03	--	6.17E+02	4.42E+02
Chromium(III), Insoluble Salts	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	5.26E+04	--	3.63E+04
Crotonaldehyde, trans-	3.66E-01	--	--	3.66E-01	7.82E+01	--	--	7.82E+01	3.66E-01	--	1.13E-01	8.65E-02	7.82E+01	--	8.00E+01	3.95E+01
Cyanides																
~Cyanogen	--	--	--	--	7.82E+01	--	--	7.82E+01	--	--	--	--	7.82E+01	--	4.05E+01	2.67E+01
~Cyanogen Bromide	--	--	--	--	7.04E+03	--	--	7.04E+03	--	--	--	--	7.04E+03	--	1.93E+03	1.52E+03
~Cyanogen Chloride	--	--	--	--	3.91E+03	--	--	3.91E+03	--	--	--	--	3.91E+03	--	3.42E+03	1.82E+03
Dibromobenzene, 1,3-	--	--	--	--	3.13E+01	--	--	3.13E+01	--	--	--	--	3.13E+01	1.08E+02	3.27E+01	1.39E+01
Dibromobenzene, 1,4-	--	--	--	--	7.82E+02	--	--	7.82E+02	--	--	--	--	7.82E+02	--	9.31E+02	4.25E+02
Dibromochloromethane	8.28E+00	--	8.38E-01	7.61E-01	1.56E+03	--	--	1.56E+03	7.40E+00	--	8.38E-01	7.53E-01	1.56E+03	--	6.72E+02	4.70E+02
Dibromoethane, 1,2-	3.48E-01	--	4.10E-02	3.67E-02	7.04E+02	--	8.23E+01	7.37E+01	1.93E-01	--	3.47E-01	1.24E-01	7.04E+02	--	7.31E+00	7.24E+00
Dichlorobenzidine, 3,3'-	1.54E+00	5.49E+00	1.12E+04	1.21E+00	--	--	--	--	5.79E-01	1.80E+00	1.12E+04	4.38E-01	--	--	--	--
Dichloroethane, 1,1-	1.22E+02	--	3.71E+00	3.60E+00	1.56E+04	--	--	1.56E+04	1.22E+02	--	3.71E+00	3.60E+00	1.56E+04	--	1.76E+03	1.58E+03
Dichloroethylene, 1,2-cis-	--	--	--	--	1.56E+02	--	--	1.56E+02	--	--	--	--	1.56E+02	--	2.11E+01	1.86E+01
Dichloroethylene, 1,2-trans-	--	--	--	--	1.56E+03	--	--	1.56E+03	--	--	--	--	1.56E+03	--	1.47E+02	1.35E+02
Dichloropropane, 1,3-	--	--	--	--	1.56E+03	--	--	1.56E+03	--	--	--	--	1.56E+03	--	5.72E+02	4.19E+02
Dichloropropene, 1,3-	6.95E+00	--	2.53E+00	1.85E+00	2.35E+03	--	7.52E+01	7.28E+01	7.64E+00	--	6.32E-01	5.84E-01	2.35E+03	--	7.52E+01	7.28E+01
Dimethylaniline, N,N-	--	--	--	--	1.56E+02	--	--	1.56E+02	--	--	--	--	1.56E+02	--	2.64E+02	9.83E+01
Epichlorohydrin	7.02E+01	--	4.48E+01	2.74E+01	4.69E+02	--	2.00E+01	1.92E+01	8.69E+00	--	2.34E+00	1.84E+00	4.69E+02	--	5.99E+01	5.31E+01
Ethyl Acrylate	1.45E+01	--	--	1.45E+01	3.91E+02	--	5.36E+01	4.72E+01	1.45E+01	--	1.50E+00	1.36E+00	3.91E+02	--	5.36E+01	4.72E+01
Ethyl Chloride (Chloroethane)	--	--	--	--	--	--	1.37E+04	1.37E+04	1.48E+02	--	3.13E+00	3.07E+00	--	--	4.10E+04	4.10E+04
Ethyl Ether	--	--	--	--	1.56E+04	--	--	1.56E+04	--	--	--	--	1.56E+04	--	2.64E+03	2.26E+03
Furans																
~Furan	--	--	--	--	7.82E+01	1.10E+03	--	7.30E+01	--	--	--	--	7.82E+01	8.99E+02	1.11E+01	9.59E+00
Hexachlorobutadiene	8.91E+00	--	1.40E+00	1.21E+00	7.82E+01	--	--	7.82E+01	8.91E+00	--	1.40E+00	1.21E+00	7.82E+01	--	4.56E+01	2.88E+01
Isobutyl Alcohol	--	--	--	--	2.35E+04	--	--	2.35E+04	--	--	--	--	2.35E+04	--	3.57E+04	1.42E+04
Lead Compounds																
~Lead subacetate	8.18E+01	2.91E+02	3.18E+05	6.38E+01	--	--	--	--	1.83E+01	5.69E+01	3.47E+05	1.38E+01	--	--	--	--
~Tetraethyl Lead	--	--	--	--	7.82E-03	--	--	7.82E-03	--	--	--	--	7.82E-03	--	8.06E-04	7.31E-04
Mercury Compounds																
~Mercuric Chloride (and other Mercury salts)	--	--	--	--	2.35E+01	--	4.25E+05	2.35E+01	--	--	--	--	1.25E+01	3.02E+01	4.25E+04	8.85E+00
~Mercury (elemental)	--	--	--	--	--	--	9.56E+00	9.56E+00	--	--	--	--	1.25E+01	4.32E+02	9.56E-01	8.87E-01
Methyl Acetate	--	--	--	--	7.82E+04	--	--	7.82E+04	--	--	--	--	7.82E+04	--	3.43E+04	2.39E+04
Methylene Chloride	7.66E+01	--	2.25E+02	5.71E+01	4.69E+02	--	1.39E+03	3.51E+02	1.09E+01	--	2.25E+00	1.87E+00	4.69E+02	--	9.27E+02	3.12E+02
Methylene-bis(2-chloroaniline), 4,4'-	1.53E+00	5.97E+00	3.21E+03	1.22E+00	1.56E+02	6.59E+02	--	1.26E+02	1.02E-01	3.36E-01	3.21E+03	7.83E-02	1.56E+02	5.39E+02	--	1.21E+02
Methylstyrene, Alpha-	--	--	--	--	5.48E+03	--	--	5.48E+03	--	--	--	--	5.48E+03	--	3.79E+03	2.24E+03
Mineral oils	--	--	--	--	2.35E+05	--	--	2.35E+05	--	--	--	--	2.35E+05	--	1.74E+04	1.62E+04
Nickel Soluble Salts	--	--	1.47E+04	1.47E+04	1.56E+03	--	1.28E+05	1.55E+03	--	--	1.47E+04	1.47E+04	8.60E+02	1.19E+03	1.99E+04	4.87E+02
Pentachloroethane	7.72E+00	--	--	7.72E+00	--	--	--	--	7.72E+00	--	1.22E+00	1.05E+00	--	--	--	--
Phosphorus, White	--	--	--	--	1.56E+00	--	--	1.56E+00	--	--	--	--	1.56E+00	--	5.84E-01	4.25E-01
Phthalates																
~Dimethylterephthalate	--	--	--	--	7.82E+03	--	--	7.82E+03	--	--	--	--	7.82E+03	--	9.03E+03	4.19E+03
Polynuclear Aromatic Hydrocarbons (PAHs)																
~Benzo[k]fluoranthene	2.10E+00	6.29E+00	1.25E+04	1.57E+00	--	--	--	--	1.28E-01	2.80E-01	1.25E+04	8.77E-02	--	--	--	--
~Chrysene	2.10E+01	6.29E+01	1.25E+05	1.57E+01	--	--	--	--	1.28E+00	2.80E+00	1.25E+05	8.77E-01	--	--	--	--
Tetrachloroethane, 1,1,1,2-	2.67E+01	--	2.18E+00	2.02E+00	2.35E+03	--	--	2.35E+03	2.67E+01	--	2.18E+00	2.02E+00	2.35E+03	--	7.20E+02	5.51E+02
Tetrachloroethane, 1,1,2,2-	3.48E+00	--	7.42E-01	6.11E-01	1.56E+03	--	--	1.56E+03	2.57E+00	--	7.42E-01	5.76E-01	1.56E+03	--	1.28E+03	7.04E+02
Tetrachloroethylene	3.31E+02	--	2.57E+01	2.38E+01	4.69E+02	--	9.92E+01	8.19E+01	1.29E+00	--	1.13E+00	6.02E-01	4.69E+02	--	8.68E+01	7.33E+01
Toluene	--	--	--	--	6.26E+03	--	2.27E+04	4.90E+03	--	--	--	--	6.26E+03	--	1.36E+03	1.12E+03
Tri-n-butyltin	--	--	--	--	2.35E+01	--	--	2.35E+01	--	--	--	--	2.35E+01	--	4.26E+00	3.61E+00
Trichlorobenzene, 1,2,3-	--	--	--	--	6.26E+01	--	--	6.26E+01	--	--	--	--	6.26E+01	--	1.09E+02	3.98E+01
Trichloroethane, 1,1,1-	--	--	--	--	1.56E+05	--	8.70E+03	8.25E+03	--	--	--	--	1.56E+05	--	1.74E+03	1.72E+03
Trichlorophenol, 2,4,6-	6.32E+01	2.25E+02	1.23E+06	4.93E+01	7.82E+01	3.30E+02	--	6.32E+01	9.93E+00	3.09E+01	1.91E+05	7.52E+00	7.82E+01	2.70E+02	--	6.06E+01
Trichloropropane, 1,1,2-	--	--	--	--	3.91E+02	--	--	3.91E+02	--	--	--	--	3.91E+02	--	3.18E+02	1.75E+02
Trichloropropane, 1,2,3-	5.10E-03	--	--	5.10E-03	3.13E+02	--	4.98E+00	4.91E+00	5.10E-03	--	2.15E-03	1.51E-03	3.13E+02	--	4.98E+00	4.91E+00
Trimethylbenzene, 1,3,5-	--	--	--	--	7.82E+02	--	--	7.82E+02	--	--	--	--	7.82E+02	--	2.80E+02	2.06E+02
Vanadium and Compounds	--	--	--	--	3.94E+02	--	1.42E+05	3.93E+02	--	--	--	--	3.94E+02	3.53E+02	1.42E+05	1.86E+02
Vinyl Chloride	9.40E-02	--	1.62E-01	5.95E-02	2.35E+02	--	1.01E+02	7.05E+01	2.51E-01	--	9.13E-03	8.81E-03	2.35E+02	--	1.01E+02	7.05E+01
Additional Analytes																
Beryllium Sulfate	--	--	1.59E+03	1.59E+03	1.56E+02	--	2.84E+04	1.56E+02	--	--	4.44E+00	4.44E+00	1.56E+01	5.39E+02	9.93E+03	1.52E+01
Chloropropane, 2-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.26E+02	1.26E+02
Dichlorobenzene, 1,3-	--	--	--	--	--	--	--	--	--	--	--	--	2.35E+03	--	2.73E+02	2.44E+02
Methylcyclohexane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.54E+03	5.54E+03

Table A-2b. Screening Levels for Commercial/Industrial Soil: Comparison of USEPA RSL and DTSC-SL Values

	USEPA RSL for Commercial/Industrial Soil (mg/kg)								DTSC-SL for Commercial/Industrial Soil (mg/kg)							
	Cancer Endpoint				Noncancer Endpoint				Cancer Endpoint				Noncancer Endpoint			
Analyte	USEPA RSL_{ing}	USEPA RSL_{D}	USEPA RSL_{inh}	USEPA $RSL_{Combined}$	USEPA RSL_{ing}	USEPA RSL_{D}	USEPA RSL_{inh}	USEPA $RSL_{Combined}$	DTSC-SL_{ing}	DTSC-SL_{D}	DTSC-SL_{inh}	DTSC-$SL_{Combined}$	DTSC-SL_{ong}	DTSC-SL_{D}	DTSC-SL_{inh}	DTSC-$SL_{Combined}$
USEPA RSL Analytes																
Acrylamide	6.54E+00	1.55E+01	1.67E+05	4.60E+00	2.34E+03	5.52E+03	3.57E+07	1.64E+03	7.27E-01	1.00E+00	1.28E+04	4.22E-01	2.34E+03	3.23E+03	3.57E+07	1.36E+03
Acrylonitrile	6.06E+00	--	1.41E+00	1.14E+00	4.67E+04	--	6.83E+01	6.82E+01	3.27E+00	--	3.30E-01	2.99E-01	4.67E+04	--	1.71E+02	1.70E+02
Arsenic, Inorganic	3.63E+00	1.72E+01	3.88E+03	3.00E+00	5.84E+02	2.76E+03	8.93E+04	4.79E+02	3.44E-01	1.59E+00	5.05E+03	2.83E-01	4.09E+00	1.88E+01	8.94E+04	3.36E+00
Benzaldehyde	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	--	3.99E+04	2.98E+04
Benzene	5.95E+01	--	5.64E+00	5.15E+00	4.67E+03	--	4.71E+02	4.28E+02	3.27E+01	--	1.52E+00	1.45E+00	4.67E+03	--	4.71E+01	4.66E+01
Benzenethiol	--	--	--	--	1.17E+03	--	--	1.17E+03	--	--	--	--	1.17E+03	--	3.45E+02	2.66E+02
Beryllium and compounds	--	--	6.95E+03	6.95E+03	2.34E+03	--	1.19E+05	2.29E+03	--	--	6.95E+03	6.95E+03	2.34E+02	3.23E+03	4.17E+04	2.17E+02
Bromodichloromethane	5.27E+01	--	1.33E+00	1.30E+00	2.34E+04	--	--	2.34E+04	2.52E+01	--	1.33E+00	1.27E+00	2.34E+04	--	1.41E+03	1.33E+03
Bromoform	4.14E+02	--	1.10E+02	8.67E+01	2.34E+04	--	--	2.34E+04	2.97E+02	--	1.10E+02	8.01E+01	2.34E+04	--	3.45E+03	3.00E+03
Butadiene, 1,3-	9.62E-01	--	3.58E-01	2.61E-01	--	--	7.66E+00	7.66E+00	5.45E+00	--	6.31E-02	6.24E-02	--	--	7.66E+00	7.66E+00
Butanol, N-	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	--	5.32E+04	3.65E+04
Butylbenzene, n-	--	--	--	--	5.84E+04	--	--	5.84E+04	--	--	--	--	5.84E+04	--	7.23E+03	6.44E+03
Butylbenzene, sec-	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	--	1.31E+04	1.17E+04
Butylbenzene, tert-	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	--	1.31E+04	1.18E+04
Cadmium (Diet)	--	--	9.26E+03	9.26E+03	1.17E+03	6.90E+03	5.95E+04	9.82E+02	--	--	3.97E+03	3.97E+03	7.36E+00	1.02E+03	5.96E+04	7.30E+00
Carbon Tetrachloride	4.67E+01	--	3.09E+00	2.90E+00	4.67E+03	--	6.62E+02	5.80E+02	2.18E+01	--	4.41E-01	4.33E-01	4.67E+03	--	2.65E+02	2.51E+02
Chlordane	9.34E+00	5.52E+01	1.12E+02	7.46E+00	5.84E+02	3.45E+03	2.80E+03	4.24E+02	2.52E+00	6.95E+00	3.30E+01	1.75E+00	5.84E+02	1.61E+03	2.80E+03	3.72E+02
Chloro-2-methylaniline, 4-	3.27E+01	7.73E+01	2.17E+05	2.30E+01	3.50E+03	8.28E+03	--	2.46E+03	1.21E+01	1.67E+01	2.17E+05	7.03E+00	3.50E+03	4.84E+03	--	2.03E+03
Chloroacetaldehyde, 2-	1.21E+01	--	--	1.21E+01	--	--	--	--	1.21E+01	--	3.43E+00	2.67E+00	--	--	--	--
Chlorobutane, 1-	--	--	--	--	4.67E+04	--	--	4.67E+04	--	--	--	--	4.67E+04	--	1.25E+03	1.21E+03
Chlorotoluene, o-	--	--	--	--	2.34E+04	--	--	2.34E+04	--	--	--	--	2.34E+04	--	2.89E+03	2.57E+03
Chlorotoluene, p-	--	--	--	--	2.34E+04	--	--	2.34E+04	--	--	--	--	2.34E+04	--	2.59E+03	2.33E+03
Chromium(III), Insoluble Salts	--	--	--	--	1.75E+06	--	--	1.75E+06	--	--	--	--	1.75E+06	3.15E+05	--	2.67E+05
Crotonaldehyde, trans-	1.72E+00	--	--	1.72E+00	1.17E+03	--	--	1.17E+03	1.72E+00	--	4.95E-01	3.85E-01	1.17E+03	--	3.36E+02	2.61E+02
Cyanides																
~Cyanogen	--	--	--	--	1.17E+03	--	--	1.17E+03	--	--	--	--	1.17E+03	--	1.70E+02	1.49E+02
~Cyanogen Bromide	--	--	--	--	1.05E+05	--	--	1.05E+05	--	--	--	--	1.05E+05	--	8.12E+03	7.54E+03
~Cyanogen Chloride	--	--	--	--	5.84E+04	--	--	5.84E+04	--	--	--	--	5.84E+04	--	1.43E+04	1.15E+04
Dibromobenzene, 1,3-	--	--	--	--	4.67E+02	--	--	4.67E+02	--	--	--	--	4.67E+02	6.45E+02	1.37E+02	9.11E+01
Dibromobenzene, 1,4-	--	--	--	--	1.17E+04	--	--	1.17E+04	--	--	--	--	1.17E+04	--	3.91E+03	2.93E+03
Dibromochloromethane	3.89E+01	--	3.66E+00	3.35E+00	2.34E+04	--	--	2.34E+04	3.48E+01	--	3.66E+00	3.31E+00	2.34E+04	--	2.82E+03	2.52E+03
Dibromoethane, 1,2-	1.64E+00	--	1.79E-01	1.61E-01	1.05E+04	--	3.46E+02	3.35E+02	9.08E-01	--	1.51E+00	5.68E-01	1.05E+04	--	3.07E+01	3.06E+01
Dichlorobenzidine, 3,3'-	7.27E+00	1.72E+01	4.90E+04	5.11E+00	--	--	--	--	2.73E+00	3.77E+00	4.91E+04	1.58E+00	--	--	--	--
Dichloroethane, 1,1-	5.74E+02	--	1.62E+01	1.57E+01	2.34E+05	--	--	2.34E+05	5.74E+02	--	1.62E+01	1.57E+01	2.34E+05	--	7.40E+03	7.17E+03
Dichloroethylene, 1,2-cis-	--	--	--	--	2.34E+03	--	--	2.34E+03	--	--	--	--	2.34E+03	--	8.88E+01	8.55E+01
Dichloroethylene, 1,2-trans-	--	--	--	--	2.34E+04	--	--	2.34E+04	--	--	--	--	2.34E+04	--	6.19E+02	6.03E+02
Dichloropropane, 1,3-	--	--	--	--	2.34E+04	--	--	2.34E+04	--	--	--	--	2.34E+04	--	2.40E+03	2.18E+03
Dichloropropene, 1,3-	3.27E+01	--	1.11E+01	8.26E+00	3.50E+04	--	3.16E+02	3.13E+02	3.59E+01	--	2.76E+00	2.57E+00	3.50E+04	--	3.16E+02	3.13E+02
Dimethylaniline, N,N-	--	--	--	--	2.34E+03	--	--	2.34E+03	--	--	--	--	2.34E+03	--	1.11E+03	7.53E+02
Epichlorohydrin	3.30E+02	--	1.96E+02	1.23E+02	7.01E+03	--	8.39E+01	8.29E+01	4.09E+01	--	1.02E+01	8.17E+00	7.01E+03	--	2.52E+02	2.43E+02
Ethyl Acrylate	6.81E+01	--	--	6.81E+01	5.84E+03	--	2.25E+02	2.17E+02	6.81E+01	--	6.57E+00	5.99E+00	5.84E+03	--	2.25E+02	2.17E+02
Ethyl Chloride (Chloroethane)	--	--	--	--	--	--	5.74E+04	5.74E+04	6.96E+02	--	1.37E+01	1.34E+01	--	--	1.72E+05	1.72E+05
Ethyl Ether	--	--	--	--	2.34E+05	--	--	2.34E+05	--	--	--	--	2.34E+05	--	1.11E+04	1.06E+04
Furans																
~Furan	--	--	--	--	1.17E+03	9.20E+03	--	1.04E+03	--	--	--	--	1.17E+03	5.38E+03	4.65E+01	4.43E+01
Hexachlorobutadiene	4.19E+01	--	6.10E+00	5.32E+00	1.17E+03	--	--	1.17E+03	4.19E+01	--	6.10E+00	5.32E+00	1.17E+03	--	1.92E+02	1.65E+02
Isobutyl Alcohol	--	--	--	--	3.50E+05	--	--	3.50E+05	--	--	--	--	3.50E+05	--	1.50E+05	1.05E+05
Lead Compounds																
~Lead subacetate	3.85E+02	9.09E+02	1.39E+06	2.70E+02	--	--	--	--	8.61E+01	1.19E+02	1.52E+06	4.99E+01	--	--	--	--
~Tetraethyl Lead	--	--	--	--	1.17E-01	--	--	1.17E-01	--	--	--	--	1.17E-01	--	3.39E-03	3.29E-03
Mercury Compounds																
~Mercuric Chloride (and other Mercury salts)	--	--	--	--	3.50E+02	--	1.79E+06	3.50E+02	--	--	--	--	1.87E+02	1.81E+02	1.79E+05	9.18E+01
~Mercury (elemental)	--	--	--	--	--	--	4.02E+01	4.02E+01	--	--	--	--	1.87E+02	2.58E+03	4.02E+00	3.93E+00
Methyl Acetate	--	--	--	--	1.17E+06	--	--	1.17E+06	--	--	--	--	1.17E+06	--	1.44E+05	1.28E+05
Methylene Chloride	1.64E+03	--	2.72E+03	1.02E+03	7.01E+03	--	5.84E+03	3.18E+03	2.34E+02	--	2.72E+01	2.44E+01	7.01E+03	--	3.89E+03	2.50E+03
Methylene-bis(2-chloroaniline), 4,4'-	3.27E+01	7.73E+01	3.88E+04	2.30E+01	2.34E+03	5.52E+03	--	1.64E+03	2.18E+00	3.01E+00	3.88E+04	1.26E+00	2.34E+03	3.23E+03	--	1.36E+03
Methylstyrene, Alpha-	--	--	--	--	8.18E+04	--	--	8.18E+04	--	--	--	--	8.18E+04	--	1.59E+04	1.33E+04
Mineral oils	--	--	--	--	3.50E+06	--	--	3.50E+06	--	--	--	--	3.50E+06	--	7.32E+04	7.17E+04
Nickel Soluble Salts	--	--	6.41E+04	6.41E+04	2.34E+04	--	5.36E+05	2.24E+04	--	--	6.42E+04	6.42E+04	1.28E+04	7.10E+03	8.34E+04	4.34E+03
Pentachloroethane	3.63E+01	--	--	3.63E+01	--	--	--	--	3.63E+01	--	5.33E+00	4.65E+00	--	--	--	--
Phosphorus, White	--	--	--	--	2.34E+01	--	--	2.34E+01	--	--	--	--	2.34E+01	--	2.45E+00	2.22E+00
Phthalates																
~Dimethylterephthalate	--	--	--	--	1.17E+05	--	--	1.17E+05	--	--	--	--	1.17E+05	--	3.79E+04	2.86E+04
Polynuclear Aromatic Hydrocarbons (PAHs)																
~Benzo[k]fluoranthene	4.48E+01	8.14E+01	1.52E+05	2.89E+01	--	--	--	--	2.73E+00	2.51E+00	1.52E+05	1.31E+00	--	--	--	--
~Chrysene	4.48E+02	8.14E+02	1.52E+06	2.89E+02	--	--	--	--	2.73E+01	2.51E+01	1.52E+06	1.31E+01	--	--	--	--
Tetrachloroethane, 1,1,1,2-	1.26E+02	--	9.54E+00	8.87E+00	3.50E+04	--	--	3.50E+04	1.26E+02	--	9.54E+00	8.87E+00	3.50E+04	--	3.02E+03	2.78E+03
Tetrachloroethane, 1,1,2,2-	1.64E+01	--	3.24E+00	2.70E+00	2.34E+04	--	--	2.34E+04	1.21E+01	--	3.24E+00	2.56E+00	2.34E+04	--	5.37E+03	4.37E+03
Tetrachloroethylene	1.56E+03	--	1.12E+02	1.05E+02	7.01E+03	--	4.17E+02	3.93E+02	6.06E+00	--	4.94E+00	2.72E+00	7.01E+03	--	3.65E+02	3.47E+02
Toluene	--	--	--	--	9.34E+04	--	9.52E+04	4.72E+04	--	--	--	--	9.34E+04	--	5.71E+03	5.38E+03
Tri-n-butyltin	--	--	--	--	3.50E+02	--	--	3.50E+02	--	--	--	--	3.50E+02	--	1.79E+01	1.70E+01
Trichlorobenzene, 1,2,3-	--	--	--	--	9.34E+02	--	--	9.34E+02	--	--	--	--	9.34E+02	--	4.58E+02	3.07E+02
Trichloroethane, 1,1,1-	--	--	--	--	2.34E+06	--	3.66E+04	3.60E+04	--	--	--	--	2.34E+06	--	7.31E+03	7.29E+03
Trichlorophenol, 2,4,6-	2.97E+02	7.02E+02	5.38E+06	2.09E+02	1.17E+03	2.76E+03	--	8.21E+02	4.67E+01	6.45E+01	8.34E+05	2.71E+01	1.17E+03	1.61E+03	--	6.78E+02
Trichloropropane, 1,1,2-	--	--	--	--	5.84E+03	--	--	5.84E+03	--	--	--	--	5.84E+03	--	1.34E+03	1.09E+03
Trichloropropane, 1,2,3-	1.09E-01	--	--	1.09E-01	4.67E+03	--	2.09E+01	2.08E+01	1.09E-01	--	2.60E-02	2.10E-02	4.67E+03	--	2.09E+01	2.08E+01
Trimethylbenzene, 1,3,5-	--	--	--	--	1.17E+04	--	--	1.17E+04	--	--	--	--	1.17E+04	--	1.17E+03	1.07E+03
Vanadium and Compounds	--	--	--	--	5.89E+03	--	5.95E+05	5.83E+03	--	--	--	--	5.89E+03	2.11E+03	5.96E+05	1.55E+03
Vinyl Chloride	4.54E+00	--	2.69E+00	1.69E+00	3.50E+03	--	4.23E+02	3.78E+02	1.21E+01	--	1.52E-01	1.50E-01	3.50E+03	--	4.23E+02	3.78E+02
Additional Analytes																
Beryllium Sulfate	--	--	6.95E+03	6.95E+03	2.34E+03	--	1.19E+05	2.29E+03	--	--	1.94E+01	1.94E+01	2.34E+02	3.23E+03	4.17E+04	2.17E+02
Chloropropane, 2-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.31E+02	5.31E+02
Dichlorobenzene, 1,3-	--	--	--	--	--	--	--	--	--	--	--	--	3.50E+04	--	1.14E+03	1.11E+03
Methylcyclohexane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.33E+04	2.33E+04

Table A-3a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor, ingestion	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Soil Ingestion Rate (adult)	IRS_a	100	100	mg/day
Soil Ingestion Rate (child)	IRS_c	200	200	mg/day
Mutagenic adjustment factor, ingestion	MAF_O	0.202	0.202	dimensionless
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
(Regional) Screening Level, ingestion	$(R)SL_{Ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ day/year)}{SF_o \times EF_r \times \left(\frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) \times CF_o \times RBA}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ days/year)}{SF_o \times EF_r \times \left(\frac{ED_{0-2} \times IRS_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IRS_c \times ADAF_{2-6}}{BW_c} + \frac{ED_{6-16} \times IRS_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IRS_a \times ADAF_{16-26}}{BW_a}\right) \times CF_o \times RBA}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ days/year)}{SF_o \times EF_r \times CF_o \times RBA \times \left\{\left(CAF_o \times \frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) + \left[MAF_o \times \left(\frac{ED_{0-2} \times IRS_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IRS_c \times ADAF_{2-6}}{BW_c} + \frac{ED_{6-16} \times IRS_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IRS_a \times ADAF_{16-26}}{BW_a}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{SF_o \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) \times CF_o}{AT_c \times 365 \frac{days}{year}}\right) + \left(\frac{IRS_c \times CF_o}{BW_c}\right)\right] \times RBA}$$

Noncarcinogens:

$$(R)SL_{ing} = \frac{THQ \times \left(AT_{nc,c} \times 365 \frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRS_c \times CF_o \times RBA}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{ing-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365 \frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times IRS_a \times \frac{1}{RfD_o} \times CF_o \times RBA}$$

		Residential USEPA RSL_{ing}					Residential DTSC-SL_{ing}				
		RBA	**SF_o**	**Cancer**	**RfD_o**	**Noncancer**	**RBA**	**SF_o**	**Cancer**	**RfD_o**	**Noncancer**
Analyte	**Mutagen?**	*(dimensionless)*	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	*(dimensionless)*	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
USEPA RSL Analytes											
Acrylamide	M	1	5.00E-01	3.06E-01	2.00E-03	1.56E+02	1	4.50E+00	3.40E-02	2.00E-03	1.56E+02
Acrylonitrile		1	5.40E-01	1.29E+00	4.00E-02	3.13E+03	1	1.00E+00	6.95E-01	4.00E-02	3.13E+03
Arsenic, Inorganic		0.6	1.50E+00	7.72E-01	3.00E-04	3.91E+01	1	9.50E+00	7.32E-02	3.50E-06	2.74E-01
Benzaldehyde		1	No Toxicity Value	--	1.00E-01	7.82E+03	1	No Toxicity Value	--	1.00E-01	7.82E+03
Benzene		1	5.50E-02	1.26E+01	4.00E-03	3.13E+02	1	1.00E-01	6.95E+00	4.00E-03	3.13E+02
Benzenethiol		1	No Toxicity Value	--	1.00E-03	7.82E+01	1	No Toxicity Value	--	1.00E-03	7.82E+01
Beryllium and compounds		1	No Toxicity Value	--	2.00E-03	1.56E+02	1	No Toxicity Value	--	2.00E-04	1.56E+01
Bromodichloromethane		1	6.20E-02	1.12E+01	2.00E-02	1.56E+03	1	1.30E-01	5.35E+00	2.00E-02	1.56E+03
Bromoform		1	7.90E-03	8.80E+01	2.00E-02	1.56E+03	1	1.10E-02	6.32E+01	2.00E-02	1.56E+03
Butadiene, 1,3-		1	3.40E+00	2.04E-01	No Toxicity Value	--	1	6.00E-01	1.16E+00	No Toxicity Value	--
Butanol, N-		1	No Toxicity Value	--	1.00E-01	7.82E+03	1	No Toxicity Value	--	1.00E-01	7.82E+03
Butylbenzene, n-		1	No Toxicity Value	--	5.00E-02	3.91E+03	1	No Toxicity Value	--	5.00E-02	3.91E+03
Butylbenzene, sec-		1	No Toxicity Value	--	1.00E-01	7.82E+03	1	No Toxicity Value	--	1.00E-01	7.82E+03
Butylbenzene, tert-		1	No Toxicity Value	--	1.00E-01	7.82E+03	1	No Toxicity Value	--	1.00E-01	7.82E+03
Cadmium (Diet)		1	No Toxicity Value	--	1.00E-03	7.82E+01	1	No Toxicity Value	--	6.30E-06	5.26E+00
Carbon Tetrachloride		1	7.00E-02	9.93E+00	4.00E-03	3.13E+02	1	1.50E-01	4.63E+00	4.00E-03	3.13E+02
Chlordane		1	3.50E-01	1.99E+00	5.00E-04	3.91E+01	1	1.30E+00	5.35E-01	5.00E-04	3.91E+01
Chloro-2-methylaniline, 4-		1	1.00E-01	6.95E+00	3.00E-03	2.35E+02	1	2.70E-01	2.57E+00	3.00E-03	2.35E+02
Chloroacetaldehyde, 2-		1	2.70E-01	2.57E+00	No Toxicity Value	--	1	2.70E-01	2.57E+00	No Toxicity Value	--
Chlorobutane, 1-		1	No Toxicity Value	--	4.00E-02	3.13E+03	1	No Toxicity Value	--	4.00E-02	3.13E+03
Chlorotoluene, o-		1	No Toxicity Value	--	2.00E-02	1.56E+03	1	No Toxicity Value	--	2.00E-02	1.56E+03
Chlorotoluene, p-		1	No Toxicity Value	--	2.00E-02	1.56E+03	1	No Toxicity Value	--	2.00E-02	1.56E+03
Chromium(III), Insoluble Salts		1	No Toxicity Value	--	1.50E+00	1.17E+05	1	No Toxicity Value	--	1.50E+00	1.17E+05
Crotonaldehyde, trans-		1	1.90E+00	3.66E-01	1.00E-03	7.82E+01	1	1.90E+00	3.66E-01	1.00E-03	7.82E+01
Cyanides							1		--		--
~Cyanogen		1	No Toxicity Value	--	1.00E-03	7.82E+01	1	No Toxicity Value	--	1.00E-03	7.82E+01
~Cyanogen Bromide		1	No Toxicity Value	--	9.00E-02	7.04E+03	1	No Toxicity Value	--	9.00E-02	7.04E+03
~Cyanogen Chloride		1	No Toxicity Value	--	5.00E-02	3.91E+03	1	No Toxicity Value	--	5.00E-02	3.91E+03

Table A-3a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor, ingestion	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Soil Ingestion Rate (adult)	IRS_a	100	100	mg/day
Soil Ingestion Rate (child)	IRS_c	200	200	mg/day
Mutagenic adjustment factor, ingestion	MAF_O	0.202	0.202	dimensionless
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
(Regional) Screening Level, ingestion	$(R)SL_{Ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing}=\frac{TR\times(AT_c\times 365\ day/year)}{SF_o\times EF_r\times\left(\frac{ED_c\times IRS_c}{BW_c}+\frac{ED_a\times IRS_a}{BW_a}\right)\times CF_o\times RBA}$$

Mutagens:

$$(R)SL_{ing}=\frac{TR\times(AT_c\times 365\ days/year)}{SF_o\times EF_r\times\left(\frac{ED_{0-2}\times IRS_c\times ADAF_{0-2}}{BW_c}+\frac{ED_{2-6}\times IRS_c\times ADAF_{2-6}}{BW_c}+\frac{ED_{6-16}\times IRS_a\times ADAF_{6-16}}{BW_a}+\frac{ED_{16-26}\times IRS_a\times ADAF_{16-26}}{BW_a}\right)\times CF_o\times RBA}$$

Trichloroethene:

$$(R)SL_{ing}=\frac{TR\times(AT_c\times 365\ days/year)}{SF_o\times EF_r\times CF_o\times RBA\times\left\{\left(CAF_o\times\frac{ED_c\times IRS_c}{BW_c}+\frac{ED_a\times IRS_a}{BW_a}\right)+\left[MAF_o\times\left(\frac{ED_{0-2}\times IRS_c\times ADAF_{0-2}}{BW_c}+\frac{ED_{2-6}\times IRS_c\times ADAF_{2-6}}{BW_c}+\frac{ED_{6-16}\times IRS_a\times ADAF_{6-16}}{BW_a}+\frac{ED_{16-26}\times IRS_a\times ADAF_{16-26}}{BW_a}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing}=\frac{TR}{SF_o\times\left[\left(\frac{EF_r\times\left(\frac{ED_c\times IRS_c}{BW_c}+\frac{ED_a\times IRS_a}{BW_a}\right)\times CF_o}{AT_c\times 365\frac{days}{year}}\right)+\left(\frac{IRS_c\times CF_o}{BW_c}\right)\right]\times RBA}$$

Noncarcinogens:

$$(R)SL_{ing}=\frac{THQ\times\left(AT_{nc,c}\times 365\frac{day}{year}\right)\times BW_c}{EF_r\times ED_c\times\frac{1}{RfD_o}\times IRS_c\times CF_o\times RBA}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{ing-adult,Cd}=\frac{THQ\times\left(AT_{nc,26-yr\ adult}\times 365\frac{day}{year}\right)\times BW_a}{EF_r\times ED_{26-yr\ adult}\times IRS_a\times\frac{1}{RfD_o}\times CF_o\times RBA}$$

		Residential USEPA RSL_{ing}					Residential DTSC-SL_{ing}				
		RBA	**SF_o**	**Cancer**	**RfD_o**	**Noncancer**	**RBA**	**SF_o**	**Cancer**	**RfD_o**	**Noncancer**
Analyte	**Mutagen?**	*(dimensionless)*	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	*(dimensionless)*	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
Dibromobenzene, 1,3-		1	No Toxicity Value	--	4.00E-04	3.13E+01	1	No Toxicity Value	--	4.00E-04	3.13E+01
Dibromobenzene, 1,4-		1	No Toxicity Value	--	1.00E-02	7.82E+02	1	No Toxicity Value	--	1.00E-02	7.82E+02
Dibromochloromethane		1	8.40E-02	8.28E+00	2.00E-02	1.56E+03	1	9.40E-02	7.40E+00	2.00E-02	1.56E+03
Dibromoethane, 1,2-		1	2.00E+00	3.48E-01	9.00E-03	7.04E+02	1	3.60E+00	1.93E-01	9.00E-03	7.04E+02
Dichlorobenzidine, 3,3'-		1	4.50E-01	1.54E+00	No Toxicity Value	--	1	1.20E+00	5.79E-01	No Toxicity Value	--
Dichloroethane, 1,1-		1	5.70E-03	1.22E+02	2.00E-01	1.56E+04	1	5.70E-03	1.22E+02	2.00E-01	1.56E+04
Dichloroethylene, 1,2-cis-		1	No Toxicity Value	--	2.00E-03	1.56E+02	1	No Toxicity Value	--	2.00E-03	1.56E+02
Dichloroethylene, 1,2-trans-		1	No Toxicity Value	--	2.00E-02	1.56E+03	1	No Toxicity Value	--	2.00E-02	1.56E+03
Dichloropropane, 1,3-		1	No Toxicity Value	--	2.00E-02	1.56E+03	1	No Toxicity Value	--	2.00E-02	1.56E+03
Dichloropropene, 1,3-		1	1.00E-01	6.95E+00	3.00E-02	2.35E+03	1	9.10E-02	7.64E+00	3.00E-02	2.35E+03
Dimethylaniline, N,N-		1	No Toxicity Value	--	2.00E-03	1.56E+02	1	No Toxicity Value	--	2.00E-03	1.56E+02
Epichlorohydrin		1	9.90E-03	7.02E+01	6.00E-03	4.69E+02	1	8.00E-02	8.69E+00	6.00E-03	4.69E+02
Ethyl Acrylate		1	4.80E-02	1.45E+01	5.00E-03	3.91E+02	1	4.80E-02	1.45E+01	5.00E-03	3.91E+02
Ethyl Chloride (Chloroethane)		1	No Toxicity Value	--	No Toxicity Value	--	1	4.70E-03	1.48E+02	No Toxicity Value	--
Ethyl Ether		1	No Toxicity Value	--	2.00E-01	1.56E+04	1	No Toxicity Value	--	2.00E-01	1.56E+04
Furans							1		--		--
~Furan		1	No Toxicity Value	--	1.00E-03	7.82E+01	1	No Toxicity Value	--	1.00E-03	7.82E+01
Hexachlorobutadiene		1	7.80E-02	8.91E+00	1.00E-03	7.82E+01	1	7.80E-02	8.91E+00	1.00E-03	7.82E+01
Isobutyl Alcohol		1	No Toxicity Value	--	3.00E-01	2.35E+04	1	No Toxicity Value	--	3.00E-01	2.35E+04
Lead Compounds							1		--		--
~Lead subacetate		1	8.50E-03	8.18E+01	No Toxicity Value	--	1	3.80E-02	1.83E+01	No Toxicity Value	--
~Tetraethyl Lead		1	No Toxicity Value	--	1.00E-07	7.82E-03	1	No Toxicity Value	--	1.00E-07	7.82E-03
Mercury Compounds							1		--		--
~Mercuric Chloride (and other Mercury salt		1	No Toxicity Value	--	3.00E-04	2.35E+01	1	No Toxicity Value	--	1.60E-04	1.25E+01
~Mercury (elemental)		1	No Toxicity Value	--	not a soil COPC	--	1	No Toxicity Value	--	1.60E-04	1.25E+01
Methyl Acetate		1	No Toxicity Value	--	1.00E+00	7.82E+04	1	No Toxicity Value	--	1.00E+00	7.82E+04
Methylene Chloride	M	1	2.00E-03	7.66E+01	6.00E-03	4.69E+02	1	1.40E-02	1.09E+01	6.00E-03	4.69E+02
Methylene-bis(2-chloroaniline), 4,4'-	M	1	1.00E-01	1.53E+00	2.00E-03	1.56E+02	1	1.50E+00	1.02E-01	2.00E-03	1.56E+02
Methylstyrene, Alpha-		1	No Toxicity Value	--	7.00E-02	5.48E+03	1	No Toxicity Value	--	7.00E-02	5.48E+03

Table A-3a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor, ingestion	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Soil Ingestion Rate (adult)	IRS_a	100	100	mg/day
Soil Ingestion Rate (child)	IRS_c	200	200	mg/day
Mutagenic adjustment factor, ingestion	MAF_O	0.202	0.202	dimensionless
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
(Regional) Screening Level, ingestion	$(R)SL_{Ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ day/year)}{SF_o \times EF_r \times \left(\frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) \times CF_o \times RBA}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ days/year)}{SF_o \times EF_r \times \left(\frac{ED_{0-2} \times IRS_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IRS_c \times ADAF_{2-6}}{BW_c} + \frac{ED_{6-16} \times IRS_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IRS_a \times ADAF_{16-26}}{BW_a}\right) \times CF_o \times RBA}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times (AT_c \times 365\ days/year)}{SF_o \times EF_r \times CF_o \times RBA \times \left\{\left(CAF_o \times \frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) + \left[MAF_o \times \left(\frac{ED_{0-2} \times IRS_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IRS_c \times ADAF_{2-6}}{BW_c} + \frac{ED_{6-16} \times IRS_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IRS_a \times ADAF_{16-26}}{BW_a}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{SF_o \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times IRS_c}{BW_c} + \frac{ED_a \times IRS_a}{BW_a}\right) \times CF_o}{AT_c \times 365 \frac{days}{year}}\right) + \left(\frac{IRS_c \times CF_o}{BW_c}\right)\right] \times RBA}$$

Noncarcinogens:

$$(R)SL_{ing} = \frac{THQ \times \left(AT_{nc,c} \times 365 \frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRS_c \times CF_o \times RBA}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{ing-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365 \frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times IRS_a \times \frac{1}{RfD_o} \times CF_o \times RBA}$$

		Residential USEPA RSL_{ing}					Residential DTSC-SL_{ing}				
Analyte	**Mutagen?**	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)
Mineral oils		1	No Toxicity Value	--	3.00E+00	2.35E+05	1	No Toxicity Value	--	3.00E+00	2.35E+05
Nickel Soluble Salts		1	No Toxicity Value	--	2.00E-02	1.56E+03	1	No Toxicity Value	--	1.10E-02	8.60E+02
Pentachloroethane		1	9.00E-02	7.72E+00	No Toxicity Value	--	1	9.00E-02	7.72E+00	No Toxicity Value	--
Phosphorus, White		1	No Toxicity Value	--	2.00E-05	1.56E+00	1	No Toxicity Value	--	2.00E-05	1.56E+00
Phthalates							1		--		--
~Dimethylterephthalate		1	No Toxicity Value	--	1.00E-01	7.82E+03	1	No Toxicity Value	--	1.00E-01	7.82E+03
Polynuclear Aromatic Hydrocarbons (PAHs)							1		--		--
~Benzo[k]fluoranthene	M	1	7.30E-02	2.10E+00	No Toxicity Value	--	1	1.20E+00	1.28E-01	No Toxicity Value	--
~Chrysene	M	1	7.30E-03	2.10E+01	No Toxicity Value	--	1	1.20E-01	1.28E+00	No Toxicity Value	--
Tetrachloroethane, 1,1,1,2-		1	2.60E-02	2.67E+01	3.00E-02	2.35E+03	1	2.60E-02	2.67E+01	3.00E-02	2.35E+03
Tetrachloroethane, 1,1,2,2-		1	2.00E-01	3.48E+00	2.00E-02	1.56E+03	1	2.70E-01	2.57E+00	2.00E-02	1.56E+03
Tetrachloroethylene		1	2.10E-03	3.31E+02	6.00E-03	4.69E+02	1	5.40E-01	1.29E+00	6.00E-03	4.69E+02
Toluene		1	No Toxicity Value	--	8.00E-02	6.26E+03	1	No Toxicity Value	--	8.00E-02	6.26E+03
Tri-n-butyltin		1	No Toxicity Value	--	3.00E-04	2.35E+01	1	No Toxicity Value	--	3.00E-04	2.35E+01
Trichlorobenzene, 1,2,3-		1	No Toxicity Value	--	8.00E-04	6.26E+01	1	No Toxicity Value	--	8.00E-04	6.26E+01
Trichloroethane, 1,1,1-		1	No Toxicity Value	--	2.00E+00	1.56E+05	1	No Toxicity Value	--	2.00E+00	1.56E+05
Trichlorophenol, 2,4,6-		1	1.10E-02	6.32E+01	1.00E-03	7.82E+01	1	7.00E-02	9.93E+00	1.00E-03	7.82E+01
Trichloropropane, 1,1,2-		1	No Toxicity Value	--	5.00E-03	3.91E+02	1	No Toxicity Value	--	5.00E-03	3.91E+02
Trichloropropane, 1,2,3-	M	1	3.00E+01	5.10E-03	4.00E-03	3.13E+02	1	3.00E+01	5.10E-03	4.00E-03	3.13E+02
Trimethylbenzene, 1,3,5-		1	No Toxicity Value	--	1.00E-02	7.82E+02	1	No Toxicity Value	--	1.00E-02	7.82E+02
Vanadium and Compounds		1	No Toxicity Value	--	5.04E-03	3.94E+02	1	No Toxicity Value	--	5.04E-03	3.94E+02
Vinyl Chloride	M (VC)	1	7.20E-01	9.40E-02	3.00E-03	2.35E+02	1	2.70E-01	2.51E-01	3.00E-03	2.35E+02
Additional Analytes											
Beryllium Sulfate		1	No Toxicity Value	--	2.00E-03	1.56E+02	1	No Toxicity Value	--	2.00E-04	1.56E+01
Chloropropane, 2-		1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	No Toxicity Value	--
Dichlorobenzene, 1,3-		1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	3.00E-02	2.35E+03
Methylcyclohexane		1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	No Toxicity Value	--

Table A-3b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,a}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Fraction Contaminated Soil Ingested, worker	FI_w	1.0	1.0	dimensionless
Soil Ingestion Rate, worker	IRS_w	100	100	mg/day
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times SF_O \times IRS_w \times CF_o \times RBA}$$

Noncarcinogens:

$$(R)SL_{ing} = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times \frac{1}{RfD_O} \times IRS_w \times CF_o \times RBA}$$

	Commercial/Industrial USEPA RSL_{ing}					Commercial/Industrial DTSC-SL_{ing}				
Analyte	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)
USEPA RSL Analytes										
Acrylamide	1	5.00E-01	6.54E+00	2.00E-03	2.34E+03	1	4.50E+00	7.27E-01	2.00E-03	2.34E+03
Acrylonitrile	1	5.40E-01	6.06E+00	4.00E-02	4.67E+04	1	1.00E+00	3.27E+00	4.00E-02	4.67E+04
Arsenic, Inorganic	0.6	1.50E+00	3.63E+00	3.00E-04	5.84E+02	1	9.50E+00	3.44E-01	3.50E-06	4.09E+00
Benzaldehyde	1	No Toxicity Value	--	1.00E-01	1.17E+05	1	No Toxicity Value	--	1.00E-01	1.17E+05
Benzene	1	5.50E-02	5.95E+01	4.00E-03	4.67E+03	1	1.00E-01	3.27E+01	4.00E-03	4.67E+03
Benzenethiol	1	No Toxicity Value	--	1.00E-03	1.17E+03	1	No Toxicity Value	--	1.00E-03	1.17E+03
Beryllium and compounds	1	No Toxicity Value	--	2.00E-03	2.34E+03	1	No Toxicity Value	--	2.00E-04	2.34E+02
Bromodichloromethane	1	6.20E-02	5.27E+01	2.00E-02	2.34E+04	1	1.30E-01	2.52E+01	2.00E-02	2.34E+04
Bromoform	1	7.90E-03	4.14E+02	2.00E-02	2.34E+04	1	1.10E-02	2.97E+02	2.00E-02	2.34E+04
Butadiene, 1,3-	1	3.40E+00	9.62E-01	No Toxicity Value	--	1	6.00E-01	5.45E+00	No Toxicity Value	--
Butanol, N-	1	No Toxicity Value	--	1.00E-01	1.17E+05	1	No Toxicity Value	--	1.00E-01	1.17E+05
Butylbenzene, n-	1	No Toxicity Value	--	5.00E-02	5.84E+04	1	No Toxicity Value	--	5.00E-02	5.84E+04
Butylbenzene, sec-	1	No Toxicity Value	--	1.00E-01	1.17E+05	1	No Toxicity Value	--	1.00E-01	1.17E+05
Butylbenzene, tert-	1	No Toxicity Value	--	1.00E-01	1.17E+05	1	No Toxicity Value	--	1.00E-01	1.17E+05
Cadmium (Diet)	1	No Toxicity Value	--	1.00E-03	1.17E+03	1	No Toxicity Value	--	6.30E-06	7.36E+00
Carbon Tetrachloride	1	7.00E-02	4.67E+01	4.00E-03	4.67E+03	1	1.50E-01	2.18E+01	4.00E-03	4.67E+03
Chlordane	1	3.50E-01	9.34E+00	5.00E-04	5.84E+02	1	1.30E+00	2.52E+00	5.00E-04	5.84E+02
Chloro-2-methylaniline, 4-	1	1.00E-01	3.27E+01	3.00E-03	3.50E+03	1	2.70E-01	1.21E+01	3.00E-03	3.50E+03
Chloroacetaldehyde, 2-	1	2.70E-01	1.21E+01	No Toxicity Value	--	1	2.70E-01	1.21E+01	No Toxicity Value	--
Chlorobutane, 1-	1	No Toxicity Value	--	4.00E-02	4.67E+04	1	No Toxicity Value	--	4.00E-02	4.67E+04
Chlorotoluene, o-	1	No Toxicity Value	--	2.00E-02	2.34E+04	1	No Toxicity Value	--	2.00E-02	2.34E+04
Chlorotoluene, p-	1	No Toxicity Value	--	2.00E-02	2.34E+04	1	No Toxicity Value	--	2.00E-02	2.34E+04
Chromium(III), Insoluble Salts	1	No Toxicity Value	--	1.50E+00	1.75E+06	1	No Toxicity Value	--	1.50E+00	1.75E+06
Crotonaldehyde, trans-	1	1.90E+00	1.72E+00	1.00E-03	1.17E+03	1	1.90E+00	1.72E+00	1.00E-03	1.17E+03
Cyanides										
~Cyanogen	1	No Toxicity Value	--	1.00E-03	1.17E+03	1	No Toxicity Value	--	1.00E-03	1.17E+03
~Cyanogen Bromide	1	No Toxicity Value	--	9.00E-02	1.05E+05	1	No Toxicity Value	--	9.00E-02	1.05E+05
~Cyanogen Chloride	1	No Toxicity Value	--	5.00E-02	5.84E+04	1	No Toxicity Value	--	5.00E-02	5.84E+04
Dibromobenzene, 1,3-	1	No Toxicity Value	--	4.00E-04	4.67E+02	1	No Toxicity Value	--	4.00E-04	4.67E+02
Dibromobenzene, 1,4-	1	No Toxicity Value	--	1.00E-02	1.17E+04	1	No Toxicity Value	--	1.00E-02	1.17E+04

Table A-3b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,a}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Fraction Contaminated Soil Ingested, worker	FI_w	1.0	1.0	dimensionless
Soil Ingestion Rate, worker	IRS_w	100	100	mg/day
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times SF_O \times IRS_w \times CF_o \times RBA}$$

Noncarcinogens:

$$(R)SL_{ing} = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times \frac{1}{RfD_O} \times IRS_w \times CF_o \times RBA}$$

	Commercial/Industrial USEPA RSL_{ing}					Commercial/Industrial DTSC-SL_{ing}				
Analyte	**RBA** (*dimensionless*)	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)	**RBA** (*dimensionless*)	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)
Dibromochloromethane	1	8.40E-02	3.89E+01	2.00E-02	2.34E+04	1	9.40E-02	3.48E+01	2.00E-02	2.34E+04
Dibromoethane, 1,2-	1	2.00E+00	1.64E+00	9.00E-03	1.05E+04	1	3.60E+00	9.08E-01	9.00E-03	1.05E+04
Dichlorobenzidine, 3,3'-	1	4.50E-01	7.27E+00	No Toxicity Value	--	1	1.20E+00	2.73E+00	No Toxicity Value	--
Dichloroethane, 1,1-	1	5.70E-03	5.74E+02	2.00E-01	2.34E+05	1	5.70E-03	5.74E+02	2.00E-01	2.34E+05
Dichloroethylene, 1,2-cis-	1	No Toxicity Value	--	2.00E-03	2.34E+03	1	No Toxicity Value	--	2.00E-03	2.34E+03
Dichloroethylene, 1,2-trans-	1	No Toxicity Value	--	2.00E-02	2.34E+04	1	No Toxicity Value	--	2.00E-02	2.34E+04
Dichloropropane, 1,3-	1	No Toxicity Value	--	2.00E-02	2.34E+04	1	No Toxicity Value	--	2.00E-02	2.34E+04
Dichloropropene, 1,3-	1	1.00E-01	3.27E+01	3.00E-02	3.50E+04	1	9.10E-02	3.59E+01	3.00E-02	3.50E+04
Dimethylaniline, N,N-	1	No Toxicity Value	--	2.00E-03	2.34E+03	1	No Toxicity Value	--	2.00E-03	2.34E+03
Epichlorohydrin	1	9.90E-03	3.30E+02	6.00E-03	7.01E+03	1	8.00E-02	4.09E+01	6.00E-03	7.01E+03
Ethyl Acrylate	1	4.80E-02	6.81E+01	5.00E-03	5.84E+03	1	4.80E-02	6.81E+01	5.00E-03	5.84E+03
Ethyl Chloride (Chloroethane)	1	No Toxicity Value	--	No Toxicity Value	--	1	4.70E-03	6.96E+02	No Toxicity Value	--
Ethyl Ether	1	No Toxicity Value	--	2.00E-01	2.34E+05	1	No Toxicity Value	--	2.00E-01	2.34E+05
Furans										
~Furan	1	No Toxicity Value	--	1.00E-03	1.17E+03	1	No Toxicity Value	--	1.00E-03	1.17E+03
Hexachlorobutadiene	1	7.80E-02	4.19E+01	1.00E-03	1.17E+03	1	7.80E-02	4.19E+01	1.00E-03	1.17E+03
Isobutyl Alcohol	1	No Toxicity Value	--	3.00E-01	3.50E+05	1	No Toxicity Value	--	3.00E-01	3.50E+05
Lead Compounds										
~Lead subacetate	1	8.50E-03	3.85E+02	No Toxicity Value	--	1	3.80E-02	8.61E+01	No Toxicity Value	--
~Tetraethyl Lead	1	No Toxicity Value	--	1.00E-07	1.17E-01	1	No Toxicity Value	--	1.00E-07	1.17E-01
Mercury Compounds										
~Mercuric Chloride (and other Mercury salts)	1	No Toxicity Value	--	3.00E-04	3.50E+02	1	No Toxicity Value	--	1.60E-04	1.87E+02
~Mercury (elemental)	1	No Toxicity Value	--	not a soil COPC	--	1	No Toxicity Value	--	1.60E-04	1.87E+02
Methyl Acetate	1	No Toxicity Value	--	1.00E+00	1.17E+06	1	No Toxicity Value	--	1.00E+00	1.17E+06
Methylene Chloride	1	2.00E-03	1.64E+03	6.00E-03	7.01E+03	1	1.40E-02	2.34E+02	6.00E-03	7.01E+03
Methylene-bis(2-chloroaniline), 4,4'-	1	1.00E-01	3.27E+01	2.00E-03	2.34E+03	1	1.50E+00	2.18E+00	2.00E-03	2.34E+03
Methylstyrene, Alpha-	1	No Toxicity Value	--	7.00E-02	8.18E+04	1	No Toxicity Value	--	7.00E-02	8.18E+04
Mineral oils	1	No Toxicity Value	--	3.00E+00	3.50E+06	1	No Toxicity Value	--	3.00E+00	3.50E+06
Nickel Soluble Salts	1	No Toxicity Value	--	2.00E-02	2.34E+04	1	No Toxicity Value	--	1.10E-02	1.28E+04
Pentachloroethane	1	9.00E-02	3.63E+01	No Toxicity Value	--	1	9.00E-02	3.63E+01	No Toxicity Value	--
Phosphorus, White	1	No Toxicity Value	--	2.00E-05	2.34E+01	1	No Toxicity Value	--	2.00E-05	2.34E+01

Table A-3b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Incidental Ingestion

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,a}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_o	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Fraction Contaminated Soil Ingested, worker	FI_w	1.0	1.0	dimensionless
Soil Ingestion Rate, worker	IRS_w	100	100	mg/day
Relative Bioavailability	RBA	chemical-specific		dimensionless
Oral Reference Dose	RfD_O	chemical-specific		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	derived herein		mg/kg
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times SF_O \times IRS_w \times CF_o \times RBA}$$

Noncarcinogens:

$$(R)SL_{ing} = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times \frac{1}{RfD_O} \times IRS_w \times CF_o \times RBA}$$

	Commercial/Industrial USEPA RSL_{ing}					Commercial/Industrial DTSC-SL_{ing}				
Analyte	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)	**RBA** *(dimensionless)*	**SF_o** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_o** (mg/kg-day)	**Noncancer** (mg/kg)
Phthalates										
~Dimethylterephthalate	1	No Toxicity Value	--	1.00E-01	1.17E+05	1	No Toxicity Value	--	1.00E-01	1.17E+05
Polynuclear Aromatic Hydrocarbons (PAHs)										
~Benzo[k]fluoranthene	1	7.30E-02	4.48E+01	No Toxicity Value	--	1	1.20E+00	2.73E+00	No Toxicity Value	--
~Chrysene	1	7.30E-03	4.48E+02	No Toxicity Value	--	1	1.20E-01	2.73E+01	No Toxicity Value	--
Tetrachloroethane, 1,1,1,2-	1	2.60E-02	1.26E+02	3.00E-02	3.50E+04	1	2.60E-02	1.26E+02	3.00E-02	3.50E+04
Tetrachloroethane, 1,1,2,2-	1	2.00E-01	1.64E+01	2.00E-02	2.34E+04	1	2.70E-01	1.21E+01	2.00E-02	2.34E+04
Tetrachloroethylene	1	2.10E-03	1.56E+03	6.00E-03	7.01E+03	1	5.40E-01	6.06E+00	6.00E-03	7.01E+03
Toluene	1	No Toxicity Value	--	8.00E-02	9.34E+04	1	No Toxicity Value	--	8.00E-02	9.34E+04
Tri-n-butyltin	1	No Toxicity Value	--	3.00E-04	3.50E+02	1	No Toxicity Value	--	3.00E-04	3.50E+02
Trichlorobenzene, 1,2,3-	1	No Toxicity Value	--	8.00E-04	9.34E+02	1	No Toxicity Value	--	8.00E-04	9.34E+02
Trichloroethane, 1,1,1-	1	No Toxicity Value	--	2.00E+00	2.34E+06	1	No Toxicity Value	--	2.00E+00	2.34E+06
Trichlorophenol, 2,4,6-	1	1.10E-02	2.97E+02	1.00E-03	1.17E+03	1	7.00E-02	4.67E+01	1.00E-03	1.17E+03
Trichloropropane, 1,1,2-	1	No Toxicity Value	--	5.00E-03	5.84E+03	1	No Toxicity Value	--	5.00E-03	5.84E+03
Trichloropropane, 1,2,3-	1	3.00E+01	1.09E-01	4.00E-03	4.67E+03	1	3.00E+01	1.09E-01	4.00E-03	4.67E+03
Trimethylbenzene, 1,3,5-	1	No Toxicity Value	--	1.00E-02	1.17E+04	1	No Toxicity Value	--	1.00E-02	1.17E+04
Vanadium and Compounds	1	No Toxicity Value	--	5.04E-03	5.89E+03	1	No Toxicity Value	--	5.04E-03	5.89E+03
Vinyl Chloride	1	7.20E-01	4.54E+00	3.00E-03	3.50E+03	1	2.70E-01	1.21E+01	3.00E-03	3.50E+03
Additional Analytes										
Beryllium Sulfate	1	No Toxicity Value	--	2.00E-03	2.34E+03	1	No Toxicity Value	--	2.00E-04	2.34E+02
Chloropropane, 2-	1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	No Toxicity Value	--
Dichlorobenzene, 1,3-	1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	3.00E-02	3.50E+04
Methylcyclohexane	1	No Toxicity Value	--	No Toxicity Value	--	1	No Toxicity Value	--	No Toxicity Value	--

Table A-4a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	Units
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Soil-to-Skin Adherence Fraction, adult	AF_a	0.07	0.07	mg/cm^2-day
Soil-to-Skin Adherence Fraction, child	AF_c	0.2	0.2	mg/cm^2-day
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
Fraction of EV in Contact with Soil, resident	EC_r	1	1	unitless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic adjustment factor	MAF_O	0.202	0.202	dimensionless
Refererenc Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, adult	SA_a	6032	6032	cm^2
Exposed Body Surface Area, child	SA_c	2373	2900	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ day/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}$$

Mutagens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right) \times ABS_d \times CF_d}$$

Trichloroethene:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EV_r \times EC_r \times ABS_d \times CF_d \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times EF_r \times SA_a \times AF_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times EF_r \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_D = \frac{TR}{SF_d \times EV_r \times EC_r \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}{AT_c \times 365\frac{days}{year}}\right) + \left(\frac{SA_c \times AF_c \times ABS_d \times CF_d}{BW_c}\right)\right]}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times \left(AT_{nc,c} \times 365\frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_c \times AF_c \times ABS_d \times CF_d}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{D-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365\frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_a \times AF_a \times ABS_d \times CF_d}$$

		Residential USEPA RSL_D						Residential DTSC-SL_D					
		ABS_d	GI Absorption	SF_d	Cancer	RfD_d	Noncancer	ABS_d	GI Absorption	SF_d	Cancer	RfD_d	Noncancer
Analyte	**Mutagen?**	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
USEPA RSL Analytes													
Acrylamide	M	1.00E-01	1.00E+00	5.00E-01	1.19E+00	2.00E-03	6.59E+02	1.00E-01	1.00E+00	4.50E+00	1.12E-01	2.00E-03	5.39E+02
Acrylonitrile		--	1.00E+00	5.40E-01	--	4.00E-02	--	--	1.00E+00	1.00E+00	--	4.00E-02	--
Arsenic, Inorganic		3.00E-02	1.00E+00	1.50E+00	5.49E+00	3.00E-04	3.30E+02	3.00E-02	1.00E+00	9.50E+00	7.59E-01	3.50E-06	3.15E+00
Benzaldehyde		--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Benzene		--	1.00E+00	5.50E-02	--	4.00E-03	--	--	1.00E+00	1.00E-01	--	4.00E-03	--
Benzenethiol		--	1.00E+00	--	--	1.00E-03	--	--	1.00E+00	--	--	1.00E-03	--
Beryllium and compounds		--	7.00E-03	--	--	1.40E-05	--	1.00E-02	1.00E+00	--	--	2.00E-04	5.39E+02
Bromodichloromethane		--	1.00E+00	6.20E-02	--	2.00E-02	--	--	1.00E+00	1.30E-01	--	2.00E-02	--
Bromoform		--	1.00E+00	7.90E-03	--	2.00E-02	--	--	1.00E+00	1.10E-02	--	2.00E-02	--
Butadiene, 1,3-		--	1.00E+00	3.40E+00	--	--	--	--	1.00E+00	6.00E-01	--	--	--
Butanol, N-		--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Butylbenzene, n-		--	1.00E+00	--	--	5.00E-02	--	--	1.00E+00	--	--	5.00E-02	--
Butylbenzene, sec-		--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Butylbenzene, tert-		--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Cadmium (Diet)		1.00E-03	2.50E-02	--	--	2.50E-05	8.24E+02	1.00E-03	1.00E+00	--	--	6.30E-06	1.24E+03
Carbon Tetrachloride		--	1.00E+00	7.00E-02	--	4.00E-03	--	--	1.00E+00	1.50E-01	--	4.00E-03	--
Chlordane		4.00E-02	1.00E+00	3.50E-01	1.77E+01	5.00E-04	4.12E+02	5.00E-02	1.00E+00	1.30E+00	3.33E+00	5.00E-04	2.70E+02
Chloro-2-methylaniline, 4-		1.00E-01	1.00E+00	1.00E-01	2.47E+01	3.00E-03	9.89E+02	1.00E-01	1.00E+00	2.70E-01	8.01E+00	3.00E-03	8.09E+02
Chloroacetaldehyde, 2-		--	1.00E+00	2.70E-01	--	--	--	--	1.00E+00	2.70E-01	--	--	--
Chlorobutane, 1-		--	1.00E+00	--	--	4.00E-02	--	--	1.00E+00	--	--	4.00E-02	--
Chlorotoluene, o-		--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Chlorotoluene, p-		--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Chromium(III), Insoluble Salts		--	1.30E-02	--	--	1.95E-02	--	1.00E-02	1.30E-02	--	--	1.95E-02	5.26E+04
Crotonaldehyde, trans-		--	1.00E+00	1.90E+00	--	1.00E-03	--	--	1.00E+00	1.90E+00	--	1.00E-03	--

Table A-4a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	Units
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Soil-to-Skin Adherence Fraction, adult	AF_a	0.07	0.07	mg/cm^2-day
Soil-to-Skin Adherence Fraction, child	AF_c	0.2	0.2	mg/cm^2-day
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
Fraction of EV in Contact with Soil, resident	EC_r	1	1	unitless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic adjustment factor	MAF_O	0.202	0.202	dimensionless
Refererenc Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, adult	SA_a	6032	6032	cm^2
Exposed Body Surface Area, child	SA_c	2373	2900	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ day/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}$$

Mutagens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\begin{array}{l} \frac{ED_{0-2} \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a} \end{array}\right) \times ABS_d \times CF_d}$$

Trichloroethene:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EV_r \times EC_r \times ABS_d \times CF_d \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times EF_r \times SA_a \times AF_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{l} \frac{ED_{0-2} \times EF_r \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times EF_r \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_D = \frac{TR}{SF_d \times EV_r \times EC_r \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}{AT_c \times 365 \frac{days}{year}}\right) + \left(\frac{SA_c \times AF_c \times ABS_d \times CF_d}{BW_c}\right)\right]}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times \left(AT_{nc,c} \times 365 \frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_c \times AF_c \times ABS_d \times CF_d}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{D-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365 \frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_a \times AF_a \times ABS_d \times CF_d}$$

		Residential USEPA RSL_D						Residential DTSC-SL_D					
Analyte	**Mutagen?**	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)
Cyanides													
~Cyanogen		--	1.00E+00	--	--	1.00E-03	--	--	1.00E+00	--	--	1.00E-03	--
~Cyanogen Bromide		--	1.00E+00	--	--	9.00E-02	--	--	1.00E+00	--	--	9.00E-02	--
~Cyanogen Chloride		--	1.00E+00	--	--	5.00E-02	--	--	1.00E+00	--	--	5.00E-02	--
Dibromobenzene, 1,3-		--	1.00E+00	--	--	4.00E-04	--	1.00E-01	1.00E+00	--	--	4.00E-04	1.08E+02
Dibromobenzene, 1,4-		--	1.00E+00	--	--	1.00E-02	--	--	1.00E+00	--	--	1.00E-02	--
Dibromochloromethane		--	1.00E+00	8.40E-02	--	2.00E-02	--	--	1.00E+00	9.40E-02	--	2.00E-02	--
Dibromoethane, 1,2-		--	1.00E+00	2.00E+00	--	9.00E-03	--	--	1.00E+00	3.60E+00	--	9.00E-03	--
Dichlorobenzidine, 3,3'-		1.00E-01	1.00E+00	4.50E-01	5.49E+00	--	--	1.00E-01	1.00E+00	1.20E+00	1.80E+00	--	--
Dichloroethane, 1,1-		--	1.00E+00	5.70E-03	--	2.00E-01	--	--	1.00E+00	5.70E-03	--	2.00E-01	--
Dichloroethylene, 1,2-cis-		--	1.00E+00	--	--	2.00E-03	--	--	1.00E+00	--	--	2.00E-03	--
Dichloroethylene, 1,2-trans-		--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Dichloropropane, 1,3-		--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Dichloropropene, 1,3-		--	1.00E+00	1.00E-01	--	3.00E-02	--	--	1.00E+00	9.10E-02	--	3.00E-02	--
Dimethylaniline, N,N-		--	1.00E+00	--	--	2.00E-03	--	--	1.00E+00	--	--	2.00E-03	--
Epichlorohydrin		--	1.00E+00	9.90E-03	--	6.00E-03	--	--	1.00E+00	8.00E-02	--	6.00E-03	--
Ethyl Acrylate		--	1.00E+00	4.80E-02	--	5.00E-03	--	--	1.00E+00	4.80E-02	--	5.00E-03	--
Ethyl Chloride (Chloroethane)		--	1.00E+00	--	--	--	--	--	1.00E+00	4.70E-03	--	--	--
Ethyl Ether		--	1.00E+00	--	--	2.00E-01	--	--	1.00E+00	--	--	2.00E-01	--
Furans													
~Furan		3.00E-02	1.00E+00	--	--	1.00E-03	1.10E+03	3.00E-02	1.00E+00	--	--	1.00E-03	8.99E+02
Hexachlorobutadiene		--	1.00E+00	7.80E-02	--	1.00E-03	--	--	1.00E+00	7.80E-02	--	1.00E-03	--
Isobutyl Alcohol		--	1.00E+00	--	--	3.00E-01	--	--	1.00E+00	--	--	3.00E-01	--

Table A-4a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	Units
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Soil-to-Skin Adherence Fraction, adult	AF_a	0.07	0.07	mg/cm^2-day
Soil-to-Skin Adherence Fraction, child	AF_c	0.2	0.2	mg/cm^2-day
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
Fraction of EV in Contact with Soil, resident	EC_r	1	1	unitless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic adjustment factor	MAF_O	0.202	0.202	dimensionless
Refererenc Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, adult	SA_a	6032	6032	cm^2
Exposed Body Surface Area, child	SA_c	2373	2900	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ day/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}$$

Mutagens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right) \times ABS_d \times CF_d}$$

Trichloroethene:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EV_r \times EC_r \times ABS_d \times CF_d \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times EF_r \times SA_a \times AF_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times EF_r \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_D = \frac{TR}{SF_d \times EV_r \times EC_r \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}{AT_c \times 365\frac{days}{year}}\right) + \left(\frac{SA_c \times AF_c \times ABS_d \times CF_d}{BW_c}\right)\right]}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times \left(AT_{nc,c} \times 365\frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_c \times AF_c \times ABS_d \times CF_d}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{D-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365\frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_a \times AF_a \times ABS_d \times CF_d}$$

		Residential USEPA RSL_D						Residential DTSC-SL_D					
Analyte	**Mutagen?**	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)
Lead Compounds													
~Lead subacetate		1.00E-01	1.00E+00	8.50E-03	2.91E+02	--	--	1.00E-01	1.00E+00	3.80E-02	5.69E+01	--	--
~Tetraethyl Lead		--	1.00E+00	--	--	1.00E-07	--	--	1.00E+00	--	--	1.00E-07	--
Mercury Compounds													
~Mercuric Chloride (and other Mercury salts)		--	7.00E-02	--	--	2.10E-05	--	1.00E-02	7.00E-02	--	--	1.12E-05	3.02E+01
~Mercury (elemental)		--	1.00E+00	--	--	--	--	1.00E-02	1.00E+00	--	--	1.60E-04	4.32E+02
Methyl Acetate		--	1.00E+00	--	--	1.00E+00	--	--	1.00E+00	--	--	1.00E+00	--
Methylene Chloride	M	--	1.00E+00	2.00E-03	--	6.00E-03	--	--	1.00E+00	1.40E-02	--	6.00E-03	--
Methylene-bis(2-chloroaniline), 4,4'-	M	1.00E-01	1.00E+00	1.00E-01	5.97E+00	2.00E-03	6.59E+02	1.00E-01	1.00E+00	1.50E+00	3.36E-01	2.00E-03	5.39E+02
Methylstyrene, Alpha-		--	1.00E+00	--	--	7.00E-02	--	--	1.00E+00	--	--	7.00E-02	--
Mineral oils		--	1.00E+00	--	--	3.00E+00	--	--	1.00E+00	--	--	3.00E+00	--
Nickel Soluble Salts		--	4.00E-02	--	--	8.00E-04	--	1.00E-02	4.00E-02	--	--	4.40E-04	1.19E+03
Pentachloroethane		--	1.00E+00	9.00E-02	--	--	--	--	1.00E+00	9.00E-02	--	--	--
Phosphorus, White		--	1.00E+00	--	--	2.00E-05	--	--	1.00E+00	--	--	2.00E-05	--
Phthalates													
~Dimethylterephthalate		--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Polynuclear Aromatic Hydrocarbons (PAHs)													
~Benzo[k]fluoranthene	M	1.30E-01	1.00E+00	7.30E-02	6.29E+00	--	--	1.50E-01	1.00E+00	1.20E+00	2.80E-01	--	--
~Chrysene	M	1.30E-01	1.00E+00	7.30E-03	6.29E+01	--	--	1.50E-01	1.00E+00	1.20E-01	2.80E+00	--	--
Tetrachloroethane, 1,1,1,2-		--	1.00E+00	2.60E-02	--	3.00E-02	--	--	1.00E+00	2.60E-02	--	3.00E-02	--
Tetrachloroethane, 1,1,2,2-		--	1.00E+00	2.00E-01	--	2.00E-02	--	--	1.00E+00	2.70E-01	--	2.00E-02	--
Tetrachloroethylene		--	1.00E+00	2.10E-03	--	6.00E-03	--	--	1.00E+00	5.40E-01	--	6.00E-03	--
Toluene		--	1.00E+00	--	--	8.00E-02	--	--	1.00E+00	--	--	8.00E-02	--
Tri-n-butyltin		--	1.00E+00	--	--	3.00E-04	--	--	1.00E+00	--	--	3.00E-04	--
Trichlorobenzene, 1,2,3-		--	1.00E+00	--	--	8.00E-04	--	--	1.00E+00	--	--	8.00E-04	--

Table A-4a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	Units
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	yrs
Soil-to-Skin Adherence Fraction, adult	AF_a	0.07	0.07	mg/cm^2-day
Soil-to-Skin Adherence Fraction, child	AF_c	0.2	0.2	mg/cm^2-day
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic adjustment factor	CAF_O	0.804	0.804	dimensionless
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
Fraction of EV in Contact with Soil, resident	EC_r	1	1	unitless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic adjustment factor	MAF_O	0.202	0.202	dimensionless
Refererenc Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, adult	SA_a	6032	6032	cm^2
Exposed Body Surface Area, child	SA_c	2373	2900	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ day/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}$$

Mutagens:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EF_r \times EV_r \times EC_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right) \times ABS_d \times CF_d}$$

Trichloroethene:

$$(R)SL_D = \frac{TR \times (AT_c \times 365\ days/year)}{SF_d \times EV_r \times EC_r \times ABS_d \times CF_d \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times EF_r \times SA_a \times AF_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times AF_c \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times AF_c \times SA_c \times ADAF_{2-6}}{BW_c} + \\ \frac{ED_{6-16} \times EF_r \times AF_a \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times AF_a \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_D = \frac{TR}{SF_d \times EV_r \times EC_r \times \left[\left(\frac{EF_r \times \left(\frac{ED_c \times SA_c \times AF_c}{BW_c} + \frac{ED_a \times SA_a \times AF_a}{BW_a}\right) \times ABS_d \times CF_d}{AT_c \times 365\frac{days}{year}}\right) + \left(\frac{SA_c \times AF_c \times ABS_d \times CF_d}{BW_c}\right)\right]}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times \left(AT_{nc,c} \times 365\frac{day}{year}\right) \times BW_c}{EF_r \times ED_c \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_c \times AF_c \times ABS_d \times CF_d}$$

DTSC Cadmium - noncarcinogenic:

$$SL_{D-adult,Cd} = \frac{THQ \times \left(AT_{nc,26-yr\ adult} \times 365\frac{day}{year}\right) \times BW_a}{EF_r \times ED_{26-yr\ adult} \times \frac{1}{RfD_d} \times EV_r \times EC_r \times SA_a \times AF_a \times ABS_d \times CF_d}$$

		Residential USEPA RSL_D						Residential DTSC-SL_D					
Analyte	**Mutagen?**	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)	**ABS_d** (unitless)	**GI Absorption** (unitless)	**SF_d** $(mg/kg\text{-}day)^{-1}$	**Cancer** (mg/kg)	**RfD_d** (mg/kg-day)	**Noncancer** (mg/kg)
Trichloroethane, 1,1,1-		--	1.00E+00	--	--	2.00E+00	--	--	1.00E+00	--	--	2.00E+00	--
Trichlorophenol, 2,4,6-		1.00E-01	1.00E+00	1.10E-02	2.25E+02	1.00E-03	3.30E+02	1.00E-01	1.00E+00	7.00E-02	3.09E+01	1.00E-03	2.70E+02
Trichloropropane, 1,1,2-		--	1.00E+00	--	--	5.00E-03	--	--	1.00E+00	--	--	5.00E-03	--
Trichloropropane, 1,2,3-	M	--	1.00E+00	3.00E+01	--	4.00E-03	--	--	1.00E+00	3.00E+01	--	4.00E-03	--
Trimethylbenzene, 1,3,5-		--	1.00E+00	--	--	1.00E-02	--	--	1.00E+00	--	--	1.00E-02	--
Vanadium and Compounds		--	2.60E-02	--	--	1.31E-04	--	1.00E-02	2.60E-02	--	--	1.31E-04	3.53E+02
Vinyl Chloride	M (VC)	--	1.00E+00	7.20E-01	--	3.00E-03	--	--	1.00E+00	2.70E-01	--	3.00E-03	--
Additional Analytes													
Beryllium Sulfate		--	7.00E-03	--	--	1.40E-05	--	1.00E-02	1.00E+00	--	--	2.00E-04	5.39E+02
Chloropropane, 2-		--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	--	--
Dichlorobenzene, 1,3-		--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	3.00E-02	--
Methylcyclohexane		--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	--	--

Table A-4b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Soil-to-Skin Adherence Fraction, worker	AF_w	0.12	0.12	mg/cm^2-day
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,w}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Fraction of EV in Contact with Soil, worker	EC_w	1	1	unitless
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Event Frequency, worker	EV_w	1	1	events/day
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, worker	SA_w	3527	6032	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times SF_D \times SA_w \times AF_w \times ABS_d \times CF_d}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times \frac{1}{RfD_D} \times SA_w \times AF_w \times ABS_d \times CF_d}$$

	Commercial/Industrial USEPA RSL_D						Commercial/Industrial DTSC-SL_D					
	ABS_d	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**	**ABS_d**	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**
Analyte	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
USEPA RSL Analytes												
Acrylamide	1.00E-01	1.00E+00	5.00E-01	1.55E+01	2.00E-03	5.52E+03	1.00E-01	1.00E+00	4.50E+00	1.00E+00	2.00E-03	3.23E+03
Acrylonitrile	--	1.00E+00	5.40E-01	--	4.00E-02	--	--	1.00E+00	1.00E+00	--	4.00E-02	--
Arsenic, Inorganic	3.00E-02	1.00E+00	1.50E+00	1.72E+01	3.00E-04	2.76E+03	3.00E-02	1.00E+00	9.50E+00	1.59E+00	3.50E-06	1.88E+01
Benzaldehyde	--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Benzene	--	1.00E+00	5.50E-02	--	4.00E-03	--	--	1.00E+00	1.00E-01	--	4.00E-03	--
Benzenethiol	--	1.00E+00	--	--	1.00E-03	--	--	1.00E+00	--	--	1.00E-03	--
Beryllium and compounds	--	7.00E-03	--	--	1.40E-05	--	1.00E-02	1.00E+00	--	--	2.00E-04	3.23E+03
Bromodichloromethane	--	1.00E+00	6.20E-02	--	2.00E-02	--	--	1.00E+00	1.30E-01	--	2.00E-02	--
Bromoform	--	1.00E+00	7.90E-03	--	2.00E-02	--	--	1.00E+00	1.10E-02	--	2.00E-02	--
Butadiene, 1,3-	--	1.00E+00	3.40E+00	--	--	--	--	1.00E+00	6.00E-01	--	--	--
Butanol, N-	--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Butylbenzene, n-	--	1.00E+00	--	--	5.00E-02	--	--	1.00E+00	--	--	5.00E-02	--
Butylbenzene, sec-	--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Butylbenzene, tert-	--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Cadmium (Diet)	1.00E-03	2.50E-02	--	--	2.50E-05	6.90E+03	1.00E-03	1.00E+00	--	--	6.30E-06	1.02E+03
Carbon Tetrachloride	--	1.00E+00	7.00E-02	--	4.00E-03	--	--	1.00E+00	1.50E-01	--	4.00E-03	--
Chlordane	4.00E-02	1.00E+00	3.50E-01	5.52E+01	5.00E-04	3.45E+03	5.00E-02	1.00E+00	1.30E+00	6.95E+00	5.00E-04	1.61E+03
Chloro-2-methylaniline, 4-	1.00E-01	1.00E+00	1.00E-01	7.73E+01	3.00E-03	8.28E+03	1.00E-01	1.00E+00	2.70E-01	1.67E+01	3.00E-03	4.84E+03
Chloroacetaldehyde, 2-	--	1.00E+00	2.70E-01	--	--	--	--	1.00E+00	2.70E-01	--	--	--
Chlorobutane, 1-	--	1.00E+00	--	--	4.00E-02	--	--	1.00E+00	--	--	4.00E-02	--
Chlorotoluene, o-	--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Chlorotoluene, p-	--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Chromium(III), Insoluble Salts	--	1.30E-02	--	--	1.95E-02	--	1.00E-02	1.30E-02	--	--	1.95E-02	3.15E+05
Crotonaldehyde, trans-	--	1.00E+00	1.90E+00	--	1.00E-03	--	--	1.00E+00	1.90E+00	--	1.00E-03	--

Table A-4b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Soil-to-Skin Adherence Fraction, worker	AF_w	0.12	0.12	mg/cm^2-day
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,w}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Fraction of EV in Contact with Soil, worker	EC_w	1	1	unitless
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Event Frequency, worker	EV_w	1	1	events/day
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, worker	SA_w	3527	6032	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times SF_D \times SA_w \times AF_w \times ABS_d \times CF_d}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times \frac{1}{RfD_D} \times SA_w \times AF_w \times ABS_d \times CF_d}$$

	Commercial/Industrial USEPA RSL_D						Commercial/Industrial DTSC-SL_D					
	ABS_d	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**	**ABS_d**	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**
Analyte	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
Cyanides												
~Cyanogen	--	1.00E+00	--	--	1.00E-03	--	--	1.00E+00	--	--	1.00E-03	--
~Cyanogen Bromide	--	1.00E+00	--	--	9.00E-02	--	--	1.00E+00	--	--	9.00E-02	--
~Cyanogen Chloride	--	1.00E+00	--	--	5.00E-02	--	--	1.00E+00	--	--	5.00E-02	--
Dibromobenzene, 1,3-	--	1.00E+00	--	--	4.00E-04	--	1.00E-01	1.00E+00	--	--	4.00E-04	6.45E+02
Dibromobenzene, 1,4-	--	1.00E+00	--	--	1.00E-02	--	--	1.00E+00	--	--	1.00E-02	--
Dibromochloromethane	--	1.00E+00	8.40E-02	--	2.00E-02	--	--	1.00E+00	9.40E-02	--	2.00E-02	--
Dibromoethane, 1,2-	--	1.00E+00	2.00E+00	--	9.00E-03	--	--	1.00E+00	3.60E+00	--	9.00E-03	--
Dichlorobenzidine, 3,3'-	1.00E-01	1.00E+00	4.50E-01	1.72E+01	--	--	1.00E-01	1.00E+00	1.20E+00	3.77E+00	--	--
Dichloroethane, 1,1-	--	1.00E+00	5.70E-03	--	2.00E-01	--	--	1.00E+00	5.70E-03	--	2.00E-01	--
Dichloroethylene, 1,2-cis-	--	1.00E+00	--	--	2.00E-03	--	--	1.00E+00	--	--	2.00E-03	--
Dichloroethylene, 1,2-trans-	--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Dichloropropane, 1,3-	--	1.00E+00	--	--	2.00E-02	--	--	1.00E+00	--	--	2.00E-02	--
Dichloropropene, 1,3-	--	1.00E+00	1.00E-01	--	3.00E-02	--	--	1.00E+00	9.10E-02	--	3.00E-02	--
Dimethylaniline, N,N-	--	1.00E+00	--	--	2.00E-03	--	--	1.00E+00	--	--	2.00E-03	--
Epichlorohydrin	--	1.00E+00	9.90E-03	--	6.00E-03	--	--	1.00E+00	8.00E-02	--	6.00E-03	--
Ethyl Acrylate	--	1.00E+00	4.80E-02	--	5.00E-03	--	--	1.00E+00	4.80E-02	--	5.00E-03	--
Ethyl Chloride (Chloroethane)	--	1.00E+00	--	--	--	--	--	1.00E+00	4.70E-03	--	--	--
Ethyl Ether	--	1.00E+00	--	--	2.00E-01	--	--	1.00E+00	--	--	2.00E-01	--
Furans												
~Furan	3.00E-02	1.00E+00	--	--	1.00E-03	9.20E+03	3.00E-02	1.00E+00	--	--	1.00E-03	5.38E+03
Hexachlorobutadiene	--	1.00E+00	7.80E-02	--	1.00E-03	--	--	1.00E+00	7.80E-02	--	1.00E-03	--
Isobutyl Alcohol	--	1.00E+00	--	--	3.00E-01	--	--	1.00E+00	--	--	3.00E-01	--
Lead Compounds												
~Lead subacetate	1.00E-01	1.00E+00	8.50E-03	9.09E+02	--	--	1.00E-01	1.00E+00	3.80E-02	1.19E+02	--	--
~Tetraethyl Lead	--	1.00E+00	--	--	1.00E-07	--	--	1.00E+00	--	--	1.00E-07	--

Table A-4b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Soil-to-Skin Adherence Fraction, worker	AF_w	0.12	0.12	mg/cm^2-day
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,w}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Fraction of EV in Contact with Soil, worker	EC_w	1	1	unitless
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Event Frequency, worker	EV_w	1	1	events/day
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, worker	SA_w	3527	6032	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times SF_D \times SA_w \times AF_w \times ABS_d \times CF_d}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times \frac{1}{RfD_D} \times SA_w \times AF_w \times ABS_d \times CF_d}$$

	Commercial/Industrial USEPA RSL_D						Commercial/Industrial DTSC-SL_D					
	ABS_d	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**	**ABS_d**	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**
Analyte	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
Mercury Compounds												
~Mercuric Chloride (and other Mercury salts)	--	7.00E-02	--	--	2.10E-05	--	1.00E-02	7.00E-02	--	--	1.12E-05	1.81E+02
~Mercury (elemental)	--	1.00E+00	--	--	--	--	1.00E-02	1.00E+00	--	--	1.60E-04	2.58E+03
Methyl Acetate	--	1.00E+00	--	--	1.00E+00	--	--	1.00E+00	--	--	1.00E+00	--
Methylene Chloride	--	1.00E+00	2.00E-03	--	6.00E-03	--	--	1.00E+00	1.40E-02	--	6.00E-03	--
Methylene-bis(2-chloroaniline), 4,4'-	1.00E-01	1.00E+00	1.00E-01	7.73E+01	2.00E-03	5.52E+03	1.00E-01	1.00E+00	1.50E+00	3.01E+00	2.00E-03	3.23E+03
Methylstyrene, Alpha-	--	1.00E+00	--	--	7.00E-02	--	--	1.00E+00	--	--	7.00E-02	--
Mineral oils	--	1.00E+00	--	--	3.00E+00	--	--	1.00E+00	--	--	3.00E+00	--
Nickel Soluble Salts	--	4.00E-02	--	--	8.00E-04	--	1.00E-02	4.00E-02	--	--	4.40E-04	7.10E+03
Pentachloroethane	--	1.00E+00	9.00E-02	--	--	--	--	1.00E+00	9.00E-02	--	--	--
Phosphorus, White	--	1.00E+00	--	--	2.00E-05	--	--	1.00E+00	--	--	2.00E-05	--
Phthalates												
~Dimethylterephthalate	--	1.00E+00	--	--	1.00E-01	--	--	1.00E+00	--	--	1.00E-01	--
Polynuclear Aromatic Hydrocarbons (PAHs)												
~Benzo[k]fluoranthene	1.30E-01	1.00E+00	7.30E-02	8.14E+01	--	--	1.50E-01	1.00E+00	1.20E+00	2.51E+00	--	--
~Chrysene	1.30E-01	1.00E+00	7.30E-03	8.14E+02	--	--	1.50E-01	1.00E+00	1.20E-01	2.51E+01	--	--
Tetrachloroethane, 1,1,1,2-	--	1.00E+00	2.60E-02	--	3.00E-02	--	--	1.00E+00	2.60E-02	--	3.00E-02	--
Tetrachloroethane, 1,1,2,2-	--	1.00E+00	2.00E-01	--	2.00E-02	--	--	1.00E+00	2.70E-01	--	2.00E-02	--
Tetrachloroethylene	--	1.00E+00	2.10E-03	--	6.00E-03	--	--	1.00E+00	5.40E-01	--	6.00E-03	--
Toluene	--	1.00E+00	--	--	8.00E-02	--	--	1.00E+00	--	--	8.00E-02	--
Tri-n-butyltin	--	1.00E+00	--	--	3.00E-04	--	--	1.00E+00	--	--	3.00E-04	--
Trichlorobenzene, 1,2,3-	--	1.00E+00	--	--	8.00E-04	--	--	1.00E+00	--	--	8.00E-04	--
Trichloroethane, 1,1,1-	--	1.00E+00	--	--	2.00E+00	--	--	1.00E+00	--	--	2.00E+00	--
Trichlorophenol, 2,4,6-	1.00E-01	1.00E+00	1.10E-02	7.02E+02	1.00E-03	2.76E+03	1.00E-01	1.00E+00	7.00E-02	6.45E+01	1.00E-03	1.61E+03
Trichloropropane, 1,1,2-	--	1.00E+00	--	--	5.00E-03	--	--	1.00E+00	--	--	5.00E-03	--
Trichloropropane, 1,2,3-	--	1.00E+00	3.00E+01	--	4.00E-03	--	--	1.00E+00	3.00E+01	--	4.00E-03	--

Table A-4b. USEPA RSLs and DTSC-SLs for a Commercial/Industrial Receptor Exposed to Soil via Dermal Contact

Description	Variable	USEPA Value	DTSC Value	
Dermal Soil Absorption Fraction	ABS_d	chemical-specific		unitless
Soil-to-Skin Adherence Fraction, worker	AF_w	0.12	0.12	mg/cm^2-day
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, adult	$AT_{nc,w}$	25	25	yrs
Body Weight, adult	BW_a	80	80	kg
Conversion Factor	CF_d	1E-06	1E-06	kg/mg
COPC Concentration in Soil	C_{soil}	chemical-specific		mg/kg
Fraction of EV in Contact with Soil, worker	EC_w	1	1	unitless
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Event Frequency, worker	EV_w	1	1	events/day
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		mg/kg-day
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		mg/kg
Exposed Body Surface Area, worker	SA_w	3527	6032	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_d	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations:

Carcinogens:

$$(R)SL_D = \frac{TR \times AT_c \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times SF_D \times SA_w \times AF_w \times ABS_d \times CF_d}$$

Noncarcinogens:

$$(R)SL_D = \frac{THQ \times AT_{nc,w} \times 365\frac{days}{year} \times BW_a}{EF_w \times ED_w \times EV_r \times EC_r \times \frac{1}{RfD_D} \times SA_w \times AF_w \times ABS_d \times CF_d}$$

	Commercial/Industrial USEPA RSL_D						Commercial/Industrial DTSC-SL_D					
	ABS_d	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**	**ABS_d**	**GI Absorption**	**SF_d**	**Cancer**	**RfD_d**	**Noncancer**
Analyte	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)	(unitless)	(unitless)	$(mg/kg\text{-}day)^{-1}$	(mg/kg)	(mg/kg-day)	(mg/kg)
Trimethylbenzene, 1,3,5-	--	1.00E+00	--	--	1.00E-02	--	--	1.00E+00	--	--	1.00E-02	--
Vanadium and Compounds	--	2.60E-02	--	--	1.31E-04	--	1.00E-02	2.60E-02	--	--	1.31E-04	2.11E+03
Vinyl Chloride	--	1.00E+00	7.20E-01	--	3.00E-03	--	--	1.00E+00	2.70E-01	--	3.00E-03	--
Additional Analytes												
Beryllium Sulfate	--	7.00E-03	--	--	1.40E-05	--	1.00E-02	1.00E+00	--	--	2.00E-04	3.23E+03
Chloropropane, 2-	--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	--	--
Dichlorobenzene, 1,3-	--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	3.00E-02	--
Methylcyclohexane	--	1.00E+00	--	--	--	--	--	1.00E+00	--	--	--	--

Table A-5. Derivation of Inhalation Factors for Inhalation Exposures to Volatile Organic Compounds

Description:	Variable	USEPA Value	DTSC Value	Units
Unit conversion factor	CF_v	1.00E+03	1.00E+03	m^2/cm^2
Apparent Diffusivity	D_A	derived		cm^2/s
Diffusivity in air	D_i	chemical-specific		cm^2/s
Diffusivity in water	D_w	chemical-specific		cm^2/s
Default organic-carbon content	F_{OC}	0.006	0.006	g/g
Henry's law constant	H'	chemical-specific		dimensionless
Soil-water partition coefficient for organics: $Kd=K_{OC}\times F_{OC}$	K_d	chemical-specific		cm^3/g
Soil-organic carbon partition coefficient	K_{OC}	chemical-specific		cm^3/g
Total soil porosity	n	0.43	0.43	$L_{porespace}/L_{soil}$
Inverse of the mean concentration at the center of a 0.5-acre square source in Los Angeles	Q/C_{vol}	68.18	68.18	g/m^2-s per kg/m^3
Dry soil bulk density	ρ_b	1.5	1.5	g/cm^3
Air-filled soil porosity	θ_a	0.28	0.28	L_{air}/L_{soil}
Water-filled soil porosity	θ_w	0.15	0.15	L_{water}/L_{soil}
Inhalation exposure interval, resident	$T_{resident}$	8.20E+08	8.20E+08	seconds
Inhalation exposure interval, worker	T_{worker}	8.20E+08	8.20E+08	seconds
Volatilization Factor for soil	VFs	derived		m^3/kg

VF Derivation

$$VFs = Q/C_{vol} \times \frac{(3.14 \times D_A \times T)^{1/2}}{(2 \times \rho_b \times D_A)} \times CF_v$$

based on:

$$D_A = \frac{\left[\left(\theta_a{}^{10/3} D_i H' + \theta_w{}^{10/3} D_w\right)/n^2\right]}{\rho_B K_d + \theta_w + \theta_a H'}$$

Analyte	D_i (cm^2/s)	Reference	D_w (cm^2/s)	Reference	H' (dimensionless)	Reference	K_{OC} (cm^3/g)	Reference	USEPA Factors K_d (cm^3/g)	USEPA Factors D_A (cm^2/s)	USEPA Factors $VF_{resident}$ m^3/kg	USEPA Factors VF_{worker} m^3/kg	DTSC-Modified Factors K_d (cm^3/g)	DTSC-Modified Factors D_A (cm^2/s)	DTSC-Modified Factors $VF_{resident}$ m^3/kg	DTSC-Modified Factors VF_{worker} m^3/kg
USEPA RSL Analytes																
Acrylonitrile	1.14E-01	RSLs	1.23E-05	RSLs	5.64E-03	RSLs	8.51E+00	RSLs	5.11E-02	2.19E-04	7.79E+03	7.79E+03	5.11E-02	2.19E-04	7.79E+03	7.79E+03
Benzaldehyde	7.44E-02	RSLs	9.46E-06	RSLs	1.09E-03	RSLs	1.11E+01	RSLs	6.65E-02	2.56E-05	2.28E+04	2.28E+04	6.65E-02	2.56E-05	2.28E+04	2.28E+04
Benzene	8.95E-02	RSLs	1.03E-05	RSLs	2.27E-01	RSLs	1.46E+02	RSLs	8.75E-01	1.03E-03	3.59E+03	3.59E+03	8.75E-01	1.03E-03	3.59E+03	3.59E+03
Benzenethiol	7.29E-02	RSLs	9.45E-06	RSLs	1.37E-02	RSLs	2.34E+02	RSLs	1.40E+00	3.44E-05	1.97E+04	1.97E+04	1.40E+00	3.44E-05	1.97E+04	1.97E+04
Bromodichloromethane	5.63E-02	RSLs	1.07E-05	RSLs	8.67E-02	RSLs	3.18E+01	RSLs	1.91E-01	8.23E-04	4.02E+03	4.02E+03	1.91E-01	8.23E-04	4.02E+03	4.02E+03
Bromoform	3.57E-02	RSLs	1.04E-05	RSLs	2.19E-02	RSLs	3.18E+01	RSLs	1.91E-01	1.37E-04	9.84E+03	9.84E+03	1.91E-01	1.37E-04	9.84E+03	9.84E+03
Butadiene, 1,3-	1.00E-01	RSLs	1.03E-05	RSLs	3.01E+00	RSLs	3.96E+01	RSLs	2.38E-01	1.74E-02	8.75E+02	8.75E+02	2.38E-01	1.74E-02	8.75E+02	8.75E+02
Butanol, N-	9.00E-02	RSLs	1.01E-05	RSLs	3.60E-04	RSLs	3.47E+00	RSLs	2.08E-02	1.44E-05	3.04E+04	3.04E+04	2.08E-02	1.44E-05	3.04E+04	3.04E+04
Butylbenzene, n-	5.28E-02	RSLs	7.33E-06	RSLs	6.50E-01	RSLs	1.48E+03	RSLs	8.89E+00	1.95E-04	8.26E+03	8.26E+03	8.89E+00	1.95E-04	8.26E+03	8.26E+03
Butylbenzene, sec-	5.28E-02	RSLs	7.34E-06	RSLs	7.20E-01	RSLs	1.33E+03	RSLs	7.99E+00	2.39E-04	7.45E+03	7.45E+03	7.99E+00	2.39E-04	7.45E+03	7.45E+03
Butylbenzene, tert-	5.30E-02	RSLs	7.37E-06	RSLs	5.40E-01	RSLs	1.00E+03	RSLs	6.01E+00	2.38E-04	7.47E+03	7.47E+03	6.01E+00	2.38E-04	7.47E+03	7.47E+03
Carbon Tetrachloride	5.71E-02	RSLs	9.78E-06	RSLs	1.13E+00	RSLs	4.39E+01	RSLs	2.63E-01	5.82E-03	1.51E+03	1.51E+03	2.63E-01	5.82E-03	1.51E+03	1.51E+03
Chlordane	2.14E-02	RSLs	5.43E-06	RSLs	2.87E-03	RSLs	3.38E+04	RSLs	2.03E+02	1.59E-08	9.14E+05	9.14E+05	2.03E+02	1.59E-08	9.14E+05	9.14E+05
Chloroacetaldehyde, 2-	1.02E-01	RSLs	1.23E-05	RSLs	7.40E-04	RSLs	1.00E+00	RSLs	6.00E-03	3.74E-05	1.89E+04	1.89E+04	6.00E-03	3.74E-05	1.89E+04	1.89E+04
Chlorobutane, 1-	7.84E-02	RSLs	9.33E-06	RSLs	6.83E-01	RSLs	7.22E+01	RSLs	4.33E-01	4.20E-03	1.78E+03	1.78E+03	4.33E-01	4.20E-03	1.78E+03	1.78E+03
Chlorotoluene, o-	6.29E-02	RSLs	8.72E-06	RSLs	1.46E-01	RSLs	3.83E+02	RSLs	2.30E+00	1.96E-04	8.23E+03	8.23E+03	2.30E+00	1.96E-04	8.23E+03	8.23E+03
Chlorotoluene, p-	6.26E-02	RSLs	8.66E-06	RSLs	1.79E-01	RSLs	3.75E+02	RSLs	2.25E+00	2.43E-04	7.39E+03	7.39E+03	2.25E+00	2.43E-04	7.39E+03	7.39E+03
Crotonaldehyde, trans-	9.59E-02	RSLs	1.08E-05	RSLs	7.93E-04	RSLs	1.79E+00	RSLs	1.08E-02	3.62E-05	1.92E+04	1.92E+04	1.08E-02	3.62E-05	1.92E+04	1.92E+04
Cyanides																
~Cyanogen	1.24E-01	RSLs	1.38E-05	RSLs	2.21E-01	RSLs	--	--	9.90E+00	1.41E-04	9.71E+03	9.71E+03	9.90E+00	1.41E-04	9.71E+03	9.71E+03
~Cyanogen Bromide	9.84E-02	RSLs	1.41E-05	RSLs	1.00E+00	RSLs	--	--	9.90E+00	5.01E-04	5.15E+03	5.15E+03	9.90E+00	5.01E-04	5.15E+03	5.15E+03
~Cyanogen Chloride	1.21E-01	RSLs	1.42E-05	RSLs	7.94E-02	RSLs	--	--	9.90E+00	4.96E-05	1.64E+04	1.64E+04	9.90E+00	4.96E-05	1.64E+04	1.64E+04
Dibromobenzene, 1,3-	3.12E-02	RSLs	8.55E-06	RSLs	5.07E-02	RSLs	3.75E+02	RSLs	2.25E+00	3.47E-05	1.96E+04	1.96E+04	2.25E+00	3.47E-05	1.96E+04	1.96E+04
Dibromobenzene, 1,4-	3.33E-02	RSLs	9.34E-06	RSLs	3.65E-02	RSLs	3.75E+02	RSLs	2.25E+00	2.67E-05	2.23E+04	2.23E+04	2.25E+00	2.67E-05	2.23E+04	2.23E+04
Dibromochloromethane	3.66E-02	RSLs	1.06E-05	RSLs	3.20E-02	RSLs	3.18E+01	RSLs	1.91E-01	2.05E-04	8.06E+03	8.06E+03	1.91E-01	2.05E-04	8.06E+03	8.06E+03
Dibromoethane, 1,2-	4.30E-02	RSLs	1.04E-05	RSLs	2.66E-02	RSLs	3.96E+01	RSLs	2.38E-01	1.73E-04	8.77E+03	8.77E+03	2.38E-01	1.73E-04	8.77E+03	8.77E+03
Dichloroethane, 1,1-	8.36E-02	RSLs	1.06E-05	RSLs	2.30E-01	RSLs	3.18E+01	RSLs	1.91E-01	2.98E-03	2.11E+03	2.11E+03	1.91E-01	2.98E-03	2.11E+03	2.11E+03
Dichloroethylene, 1,2-cis-	8.84E-02	RSLs	1.13E-05	RSLs	1.67E-01	RSLs	3.96E+01	RSLs	2.38E-01	2.07E-03	2.53E+03	2.53E+03	2.38E-01	2.07E-03	2.53E+03	2.53E+03
Dichloroethylene, 1,2-trans-	8.76E-02	RSLs	1.12E-05	RSLs	3.85E-01	RSLs	3.96E+01	RSLs	2.38E-01	4.27E-03	1.77E+03	1.77E+03	2.38E-01	4.27E-03	1.77E+03	1.77E+03
Dichloropropane, 1,3-	7.39E-02	RSLs	9.82E-06	RSLs	3.99E-02	RSLs	7.22E+01	RSLs	4.33E-01	2.83E-04	6.86E+03	6.86E+03	4.33E-01	2.83E-04	6.86E+03	6.86E+03
Dichloropropene, 1,3-	7.63E-02	RSLs	1.01E-05	RSLs	1.45E-01	RSLs	7.22E+01	RSLs	4.33E-01	1.02E-03	3.60E+03	3.60E+03	4.33E-01	1.02E-03	3.60E+03	3.60E+03
Dimethylaniline, N,N-	6.25E-02	RSLs	8.31E-06	RSLs	2.32E-03	RSLs	7.87E+01	RSLs	4.72E-01	1.32E-05	3.17E+04	3.17E+04	4.72E-01	1.32E-05	3.17E+04	3.17E+04
Epichlorohydrin	8.89E-02	RSLs	1.11E-05	RSLs	1.24E-03	RSLs	9.91E+00	RSLs	5.94E-02	3.63E-05	1.91E+04	1.91E+04	5.94E-02	3.63E-05	1.91E+04	1.91E+04
Ethyl Acrylate	7.45E-02	RSLs	9.12E-06	RSLs	1.39E-02	RSLs	1.07E+01	RSLs	6.39E-02	3.22E-04	6.43E+03	6.43E+03	6.39E-02	3.22E-04	6.43E+03	6.43E+03
Ethyl Chloride (Chloroethane)	1.04E-01	RSLs	1.16E-05	RSLs	4.54E-01	RSLs	2.17E+01	RSLs	1.30E-01	7.74E-03	1.31E+03	1.31E+03	1.30E-01	7.74E-03	1.31E+03	1.31E+03

Table A-5. Derivation of Inhalation Factors for Inhalation Exposures to Volatile Organic Compounds

Description:	Variable	USEPA Value	DTSC Value	Units
Unit conversion factor	CF_v	1.00E+03	1.00E+03	m^2/cm^2
Apparent Diffusivity	D_A	derived		cm^2/s
Diffusivity in air	D_i	chemical-specific		cm^2/s
Diffusivity in water	D_w	chemical-specific		cm^2/s
Default organic-carbon content	F_{OC}	0.006	0.006	g/g
Henry's law constant	H'	chemical-specific		dimensionless
Soil-water partition coefficient for organics: $Kd=K_{OC}\times F_{OC}$	K_d	chemical-specific		cm^3/g
Soil-organic carbon partition coefficient	K_{OC}	chemical-specific		cm^3/g
Total soil porosity	n	0.43	0.43	$L_{porespace}/L_{soil}$
Inverse of the mean concentration at the center of a 0.5-acre square source in Los Angeles	Q/C_{vol}	68.18	68.18	g/m^2-s per kg/m^3
Dry soil bulk density	ρ_b	1.5	1.5	g/cm^3
Air-filled soil porosity	θ_a	0.28	0.28	L_{air}/L_{soil}
Water-filled soil porosity	θ_w	0.15	0.15	L_{water}/L_{soil}
Inhalation exposure interval, resident	$T_{resident}$	8.20E+08	8.20E+08	seconds
Inhalation exposure interval, worker	T_{worker}	8.20E+08	8.20E+08	seconds
Volatilization Factor for soil	VFs	derived		m^3/kg

VF Derivation

$$VFs = Q/C_{vol} \times \frac{(3.14 \times D_A \times T)^{1/2}}{(2 \times \rho_b \times D_A)} \times CF_v$$

based on:

$$D_A = \frac{\left[\left(\theta_a{}^{10/3} D_i H' + \theta_w{}^{10/3} D_w\right)/n^2\right]}{\rho_B K_d + \theta_w + \theta_a H'}$$

Analyte	D_i (cm^2/s)	Reference	D_w (cm^2/s)	Reference	H' (dimensionless)	Reference	K_{OC} (cm^3/g)	Reference	USEPA Factors K_d (cm^3/g)	USEPA Factors D_A (cm^2/s)	USEPA Factors $VF_{resident}$ m^3/kg	USEPA Factors VF_{worker} m^3/kg	DTSC-Modified Factors K_d (cm^3/g)	DTSC-Modified Factors D_A (cm^2/s)	DTSC-Modified Factors $VF_{resident}$ m^3/kg	DTSC-Modified Factors VF_{worker} m^3/kg
Ethyl Ether	8.52E-02	RSLs	9.36E-06	RSLs	5.03E-02	RSLs	9.70E+00	RSLs	5.82E-02	1.33E-03	3.17E+03	3.17E+03	5.82E-02	1.33E-03	3.17E+03	3.17E+03
Furans																
~Furan	1.03E-01	RSLs	1.17E-05	RSLs	2.21E-01	RSLs	8.00E+01	RSLs	4.80E-01	1.89E-03	2.65E+03	2.65E+03	4.80E-01	1.89E-03	2.65E+03	2.65E+03
Hexachlorobutadiene	2.67E-02	RSLs	7.03E-06	RSLs	4.21E-01	RSLs	8.45E+02	RSLs	5.07E+00	1.11E-04	1.09E+04	1.09E+04	5.07E+00	1.11E-04	1.09E+04	1.09E+04
Isobutyl Alcohol	8.97E-02	RSLs	1.00E-05	RSLs	4.00E-04	RSLs	2.92E+00	RSLs	1.75E-02	1.63E-05	2.85E+04	2.85E+04	1.75E-02	1.63E-05	2.85E+04	2.85E+04
Lead Compounds																
~Tetraethyl Lead	2.46E-02	RSLs	6.40E-06	RSLs	2.32E+01	RSLs	6.48E+02	RSLs	3.89E+00	3.56E-03	1.93E+03	1.93E+03	3.89E+00	3.56E-03	1.93E+03	1.93E+03
Mercury Compounds																
~Mercury (elemental)	3.07E-02	RSLs	6.30E-06	RSLs	4.67E-01	RSLs	--	--	5.20E+01	1.42E-05	3.06E+04	3.06E+04	5.20E+01	1.42E-05	3.06E+04	3.06E+04
Methyl Acetate	9.58E-02	RSLs	1.10E-05	RSLs	4.70E-03	RSLs	3.06E+00	RSLs	1.84E-02	1.96E-04	8.23E+03	8.23E+03	1.84E-02	1.96E-04	8.23E+03	8.23E+03
Methylene Chloride	9.99E-02	RSLs	1.25E-05	RSLs	1.33E-01	RSLs	2.17E+01	RSLs	1.30E-01	2.70E-03	2.22E+03	2.22E+03	1.30E-01	2.70E-03	2.22E+03	2.22E+03
Methylstyrene, Alpha-	6.29E-02	RSLs	8.19E-06	RSLs	1.04E-01	RSLs	6.98E+02	RSLs	4.19E+00	7.89E-05	1.30E+04	1.30E+04	4.19E+00	7.89E-05	1.30E+04	1.30E+04
Mineral oils	3.62E-02	RSLs	6.43E-06	RSLs	3.35E+02	RSLs	4.82E+03	RSLs	2.89E+01	6.86E-03	1.39E+03	1.39E+03	2.89E+01	6.86E-03	1.39E+03	1.39E+03
Pentachloroethane	3.15E-02	RSLs	8.57E-06	RSLs	7.93E-02	RSLs	1.36E+02	RSLs	8.17E-01	1.39E-04	9.78E+03	9.78E+03	8.17E-01	1.39E-04	9.78E+03	9.78E+03
Phosphorus, White	2.19E-01	RSLs	2.77E-05	RSLs	8.63E-02	RSLs	--	--	3.50E+00	2.71E-04	7.00E+03	7.00E+03	3.50E+00	2.71E-04	7.00E+03	7.00E+03
Phthalates																
~Dimethylterephthalate	2.85E-02	RSLs	6.72E-06	RSLs	5.48E-03	RSLs	3.10E+01	RSLs	1.86E-01	2.84E-05	2.16E+04	2.16E+04	1.86E-01	2.84E-05	2.16E+04	2.16E+04
Tetrachloroethane, 1,1,1,2-	4.82E-02	RSLs	9.10E-06	RSLs	1.02E-01	RSLs	8.60E+01	RSLs	5.16E-01	4.02E-04	5.75E+03	5.75E+03	5.16E-01	4.02E-04	5.75E+03	5.75E+03
Tetrachloroethane, 1,1,2,2-	4.89E-02	RSLs	9.29E-06	RSLs	1.50E-02	RSLs	9.49E+01	RSLs	5.70E-01	5.66E-05	1.53E+04	1.53E+04	5.70E-01	5.66E-05	1.53E+04	1.53E+04
Tetrachloroethylene	5.05E-02	RSLs	9.46E-06	RSLs	7.24E-01	RSLs	9.49E+01	RSLs	5.70E-01	2.35E-03	2.38E+03	2.38E+03	5.70E-01	2.35E-03	2.38E+03	2.38E+03
Toluene	7.78E-02	RSLs	9.20E-06	RSLs	2.72E-01	RSLs	2.34E+02	RSLs	1.40E+00	7.04E-04	4.35E+03	4.35E+03	1.40E+00	7.04E-04	4.35E+03	4.35E+03
Tri-n-butyltin	2.15E-02	RSLs	5.35E-06	RSLs	6.22E+01	RSLs	8.09E+03	RSLs	4.85E+01	1.15E-03	3.40E+03	3.40E+03	4.85E+01	1.15E-03	3.40E+03	3.40E+03
Trichlorobenzene, 1,2,3-	3.95E-02	RSLs	8.38E-06	RSLs	5.11E-02	RSLs	1.38E+03	RSLs	8.30E+00	1.25E-05	3.27E+04	3.27E+04	8.30E+00	1.25E-05	3.27E+04	3.27E+04
Trichloroethane, 1,1,1-	6.48E-02	RSLs	9.60E-06	RSLs	7.03E-01	RSLs	4.39E+01	RSLs	2.63E-01	4.77E-03	1.67E+03	1.67E+03	2.63E-01	4.77E-03	1.67E+03	1.67E+03
Trichloropropane, 1,1,2-	5.72E-02	RSLs	9.17E-06	RSLs	1.30E-02	RSLs	9.49E+01	RSLs	5.70E-01	5.72E-05	1.53E+04	1.53E+04	5.70E-01	5.72E-05	1.53E+04	1.53E+04
Trichloropropane, 1,2,3-	5.75E-02	RSLs	9.24E-06	RSLs	1.40E-02	RSLs	1.16E+02	RSLs	6.95E-01	5.24E-05	1.59E+04	1.59E+04	6.95E-01	5.24E-05	1.59E+04	1.59E+04
Trimethylbenzene, 1,3,5-	6.02E-02	RSLs	7.84E-06	RSLs	3.59E-01	RSLs	6.02E+02	RSLs	3.61E+00	2.96E-04	6.70E+03	6.70E+03	3.61E+00	2.96E-04	6.70E+03	6.70E+03
Vinyl Chloride	1.07E-01	RSLs	1.20E-05	RSLs	1.14E+00	RSLs	2.17E+01	RSLs	1.30E-01	1.42E-02	9.66E+02	9.66E+02	1.30E-01	1.42E-02	9.66E+02	9.66E+02
Additional Analytes																
Chloropropane, 2-	1.04E-01	RSLs	1.21E-05	RSLs	7.16E-01	EPISuite v4.11	3.18E+01	EPISuite v4.11	1.91E-01	9.04E-03	1.21E+03	1.21E+03	1.91E-01	9.04E-03	1.21E+03	1.21E+03
Dichlorobenzene, 1,3-	6.82E-02	RSLs	7.97E-06	RSLs	1.08E-01	EPISuite v4.11	2.58E+00	EPISuite v4.11	1.55E-02	2.80E-03	2.18E+03	2.18E+03	1.55E-02	2.80E-03	2.18E+03	2.18E+03
Methylcyclohexane	8.93E-02	RSLs	1.04E-05	RSLs	1.76E+01	EPISuite v4.11	2.34E+02	EPISuite v4.11	1.40E+00	1.70E-02	8.85E+02	8.85E+02	1.40E+00	1.70E-02	8.85E+02	8.85E+02

Table A-6a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, noncarcinogens, resident	$AT_{nc,r}$	26	26	yrs
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency	EF_r	350	350	days/yr
Exposure Time	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		$(\mu g/m^3)^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		$\mu g/m^3$
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		mg/kg
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	$VF_{resident}$	chemical-specific		m^3/kg

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times CF_I \times EF_r \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times ED_r \times ET_r}$$

Mutagens:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{EF_r \times ET_r \times CF_I \times \left(\begin{array}{l} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right)}$$

Trichloroethene:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{IUR \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_I \times \left\{[CAF_I \times ED_r \times EF_r \times ET_r] + \left[MAF_I \times \left(\begin{array}{l} ED_{0-2} \times EF_r \times ET_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ET_r \times ADAF_{2-6} + \\ ED_{6-16} \times EF_r \times ET_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ET_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times CF_I}{AT_c \times 365\frac{day}{year} \times VF_{resident}} + \left[\frac{IUR}{VF_{resident}} \times CF_I\right]\right)}$$

Noncancer Hazard:

$$(R)SL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_i}$$

DTSC, Cadmium - noncarcinogenic hazard:

$$SL_{inh-Cd} = \frac{THQ \times AT_{nc,26-yr\ adult} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_{26-yr\ adult} \times ET_r \times \frac{1}{RfC} \times \frac{1}{PEF} \times CF_i}$$

		Residential USEPA RSL_{inh}					Residential DTSC-SL_{inh}				
Analyte	**Mutagen?**	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)
USEPA RSL Analytes											
Acrylamide	M	1.36E+09	1.00E-04	1.38E+04	6.00E+00	8.51E+06	1.36E+09	1.30E-03	1.06E+03	6.00E+00	8.51E+06
Acrylonitrile		7.79E+03	6.80E-05	3.22E-01	2.00E+00	1.63E+01	7.79E+03	2.90E-04	7.55E-02	5.00E+00	4.06E+01
Arsenic, Inorganic		1.36E+09	4.30E-03	8.88E+02	1.50E-02	2.13E+04	1.36E+09	3.30E-03	1.16E+03	1.50E-02	2.13E+04
Benzaldehyde		2.28E+04	No Toxicity Value	--	No Toxicity Value	--	2.28E+04	No Toxicity Value	--	4.00E+02	9.51E+03
Benzene		3.59E+03	7.80E-06	1.29E+00	3.00E+01	1.12E+02	3.59E+03	2.90E-05	3.47E-01	3.00E+00	1.12E+01
Benzenethiol		1.97E+04	No Toxicity Value	--	No Toxicity Value	--	1.97E+04	No Toxicity Value	--	4.00E+00	8.21E+01
Beryllium and compounds		1.36E+09	2.40E-03	1.59E+03	2.00E-02	2.84E+04	1.36E+09	2.40E-03	1.59E+03	7.00E-03	9.93E+03
Bromodichloromethane		4.02E+03	3.70E-05	3.05E-01	No Toxicity Value	--	4.02E+03	3.70E-05	3.05E-01	8.00E+01	3.35E+02
Bromoform		9.84E+03	1.10E-06	2.51E+01	No Toxicity Value	--	9.84E+03	1.10E-06	2.51E+01	8.00E+01	8.21E+02
Butadiene, 1,3-		8.75E+02	3.00E-05	8.18E-02	2.00E+00	1.82E+00	8.75E+02	1.70E-04	1.44E-02	2.00E+00	1.82E+00
Butanol, N-		3.04E+04	No Toxicity Value	--	No Toxicity Value	--	3.04E+04	No Toxicity Value	--	4.00E+02	1.27E+04
Butylbenzene, n-		8.26E+03	No Toxicity Value	--	No Toxicity Value	--	8.26E+03	No Toxicity Value	--	2.00E+02	1.72E+03
Butylbenzene, sec-		7.45E+03	No Toxicity Value	--	No Toxicity Value	--	7.45E+03	No Toxicity Value	--	4.00E+02	3.11E+03
Butylbenzene, tert-		7.47E+03	No Toxicity Value	--	No Toxicity Value	--	7.47E+03	No Toxicity Value	--	4.00E+02	3.12E+03
Cadmium (Diet)		1.36E+09	1.80E-03	2.12E+03	1.00E-02	1.42E+04	1.36E+09	4.20E-03	9.09E+02	1.00E-02	1.42E+04
Carbon Tetrachloride		1.51E+03	6.00E-06	7.07E-01	1.00E+02	1.58E+02	1.51E+03	4.20E-05	1.01E-01	4.00E+01	6.31E+01
Chlordane		9.14E+05	1.00E-04	2.57E+01	7.00E-01	6.68E+02	9.14E+05	3.40E-04	7.55E+00	7.00E-01	6.68E+02
Chloro-2-methylaniline, 4-		1.36E+09	7.70E-05	4.96E+04	No Toxicity Value	--	1.36E+09	7.70E-05	4.96E+04	No Toxicity Value	--
Chloroacetaldehyde, 2-		1.89E+04	No Toxicity Value	--	No Toxicity Value	--	1.89E+04	6.75E-05	7.84E-01	No Toxicity Value	--
Chlorobutane, 1-		1.78E+03	No Toxicity Value	--	No Toxicity Value	--	1.78E+03	No Toxicity Value	--	1.60E+02	2.97E+02

Table A-6a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, noncarcinogens, resident	$AT_{nc,r}$	26	26	yrs
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency	EF_r	350	350	days/yr
Exposure Time	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		$(\mu g/m^3)^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		$\mu g/m^3$
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		mg/kg
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	$VF_{resident}$	chemical-specific		m^3/kg

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times CF_I \times EF_r \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times ED_r \times ET_r}$$

Mutagens:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{EF_r \times ET_r \times CF_I \times \left(\begin{array}{l} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right)}$$

Trichloroethene:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{IUR \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_I \times \left\{[CAF_I \times ED_r \times EF_r \times ET_r] + \left[MAF_I \times \left(\begin{array}{l} ED_{0-2} \times EF_r \times ET_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ET_r \times ADAF_{2-6} + \\ ED_{6-16} \times EF_r \times ET_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ET_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times CF_I}{AT_c \times 365\frac{day}{year} \times VF_{resident}} + \left[\frac{IUR}{VF_{resident}} \times CF_I\right]\right)}$$

Noncancer Hazard:

$$(R)SL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_i}$$

DTSC, Cadmium - noncarcinogenic hazard:

$$SL_{inh-Cd} = \frac{THQ \times AT_{nc,26-yr\ adult} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_{26-yr\ adult} \times ET_r \times \frac{1}{RfC} \times \frac{1}{PEF} \times CF_i}$$

		Residential USEPA RSL_{inh}					Residential DTSC-SL_{inh}				
Analyte	**Mutagen?**	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)
Chlorotoluene, o-		8.23E+03	No Toxicity Value	--	No Toxicity Value	--	8.23E+03	No Toxicity Value	--	8.00E+01	6.87E+02
Chlorotoluene, p-		7.39E+03	No Toxicity Value	--	No Toxicity Value	--	7.39E+03	No Toxicity Value	--	8.00E+01	6.17E+02
Chromium(III), Insoluble Salts		1.36E+09	No Toxicity Value	--	No Toxicity Value	--	1.36E+09	No Toxicity Value	--	No Toxicity Value	--
Crotonaldehyde, trans-		1.92E+04	No Toxicity Value	--	No Toxicity Value	--	1.92E+04	4.75E-04	1.13E-01	4.00E+00	8.00E+01
Cyanides											
~Cyanogen		9.71E+03	No Toxicity Value	--	No Toxicity Value	--	9.71E+03	No Toxicity Value	--	4.00E+00	4.05E+01
~Cyanogen Bromide		5.15E+03	No Toxicity Value	--	No Toxicity Value	--	5.15E+03	No Toxicity Value	--	3.60E+02	1.93E+03
~Cyanogen Chloride		1.64E+04	No Toxicity Value	--	No Toxicity Value	--	1.64E+04	No Toxicity Value	--	2.00E+02	3.42E+03
Dibromobenzene, 1,3-		1.96E+04	No Toxicity Value	--	No Toxicity Value	--	1.96E+04	No Toxicity Value	--	1.60E+00	3.27E+01
Dibromobenzene, 1,4-		2.23E+04	No Toxicity Value	--	No Toxicity Value	--	2.23E+04	No Toxicity Value	--	4.00E+01	9.31E+02
Dibromochloromethane		8.06E+03	2.70E-05	8.38E-01	No Toxicity Value	--	8.06E+03	2.70E-05	8.38E-01	8.00E+01	6.72E+02
Dibromoethane, 1,2-		8.77E+03	6.00E-04	4.10E-02	9.00E+00	8.23E+01	8.77E+03	7.10E-05	3.47E-01	8.00E-01	7.31E+00
Dichlorobenzidine, 3,3'-		1.36E+09	3.40E-04	1.12E+04	No Toxicity Value	--	1.36E+09	3.40E-04	1.12E+04	No Toxicity Value	--
Dichloroethane, 1,1-		2.11E+03	1.60E-06	3.71E+00	No Toxicity Value	--	2.11E+03	1.60E-06	3.71E+00	8.00E+02	1.76E+03
Dichloroethylene, 1,2-cis-		2.53E+03	No Toxicity Value	--	No Toxicity Value	--	2.53E+03	No Toxicity Value	--	8.00E+00	2.11E+01
Dichloroethylene, 1,2-trans-		1.77E+03	No Toxicity Value	--	No Toxicity Value	--	1.77E+03	No Toxicity Value	--	8.00E+01	1.47E+02
Dichloropropane, 1,3-		6.86E+03	No Toxicity Value	--	No Toxicity Value	--	6.86E+03	No Toxicity Value	--	8.00E+01	5.72E+02
Dichloropropene, 1,3-		3.60E+03	4.00E-06	2.53E+00	2.00E+01	7.52E+01	3.60E+03	1.60E-05	6.32E-01	2.00E+01	7.52E+01
Dimethylaniline, N,N-		3.17E+04	No Toxicity Value	--	No Toxicity Value	--	3.17E+04	No Toxicity Value	--	8.00E+00	2.64E+02
Epichlorohydrin		1.91E+04	1.20E-06	4.48E+01	1.00E+00	2.00E+01	1.91E+04	2.30E-05	2.34E+00	3.00E+00	5.99E+01
Ethyl Acrylate		6.43E+03	No Toxicity Value	--	8.00E+00	5.36E+01	6.43E+03	1.20E-05	1.50E+00	8.00E+00	5.36E+01
Ethyl Chloride (Chloroethane)		1.31E+03	No Toxicity Value	--	1.00E+04	1.37E+04	1.31E+03	1.18E-06	3.13E+00	3.00E+04	4.10E+04

Table A-6a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, noncarcinogens, resident	$AT_{nc,r}$	26	26	yrs
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency	EF_r	350	350	days/yr
Exposure Time	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		$(\mu g/m^3)^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		$\mu g/m^3$
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		mg/kg
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	$VF_{resident}$	chemical-specific		m^3/kg

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times CF_I \times EF_r \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times ED_r \times ET_r}$$

Mutagens:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{EF_r \times ET_r \times CF_I \times \left(\begin{array}{l} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right)}$$

Trichloroethene:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{IUR \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_I \times \left\{[CAF_I \times ED_r \times EF_r \times ET_r] + \left[MAF_I \times \left(\begin{array}{l} ED_{0-2} \times EF_r \times ET_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ET_r \times ADAF_{2-6} + \\ ED_{6-16} \times EF_r \times ET_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ET_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times CF_I}{AT_c \times 365\frac{day}{year} \times VF_{resident}} + \left[\frac{IUR}{VF_{resident}} \times CF_I\right]\right)}$$

Noncancer Hazard:

$$(R)SL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_i}$$

DTSC, Cadmium - noncarcinogenic hazard:

$$SL_{inh-Cd} = \frac{THQ \times AT_{nc,26-yr\ adult} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_{26-yr\ adult} \times ET_r \times \frac{1}{RfC} \times \frac{1}{PEF} \times CF_i}$$

		Residential USEPA RSL_{inh}					Residential DTSC-SL_{inh}				
Analyte	**Mutagen?**	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)
Ethyl Ether		3.17E+03	No Toxicity Value	--	No Toxicity Value	--	3.17E+03	No Toxicity Value	--	8.00E+02	2.64E+03
Furans											
~Furan		2.65E+03	No Toxicity Value	--	No Toxicity Value	--	2.65E+03	No Toxicity Value	--	4.00E+00	1.11E+01
Hexachlorobutadiene		1.09E+04	2.20E-05	1.40E+00	No Toxicity Value	--	1.09E+04	2.20E-05	1.40E+00	4.00E+00	4.56E+01
Isobutyl Alcohol		2.85E+04	No Toxicity Value	--	No Toxicity Value	--	2.85E+04	No Toxicity Value	--	1.20E+03	3.57E+04
Lead Compounds											
~Lead subacetate		1.36E+09	1.20E-05	3.18E+05	No Toxicity Value	--	1.36E+09	1.10E-05	3.47E+05	No Toxicity Value	--
~Tetraethyl Lead		1.93E+03	No Toxicity Value	--	No Toxicity Value	--	1.93E+03	No Toxicity Value	--	4.00E-04	8.06E-04
Mercury Compounds											
~Mercuric Chloride (and other Mercury salts)		1.36E+09	No Toxicity Value	--	3.00E-01	4.25E+05	1.36E+09	No Toxicity Value	--	3.00E-02	4.25E+04
~Mercury (elemental)		3.06E+04	No Toxicity Value	--	3.00E-01	9.56E+00	3.06E+04	No Toxicity Value	--	3.00E-02	9.56E-01
Methyl Acetate		8.23E+03	No Toxicity Value	--	No Toxicity Value	--	8.23E+03	No Toxicity Value	--	4.00E+03	3.43E+04
Methylene Chloride	M	2.22E+03	1.00E-08	2.25E+02	6.00E+02	1.39E+03	2.22E+03	1.00E-06	2.25E+00	4.00E+02	9.27E+02
Methylene-bis(2-chloroaniline), 4,4'-	M	1.36E+09	4.30E-04	3.21E+03	No Toxicity Value	--	1.36E+09	4.30E-04	3.21E+03	No Toxicity Value	--
Methylstyrene, Alpha-		1.30E+04	No Toxicity Value	--	No Toxicity Value	--	1.30E+04	No Toxicity Value	--	2.80E+02	3.79E+03
Mineral oils		1.39E+03	No Toxicity Value	--	No Toxicity Value	--	1.39E+03	No Toxicity Value	--	1.20E+04	1.74E+04
Nickel Soluble Salts		1.36E+09	2.60E-04	1.47E+04	9.00E-02	1.28E+05	1.36E+09	2.60E-04	1.47E+04	1.40E-02	1.99E+04
Pentachloroethane		9.78E+03	No Toxicity Value	--	No Toxicity Value	--	9.78E+03	2.25E-05	1.22E+00	No Toxicity Value	--
Phosphorus, White		7.00E+03	No Toxicity Value	--	No Toxicity Value	--	7.00E+03	No Toxicity Value	--	8.00E-02	5.84E-01
Phthalates											
~Dimethylterephthalate		2.16E+04	No Toxicity Value	--	No Toxicity Value	--	2.16E+04	No Toxicity Value	--	4.00E+02	9.03E+03
Polynuclear Aromatic Hydrocarbons (PAHs)											

Table A-6a. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	yrs
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	yrs
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	yrs
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	yrs
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, noncarcinogens, resident	$AT_{nc,r}$	26	26	yrs
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency	EF_r	350	350	days/yr
Exposure Time	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		$(\mu g/m^3)^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		$\mu g/m^3$
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		mg/kg
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	$VF_{resident}$	chemical-specific		m^3/kg

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times CF_I \times EF_r \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times ED_r \times ET_r}$$

Mutagens:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{EF_r \times ET_r \times CF_I \times \left(\begin{array}{l} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right)}$$

Trichloroethene:

$$(R)SL_{inh} = \frac{TR \times \left(AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}\right)}{IUR \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_I \times \left\{[CAF_I \times ED_r \times EF_r \times ET_r] + \left[MAF_I \times \left(\begin{array}{l} ED_{0-2} \times EF_r \times ET_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ET_r \times ADAF_{2-6} + \\ ED_{6-16} \times EF_r \times ET_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ET_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times CF_I}{AT_c \times 365\frac{day}{year} \times VF_{resident}} + \left[\frac{IUR}{VF_{resident}} \times CF_I\right]\right)}$$

Noncancer Hazard:

$$(R)SL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times \left(\frac{1}{VF_{resident} \text{ or } PEF}\right) \times CF_i}$$

DTSC, Cadmium - noncarcinogenic hazard:

$$SL_{inh-Cd} = \frac{THQ \times AT_{nc,26-yr\ adult} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_{26-yr\ adult} \times ET_r \times \frac{1}{RfC} \times \frac{1}{PEF} \times CF_i}$$

		Residential USEPA RSL_{inh}					Residential DTSC-SL_{inh}				
Analyte	**Mutagen?**	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)	**$VF_{resident}$ or PEF** m^3/kg	**IUR** $(\mu g/m^3)^{-1}$	**Cancer** (mg/kg)	**RfC** $(\mu g/m^3)$	**Noncancer** (mg/kg)
~Benzo[k]fluoranthene	M	1.36E+09	1.10E-04	1.25E+04	No Toxicity Value	--	1.36E+09	1.10E-04	1.25E+04	No Toxicity Value	--
~Chrysene	M	1.36E+09	1.10E-05	1.25E+05	No Toxicity Value	--	1.36E+09	1.10E-05	1.25E+05	No Toxicity Value	--
Tetrachloroethane, 1,1,1,2-		5.75E+03	7.40E-06	2.18E+00	No Toxicity Value	--	5.75E+03	7.40E-06	2.18E+00	1.20E+02	7.20E+02
Tetrachloroethane, 1,1,2,2-		1.53E+04	5.80E-05	7.42E-01	No Toxicity Value	--	1.53E+04	5.80E-05	7.42E-01	8.00E+01	1.28E+03
Tetrachloroethylene		2.38E+03	2.60E-07	2.57E+01	4.00E+01	9.92E+01	2.38E+03	5.90E-06	1.13E+00	3.50E+01	8.68E+01
Toluene		4.35E+03	No Toxicity Value	--	5.00E+03	2.27E+04	4.35E+03	No Toxicity Value	--	3.00E+02	1.36E+03
Tri-n-butyltin		3.40E+03	No Toxicity Value	--	No Toxicity Value	--	3.40E+03	No Toxicity Value	--	1.20E+00	4.26E+00
Trichlorobenzene, 1,2,3-		3.27E+04	No Toxicity Value	--	No Toxicity Value	--	3.27E+04	No Toxicity Value	--	3.20E+00	1.09E+02
Trichloroethane, 1,1,1-		1.67E+03	No Toxicity Value	--	5.00E+03	8.70E+03	1.67E+03	No Toxicity Value	--	1.00E+03	1.74E+03
Trichlorophenol, 2,4,6-		1.36E+09	3.10E-06	1.23E+06	No Toxicity Value	--	1.36E+09	2.00E-05	1.91E+05	No Toxicity Value	--
Trichloropropane, 1,1,2-		1.53E+04	No Toxicity Value	--	No Toxicity Value	--	1.53E+04	No Toxicity Value	--	2.00E+01	3.18E+02
Trichloropropane, 1,2,3-	M	1.59E+04	No Toxicity Value	--	3.00E-01	4.98E+00	1.59E+04	7.50E-03	2.15E-03	3.00E-01	4.98E+00
Trimethylbenzene, 1,3,5-		6.70E+03	No Toxicity Value	--	No Toxicity Value	--	6.70E+03	No Toxicity Value	--	4.00E+01	2.80E+02
Vanadium and Compounds		1.36E+09	No Toxicity Value	--	1.00E-01	1.42E+05	1.36E+09	No Toxicity Value	--	1.00E-01	1.42E+05
Vinyl Chloride	M (VC)	9.66E+02	4.40E-06	1.62E-01	1.00E+02	1.01E+02	9.66E+02	7.80E-05	9.13E-03	1.00E+02	1.01E+02
Additional Analytes											
Beryllium Sulfate		1.36E+09	2.40E-03	1.59E+03	2.00E-02	2.84E+04	1.36E+09	8.60E-01	4.44E+00	7.00E-03	9.93E+03
Chloropropane, 2-		1.21E+03	No Toxicity Value	--	No Toxicity Value	--	1.21E+03	No Toxicity Value	--	1.00E+02	1.26E+02
Dichlorobenzene, 1,3-		2.18E+03	No Toxicity Value	--	No Toxicity Value	--	2.18E+03	No Toxicity Value	--	1.20E+02	2.73E+02
Methylcyclohexane		8.85E+02	No Toxicity Value	--	No Toxicity Value	--	8.85E+02	No Toxicity Value	--	6.00E+03	5.54E+03

Table A-6b. USEPA RSLs and DTSC-SLs for a Commercial Industrial Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in air	C_{air}	chemical-specific		µg/m^3
COPC Concentration in soil	C_{soil}	chemical-specific		mg/kg
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional screening level, inhalation	RSL_{inh}	chemical-specific		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	VF_{worker}	chemical-specific		m^3/kg

Equations

Carcinogen:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times IUR \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

Noncarcinogen:

$$RSL_{inh} = \frac{THQ \times AT_w \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times \frac{1}{RfC} \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

	USEPA Commercial RSL_{inh}					DTSC-Modified Residential RSLinh				
Analyte	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)
USEPA RSL Analytes										
Acrylamide	1.36E+09	1.00E-04	1.67E+05	6.00E+00	3.57E+07	1.36E+09	1.30E-03	1.28E+04	6.00E+00	3.57E+07
Acrylonitrile	7.79E+03	6.80E-05	1.41E+00	2.00E+00	6.83E+01	7.79E+03	2.90E-04	3.30E-01	5.00E+00	1.71E+02
Arsenic, Inorganic	1.36E+09	4.30E-03	3.88E+03	1.50E-02	8.93E+04	1.36E+09	3.30E-03	5.05E+03	1.50E-02	8.94E+04
Benzaldehyde	2.28E+04	No Toxicity Value	--	No Toxicity Value	--	2.28E+04	No Toxicity Value	--	4.00E+02	3.99E+04
Benzene	3.59E+03	7.80E-06	5.64E+00	3.00E+01	4.71E+02	3.59E+03	2.90E-05	1.52E+00	3.00E+00	4.71E+01
Benzenethiol	1.97E+04	No Toxicity Value	--	No Toxicity Value	--	1.97E+04	No Toxicity Value	--	4.00E+00	3.45E+02
Beryllium and compounds	1.36E+09	2.40E-03	6.95E+03	2.00E-02	1.19E+05	1.36E+09	2.40E-03	6.95E+03	7.00E-03	4.17E+04
Bromodichloromethane	4.02E+03	3.70E-05	1.33E+00	No Toxicity Value	--	4.02E+03	3.70E-05	1.33E+00	8.00E+01	1.41E+03
Bromoform	9.84E+03	1.10E-06	1.10E+02	No Toxicity Value	--	9.84E+03	1.10E-06	1.10E+02	8.00E+01	3.45E+03
Butadiene, 1,3-	8.75E+02	3.00E-05	3.58E-01	2.00E+00	7.66E+00	8.75E+02	1.70E-04	6.31E-02	2.00E+00	7.66E+00
Butanol, N-	3.04E+04	No Toxicity Value	--	No Toxicity Value	--	3.04E+04	No Toxicity Value	--	4.00E+02	5.32E+04
Butylbenzene, n-	8.26E+03	No Toxicity Value	--	No Toxicity Value	--	8.26E+03	No Toxicity Value	--	2.00E+02	7.23E+03
Butylbenzene, sec-	7.45E+03	No Toxicity Value	--	No Toxicity Value	--	7.45E+03	No Toxicity Value	--	4.00E+02	1.31E+04
Butylbenzene, tert-	7.47E+03	No Toxicity Value	--	No Toxicity Value	--	7.47E+03	No Toxicity Value	--	4.00E+02	1.31E+04
Cadmium (Diet)	1.36E+09	1.80E-03	9.26E+03	1.00E-02	5.95E+04	1.36E+09	4.20E-03	3.97E+03	1.00E-02	5.96E+04
Carbon Tetrachloride	1.51E+03	6.00E-06	3.09E+00	1.00E+02	6.62E+02	1.51E+03	4.20E-05	4.41E-01	4.00E+01	2.65E+02
Chlordane	9.14E+05	1.00E-04	1.12E+02	7.00E-01	2.80E+03	9.14E+05	3.40E-04	3.30E+01	7.00E-01	2.80E+03
Chloro-2-methylaniline, 4-	1.36E+09	7.70E-05	2.17E+05	No Toxicity Value	--	1.36E+09	7.70E-05	2.17E+05	No Toxicity Value	--
Chloroacetaldehyde, 2-	1.89E+04	No Toxicity Value	--	No Toxicity Value	--	1.89E+04	6.75E-05	3.43E+00	No Toxicity Value	--
Chlorobutane, 1-	1.78E+03	No Toxicity Value	--	No Toxicity Value	--	1.78E+03	No Toxicity Value	--	1.60E+02	1.25E+03
Chlorotoluene, o-	8.23E+03	No Toxicity Value	--	No Toxicity Value	--	8.23E+03	No Toxicity Value	--	8.00E+01	2.89E+03
Chlorotoluene, p-	7.39E+03	No Toxicity Value	--	No Toxicity Value	--	7.39E+03	No Toxicity Value	--	8.00E+01	2.59E+03
Chromium(III), Insoluble Salts	1.36E+09	No Toxicity Value	--	No Toxicity Value	--	1.36E+09	No Toxicity Value	--	No Toxicity Value	--
Crotonaldehyde, trans-	1.92E+04	No Toxicity Value	--	No Toxicity Value	--	1.92E+04	4.75E-04	4.95E-01	4.00E+00	3.36E+02
Cyanides										
~Cyanogen	9.71E+03	No Toxicity Value	--	No Toxicity Value	--	9.71E+03	No Toxicity Value	--	4.00E+00	1.70E+02
~Cyanogen Bromide	5.15E+03	No Toxicity Value	--	No Toxicity Value	--	5.15E+03	No Toxicity Value	--	3.60E+02	8.12E+03
~Cyanogen Chloride	1.64E+04	No Toxicity Value	--	No Toxicity Value	--	1.64E+04	No Toxicity Value	--	2.00E+02	1.43E+04

Table A-6b. USEPA RSLs and DTSC-SLs for a Commercial Industrial Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in air	C_{air}	chemical-specific		µg/m^3
COPC Concentration in soil	C_{soil}	chemical-specific		mg/kg
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional screening level, inhalation	RSL_{inh}	chemical-specific		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	VF_{worker}	chemical-specific		m^3/kg

Equations

Carcinogen:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times IUR \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

Noncarcinogen:

$$RSL_{inh} = \frac{THQ \times AT_w \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times \frac{1}{RfC} \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

	USEPA Commercial RSL_{inh}					DTSC-Modified Residential RSLinh				
Analyte	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)
Dibromobenzene, 1,3-	1.96E+04	No Toxicity Value	--	No Toxicity Value	--	1.96E+04	No Toxicity Value	--	1.60E+00	1.37E+02
Dibromobenzene, 1,4-	2.23E+04	No Toxicity Value	--	No Toxicity Value	--	2.23E+04	No Toxicity Value	--	4.00E+01	3.91E+03
Dibromochloromethane	8.06E+03	2.70E-05	3.66E+00	No Toxicity Value	--	8.06E+03	2.70E-05	3.66E+00	8.00E+01	2.82E+03
Dibromoethane, 1,2-	8.77E+03	6.00E-04	1.79E-01	9.00E+00	3.46E+02	8.77E+03	7.10E-05	1.51E+00	8.00E-01	3.07E+01
Dichlorobenzidine, 3,3'-	1.36E+09	3.40E-04	4.90E+04	No Toxicity Value	--	1.36E+09	3.40E-04	4.91E+04	No Toxicity Value	--
Dichloroethane, 1,1-	2.11E+03	1.60E-06	1.62E+01	No Toxicity Value	--	2.11E+03	1.60E-06	1.62E+01	8.00E+02	7.40E+03
Dichloroethylene, 1,2-cis-	2.53E+03	No Toxicity Value	--	No Toxicity Value	--	2.53E+03	No Toxicity Value	--	8.00E+00	8.88E+01
Dichloroethylene, 1,2-trans-	1.77E+03	No Toxicity Value	--	No Toxicity Value	--	1.77E+03	No Toxicity Value	--	8.00E+01	6.19E+02
Dichloropropane, 1,3-	6.86E+03	No Toxicity Value	--	No Toxicity Value	--	6.86E+03	No Toxicity Value	--	8.00E+01	2.40E+03
Dichloropropene, 1,3-	3.60E+03	4.00E-06	1.11E+01	2.00E+01	3.16E+02	3.60E+03	1.60E-05	2.76E+00	2.00E+01	3.16E+02
Dimethylaniline, N,N-	3.17E+04	No Toxicity Value	--	No Toxicity Value	--	3.17E+04	No Toxicity Value	--	8.00E+00	1.11E+03
Epichlorohydrin	1.91E+04	1.20E-06	1.96E+02	1.00E+00	8.39E+01	1.91E+04	2.30E-05	1.02E+01	3.00E+00	2.52E+02
Ethyl Acrylate	6.43E+03	No Toxicity Value	--	8.00E+00	2.25E+02	6.43E+03	1.20E-05	6.57E+00	8.00E+00	2.25E+02
Ethyl Chloride (Chloroethane)	1.31E+03	No Toxicity Value	--	1.00E+04	5.74E+04	1.31E+03	1.18E-06	1.37E+01	3.00E+04	1.72E+05
Ethyl Ether	3.17E+03	No Toxicity Value	--	No Toxicity Value	--	3.17E+03	No Toxicity Value	--	8.00E+02	1.11E+04
Furans										
~Furan	2.65E+03	No Toxicity Value	--	No Toxicity Value	--	2.65E+03	No Toxicity Value	--	4.00E+00	4.65E+01
Hexachlorobutadiene	1.09E+04	2.20E-05	6.10E+00	No Toxicity Value	--	1.09E+04	2.20E-05	6.10E+00	4.00E+00	1.92E+02
Isobutyl Alcohol	2.85E+04	No Toxicity Value	--	No Toxicity Value	--	2.85E+04	No Toxicity Value	--	1.20E+03	1.50E+05
Lead Compounds										
~Lead subacetate	1.36E+09	1.20E-05	1.39E+06	No Toxicity Value	--	1.36E+09	1.10E-05	1.52E+06	No Toxicity Value	--
~Tetraethyl Lead	1.93E+03	No Toxicity Value	--	No Toxicity Value	--	1.93E+03	No Toxicity Value	--	4.00E-04	3.39E-03
Mercury Compounds										
~Mercuric Chloride (and other Mercury salts)	1.36E+09	No Toxicity Value	--	3.00E-01	1.79E+06	1.36E+09	No Toxicity Value	--	3.00E-02	1.79E+05
~Mercury (elemental)	3.06E+04	No Toxicity Value	--	3.00E-01	4.02E+01	3.06E+04	No Toxicity Value	--	3.00E-02	4.02E+00
Methyl Acetate	8.23E+03	No Toxicity Value	--	No Toxicity Value	--	8.23E+03	No Toxicity Value	--	4.00E+03	1.44E+05
Methylene Chloride	2.22E+03	1.00E-08	2.72E+03	6.00E+02	5.84E+03	2.22E+03	1.00E-06	2.72E+01	4.00E+02	3.89E+03
Methylene-bis(2-chloroaniline), 4,4'-	1.36E+09	4.30E-04	3.88E+04	No Toxicity Value	--	1.36E+09	4.30E-04	3.88E+04	No Toxicity Value	--
Methylstyrene, Alpha-	1.30E+04	No Toxicity Value	--	No Toxicity Value	--	1.30E+04	No Toxicity Value	--	2.80E+02	1.59E+04

Table A-6b. USEPA RSLs and DTSC-SLs for a Commercial Industrial Receptor Exposed to Compounds from Soil via Inhalation

Description	Variable	USEPA Value	DTSC Value	Units
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in air	C_{air}	chemical-specific		µg/m^3
COPC Concentration in soil	C_{soil}	chemical-specific		mg/kg
Conversion Factor	CF_i	1.0E+03	1.0E+03	µg/mg
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Particulate emission factor (non-VOCs)	PEF	1.359E+09	1.360E+09	m^3/kg
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional screening level, inhalation	RSL_{inh}	chemical-specific		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Volatilization Factor for VOCs (Table A-4)	VF_{worker}	chemical-specific		m^3/kg

Equations

Carcinogen:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times IUR \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

Noncarcinogen:

$$RSL_{inh} = \frac{THQ \times AT_w \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_w \times ED_w \times ET_w \times \frac{1}{RfC} \times CF_I \times \left(\frac{1}{VF_{worker} \text{ or } PEF}\right)}$$

	USEPA Commercial RSL_{inh}					DTSC-Modified Residential RSLinh				
Analyte	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)	**VF_{worker} or PEF** m^3/kg	**IUR** (µg/m^3)$^{-1}$	**Cancer** (mg/kg)	**RfC** (µg/m^3)	**Noncancer** (mg/kg)
Mineral oils	1.39E+03	No Toxicity Value	--	No Toxicity Value	--	1.39E+03	No Toxicity Value	--	1.20E+04	7.32E+04
Nickel Soluble Salts	1.36E+09	2.60E-04	6.41E+04	9.00E-02	5.36E+05	1.36E+09	2.60E-04	6.42E+04	1.40E-02	8.34E+04
Pentachloroethane	9.78E+03	No Toxicity Value	--	No Toxicity Value	--	9.78E+03	2.25E-05	5.33E+00	No Toxicity Value	--
Phosphorus, White	7.00E+03	No Toxicity Value	--	No Toxicity Value	--	7.00E+03	No Toxicity Value	--	8.00E-02	2.45E+00
Phthalates										
~Dimethylterephthalate	2.16E+04	No Toxicity Value	--	No Toxicity Value	--	2.16E+04	No Toxicity Value	--	4.00E+02	3.79E+04
Polynuclear Aromatic Hydrocarbons (PAHs)										
~Benzo[k]fluoranthene	1.36E+09	1.10E-04	1.52E+05	No Toxicity Value	--	1.36E+09	1.10E-04	1.52E+05	No Toxicity Value	--
~Chrysene	1.36E+09	1.10E-05	1.52E+06	No Toxicity Value	--	1.36E+09	1.10E-05	1.52E+06	No Toxicity Value	--
Tetrachloroethane, 1,1,1,2-	5.75E+03	7.40E-06	9.54E+00	No Toxicity Value	--	5.75E+03	7.40E-06	9.54E+00	1.20E+02	3.02E+03
Tetrachloroethane, 1,1,2,2-	1.53E+04	5.80E-05	3.24E+00	No Toxicity Value	--	1.53E+04	5.80E-05	3.24E+00	8.00E+01	5.37E+03
Tetrachloroethylene	2.38E+03	2.60E-07	1.12E+02	4.00E+01	4.17E+02	2.38E+03	5.90E-06	4.94E+00	3.50E+01	3.65E+02
Toluene	4.35E+03	No Toxicity Value	--	5.00E+03	9.52E+04	4.35E+03	No Toxicity Value	--	3.00E+02	5.71E+03
Tri-n-butyltin	3.40E+03	No Toxicity Value	--	No Toxicity Value	--	3.40E+03	No Toxicity Value	--	1.20E+00	1.79E+01
Trichlorobenzene, 1,2,3-	3.27E+04	No Toxicity Value	--	No Toxicity Value	--	3.27E+04	No Toxicity Value	--	3.20E+00	4.58E+02
Trichloroethane, 1,1,1-	1.67E+03	No Toxicity Value	--	5.00E+03	3.66E+04	1.67E+03	No Toxicity Value	--	1.00E+03	7.31E+03
Trichlorophenol, 2,4,6-	1.36E+09	3.10E-06	5.38E+06	No Toxicity Value	--	1.36E+09	2.00E-05	8.34E+05	No Toxicity Value	--
Trichloropropane, 1,1,2-	1.53E+04	No Toxicity Value	--	No Toxicity Value	--	1.53E+04	No Toxicity Value	--	2.00E+01	1.34E+03
Trichloropropane, 1,2,3-	1.59E+04	No Toxicity Value	--	3.00E-01	2.09E+01	1.59E+04	7.50E-03	2.60E-02	3.00E-01	2.09E+01
Trimethylbenzene, 1,3,5-	6.70E+03	No Toxicity Value	--	No Toxicity Value	--	6.70E+03	No Toxicity Value	--	4.00E+01	1.17E+03
Vanadium and Compounds	1.36E+09	No Toxicity Value	--	1.00E-01	5.95E+05	1.36E+09	No Toxicity Value	--	1.00E-01	5.96E+05
Vinyl Chloride	9.66E+02	4.40E-06	2.69E+00	1.00E+02	4.23E+02	9.66E+02	7.80E-05	1.52E-01	1.00E+02	4.23E+02
Additional Analytes										
Beryllium Sulfate	1.36E+09	2.40E-03	6.95E+03	2.00E-02	1.19E+05	1.36E+09	8.60E-01	1.94E+01	7.00E-03	4.17E+04
Chloropropane, 2-	1.21E+03	No Toxicity Value	--	No Toxicity Value	--	1.21E+03	No Toxicity Value	--	1.00E+02	5.31E+02
Dichlorobenzene, 1,3-	2.18E+03	No Toxicity Value	--	No Toxicity Value	--	2.18E+03	No Toxicity Value	--	1.20E+02	1.14E+03
Methylcyclohexane	8.85E+02	No Toxicity Value	--	No Toxicity Value	--	8.85E+02	No Toxicity Value	--	6.00E+03	2.33E+04

Table B-1. DTSC-Recommended Screening Levels for Tap Water

		Toxicity Factor for Final Screening Value								Screening Levels for Tap Water (µg/L)							
		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration		Cancer Endpoint				Noncancer Endpoint			
Analyte	CAS #	SFo (mg/kg-d)$^{-1}$	Source	IUR (µg/m^3)$^{-1}$	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m^3)	Source	USEPA $RSL_{Combined}$	$DTSC\text{-}SL_{Combined}$	Final Value	Source	USEPA $RSL_{Combined}$	$DTSC\text{-}SL_{Combined}$	Final Value	Source
USEPA RSL Analytes																	
Acetophenone	98-86-2	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	1.9E+03	5.8E+02	5.8E+02	DTSC
Acrylamide	79-06-1	4.5E+00	OEHHA	1.3E-03	OEHHA	2.0E-03	IRIS	6.0E+00	IRIS	5.0E-02	5.6E-03	5.6E-03	DTSC	4.0E+01	4.0E+01	4.0E+01	USEPA
Acrylonitrile	107-13-1	1.0E+00	OEHHA	2.9E-04	OEHHA	4.0E-02	ATSDR	2.0E+00	IRIS	5.2E-02	1.5E-02	1.5E-02	DTSC	4.1E+00	1.0E+01	4.1E+00	USEPA
Aldrin	309-00-2	1.7E+01	IRIS	4.9E-03	IRIS	3.0E-05	IRIS	1.2E-01	Route	9.2E-04	9.2E-04	9.2E-04	USEPA	6.0E-01	1.8E-01	1.8E-01	DTSC
Arsenic, Inorganic	7440-38-2	9.5E+00	OEHHA PHG	3.3E-03	OEHHA	3.5E-06	OEHHA	1.5E-02	OEHHA	5.2E-02	8.2E-03	8.2E-03	DTSC	6.0E+00	7.0E-02	7.0E-02	DTSC
Benzaldehyde	100-52-7	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	1.9E+03	5.8E+02	5.8E+02	DTSC
Benzene	71-43-2	1.0E-01	OEHHA	2.9E-05	OEHHA	4.0E-03	IRIS	3.0E+00	OEHHA	4.5E-01	1.5E-01	1.5E-01	DTSC	3.3E+01	5.7E+00	5.7E+00	DTSC
Benzenethiol	108-98-5	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route	--	--	--	--	1.7E+01	5.6E+00	5.6E+00	DTSC
Beryllium and compounds	7440-41-7	--	--	--	--	2.0E-04	OEHHA PHG	7.0E-03	OEHHA	--	--	--	--	2.5E+01	4.0E+00	4.0E+00	DTSC
Bis(2-chloro-1-methylethyl) ether	108-60-1	7.0E-02	HEAST	1.0E-05	HEAST	4.0E-02	IRIS	1.6E+02	Route	3.6E-01	3.6E-01	3.6E-01	USEPA	7.1E+02	2.3E+02	2.3E+02	DTSC
Bromodichloromethane	75-27-4	1.3E-01	OEHHA	3.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	1.3E-01	1.2E-01	1.2E-01	DTSC	3.8E+02	1.2E+02	1.2E+02	DTSC
Bromoform	75-25-2	1.1E-02	OEHHA	1.1E-06	IRIS	2.0E-02	IRIS	8.0E+01	Route	3.3E+00	2.9E+00	2.9E+00	DTSC	3.8E+02	1.2E+02	1.2E+02	DTSC
Butanol, N-	71-36-3	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	2.0E+03	5.9E+02	5.9E+02	DTSC
Butylbenzene, n-	104-51-8	--	--	--	--	5.0E-02	PPRTV	2.0E+02	Route	--	--	--	--	1.0E+03	2.9E+02	2.9E+02	DTSC
Butylbenzene, sec-	135-98-8	--	--	--	--	1.0E-01	Screening PPRTV	4.0E+02	Route	--	--	--	--	2.0E+03	5.9E+02	5.9E+02	DTSC
Carbon Tetrachloride	56-23-5	1.5E-01	OEHHA	4.2E-05	OEHHA	4.0E-03	IRIS	4.0E+01	OEHHA	4.5E-01	1.0E-01	1.0E-01	DTSC	4.9E+01	3.6E+01	3.6E+01	DTSC
Chloral Hydrate	302-17-0	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	2.0E+03	5.9E+02	5.9E+02	DTSC
Chlordane	12789-03-6	1.3E+00	OEHHA	3.4E-04	OEHHA	5.0E-04	IRIS	7.0E-01	IRIS	4.5E-02	1.3E-02	1.3E-02	DTSC	1.3E+00	1.3E+00	1.3E+00	USEPA
Chloroacetaldehyde, 2-	107-20-0	2.7E-01	Screening PPRTV	6.8E-05	Route	--	--	--	--	2.9E-01	6.4E-02	6.4E-02	DTSC	--	--	--	--
Chloroethanol, 2-	107-07-3	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route	--	--	--	--	4.0E+02	1.2E+02	1.2E+02	DTSC
Chlorophenol, 2-	95-57-8	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route	--	--	--	--	9.1E+01	2.9E+01	2.9E+01	DTSC
Crotonaldehyde, trans-	123-73-9	1.9E+00	HEAST	4.8E-04	Route	1.0E-03	PPRTV	4.0E+00	Route	4.0E-02	9.1E-03	9.1E-03	DTSC	2.0E+01	5.9E+00	5.9E+00	DTSC
Cyanides																	
~Cyanogen	460-19-5	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	--	--	--	2.0E+01	5.9E+00	5.9E+00	DTSC
~Cyanogen Bromide	506-68-3	--	--	--	--	9.0E-02	IRIS	3.6E+02	Route	--	--	--	--	1.8E+03	5.3E+02	5.3E+02	DTSC
~Cyanogen Chloride	506-77-4	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route	--	--	--	--	1.0E+03	2.9E+02	2.9E+02	DTSC
~Thiocyanic Acid	463-56-9	--	--	--	--	2.0E-04	PPRTV	8.0E-01	Route	--	--	--	--	4.0E+00	1.2E+00	1.2E+00	DTSC
Cyclohexylamine	108-91-8	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route	--	--	--	--	3.8E+03	1.2E+03	1.2E+03	DTSC
Dibromochloromethane	124-48-1	9.4E-02	OEHHA	2.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	1.7E-01	1.6E-01	1.6E-01	DTSC	3.8E+02	1.2E+02	1.2E+02	DTSC
Dibromoethane, 1,2-	106-93-4	2.0E+00	IRIS	6.0E-04	IRIS	9.0E-03	IRIS	8.0E-01	OEHHA	7.5E-03	1.6E-02	7.5E-03	USEPA	1.7E+01	1.7E+00	1.7E+00	DTSC
Dichloroethane, 1,1-	75-34-3	5.7E-03	OEHHA	1.6E-06	OEHHA	2.0E-01	PPRTV	8.0E+02	Route	2.7E+00	2.7E+00	2.7E+00	USEPA	3.8E+03	1.2E+03	1.2E+03	DTSC
Dichloroethylene, 1,2-cis-	156-59-2	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	3.7E+01	1.2E+01	1.2E+01	DTSC
Dichloroethylene, 1,2-trans-	156-60-5	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route	--	--	--	--	3.6E+02	1.1E+02	1.1E+02	DTSC
Dichloropropane, 1,3-	142-28-9	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route	--	--	--	--	3.7E+02	1.1E+02	1.1E+02	DTSC
Diethylformamide	617-84-5	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route	--	--	--	--	2.0E+01	5.9E+00	5.9E+00	DTSC
Diisopropyl Methylphosphonate	1445-75-6	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route	--	--	--	--	1.6E+03	4.7E+02	4.7E+02	DTSC
Dimethylaniline, N,N-	121-69-7	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	3.5E+01	1.1E+01	1.1E+01	DTSC
Dithiane, 1,4-	505-29-3	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route	--	--	--	--	2.0E+02	5.9E+01	5.9E+01	DTSC
Endosulfan	115-29-7	--	--	--	--	6.0E-03	IRIS	2.4E+01	Route	--	--	--	--	1.0E+02	3.3E+01	3.3E+01	DTSC
Epichlorohydrin	106-89-8	8.0E-02	OEHHA	2.3E-05	OEHHA	6.0E-03	PPRTV	1.0E+00	IRIS	2.9E+00	1.9E-01	1.9E-01	DTSC	2.0E+00	5.9E+00	2.0E+00	USEPA
Ethyl Acrylate	140-88-5	4.8E-02	HEAST	1.2E-05	Route	5.0E-03	PPRTV	8.0E+00	PPRTV	1.6E+00	3.6E-01	3.6E-01	DTSC	1.4E+01	1.4E+01	1.4E+01	USEPA
Ethyl Chloride (Chloroethane)	75-00-3	4.7E-03	OEHHA NSRL	1.2E-06	Route	No Toxicity Value	--	1.0E+04	IRIS	--	3.7E+00	3.7E+00	DTSC	2.1E+04	6.3E+04	2.1E+04	USEPA
Ethyl Ether	60-29-7	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route	--	--	--	--	3.9E+03	1.2E+03	1.2E+03	DTSC
Ethylene Diamine	107-15-3	--	--	--	--	9.0E-02	PPRTV	3.6E+02	Route	--	--	--	--	1.8E+03	5.3E+02	5.3E+02	DTSC
Furans																	
~Furan	110-00-9	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	--	--	--	1.9E+01	5.8E+00	5.8E+00	DTSC
Guanidine	113-00-8	--	--	--	--	1.0E-02	Screening PPRTV	4.0E+01	Route	--	--	--	--	2.0E+02	5.9E+01	5.9E+01	DTSC
Hexabromobenzene	87-82-1	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	4.0E+01	1.2E+01	1.2E+01	DTSC
Hexachlorobenzene	118-74-1	1.8E+00	OEHHA	5.1E-04	OEHHA	8.0E-04	IRIS	3.2E+00	Route	9.8E-03	8.8E-03	8.8E-03	DTSC	1.6E+01	4.7E+00	4.7E+00	DTSC
Isobutyl Alcohol	78-83-1	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route	--	--	--	--	5.9E+03	1.8E+03	1.8E+03	DTSC
Lead Compounds																	
~Lead subacetate	1335-32-6	3.8E-02	OEHHA	1.1E-05	OEHHA	--	--	--	--	9.2E+00	2.1E+00	2.1E+00	DTSC	--	--	--	--
Merphos	150-50-5	--	--	--	--	3.0E-05	IRIS	1.2E-01	Route	--	--	--	--	6.0E-01	1.8E-01	1.8E-01	DTSC
Methyl Acetate	79-20-9	--	--	--	--	1.0E+00	Screening PPRTV	4.0E+03	Route	--	--	--	--	2.0E+04	5.9E+03	5.9E+03	DTSC
Methylene Chloride	75-09-2	1.4E-02	OEHHA	1.0E-06	OEHHA	6.0E-03	IRIS	4.0E+02	OEHHA	1.1E+01	9.3E-01	9.3E-01	DTSC	1.1E+02	1.0E+02	1.0E+02	DTSC
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.5E+00	OEHHA	4.3E-04	OEHHA	2.0E-03	PPRTV	No Toxicity Value	--	1.6E-01	1.0E-02	1.0E-02	DTSC	2.6E+01	2.6E+01	2.6E+01	USEPA
Mineral oils	8012-95-1	--	--	--	--	3.0E+00	PPRTV	1.2E+04	Route	--	--	--	--	6.0E+04	1.8E+04	1.8E+04	DTSC
Mirex	2385-85-5	1.8E+01	OEHHA	5.1E-03	OEHHA	2.0E-04	IRIS	8.0E-01	Route	8.8E-04	8.8E-04	8.8E-04	USEPA	4.0E+00	1.2E+00	1.2E+00	DTSC
Naled	300-76-5	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	4.0E+01	1.2E+01	1.2E+01	DTSC
Nitrotoluene, o-	88-72-2	2.2E-01	PPRTV	5.5E-05	Route	9.0E-04	PPRTV	3.6E+00	Route	3.1E-01	7.7E-02	7.7E-02	DTSC	1.6E+01	5.1E+00	5.1E+00	DTSC
Pentachloroethane	76-01-7	9.0E-02	PPRTV	2.3E-05	Route	--	--	--	--	6.4E-01	1.8E-01	1.8E-01	DTSC	--	--	--	--
Perfluorobutane Sulfonate	375-73-5	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route	--	--	--	--	3.9E+02	1.2E+02	1.2E+02	DTSC
Phosphorus, White	7723-14-0	--	--	--	--	2.0E-05	IRIS	8.0E-02	Route	--	--	--	--	4.0E-01	1.2E-01	1.2E-01	DTSC
Phthalates																	
~Dimethylterephthalate	120-61-6	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route	--	--	--	--	1.9E+03	5.8E+02	5.8E+02	DTSC
Polychlorinated Biphenyls (PCBs)																	
~Aroclor 1016	12674-11-2	7.0E-02	IRIS (PCB mixture; lowest risk)	2.0E-05	IRIS (PCB mixture; lowest risk SFo)	7.0E-05	IRIS	2.8E-01	Route	2.2E-01	2.2E-01	2.2E-01	USEPA	1.4E+00	4.1E-01	4.1E-01	DTSC
~Aroclor 1254	11097-69-1	2.0E+00	IRIS (PCB mixture; high risk)	5.7E-04	IRIS (PCB mixture; high risk SFo)	2.0E-05	IRIS	8.0E-02	Route	7.9E-03	7.9E-03	7.9E-03	USEPA	4.0E-01	1.2E-01	1.2E-01	DTSC
~Aroclor 5460	11126-42-4	--	--	--	--	6.0E-04	Screening PPRTV	2.4E+00	Route	--	--	--	--	1.2E+01	3.5E+00	3.5E+00	DTSC
Polynuclear Aromatic Hydrocarbons (PAHs)																	
~Benzo[k]fluoranthene	207-08-9	1.2E+00	OEHHA	1.1E-04	OEHHA	--	--	--	--	3.4E-01	2.1E-02	2.1E-02	DTSC	--	--	--	--
Propargyl Alcohol	107-19-7	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route	--	--	--	--	4.0E+01	1.2E+01	1.2E+01	DTSC
Propylene Glycol Monoethyl Ether	1569-02-4	--	--	--	--	7.0E-01	HEAST	2.8E+03	Route	--	--	--	--	1.4E+04	4.1E+03	4.1E+03	DTSC
Pyridine	110-86-1	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route	--	--	--	--	2.0E+01	5.9E+00	5.9E+00	DTSC
Tetrachloroethane, 1,1,2,2-	79-34-5	2.7E-01	OEHHA	5.8E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route	7.6E-02	7.0E-02	7.0E-02	DTSC	3.6E+02	1.1E+02	1.1E+02	DTSC

Table B-1. DTSC-Recommended Screening Levels for Tap Water

		Toxicity Factor for Final Screening Value								Screening Levels for Tap Water (µg/L)							
		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration		Cancer Endpoint				Noncancer Endpoint			
Analyte	CAS #	SFo (mg/kg-d)$^{-1}$	Source	IUR (µg/m^3)$^{-1}$	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m^3)	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source	USEPA $RSL_{Combined}$	DTSC-$SL_{Combined}$	Final Value	Source
Tetrachloroethylene	127-18-4	5.4E-01	OEHHA PHG	5.9E-06	OEHHA	6.0E-03	IRIS	3.5E+01	OEHHA	1.1E+01	8.3E-02	8.3E-02	DTSC	4.1E+01	3.8E+01	3.8E+01	DTSC
Thallium Acetate	563-68-8	--	--	--	--	6.0E-06	Screening PPRTV	2.4E-02	Route	--	--	--	--	1.2E-01	3.5E-02	3.5E-02	DTSC
Trichloroethane, 1,1,1-	71-55-6	--	--	--	--	2.0E+00	IRIS	1.0E+03	OEHHA	--	--	--	--	8.0E+03	2.0E+03	2.0E+03	DTSC
Trichlorophenol, 2,4,6-	88-06-2	7.0E-02	OEHHA	2.0E-05	OEHHA	1.0E-03	PPRTV	No Toxicity Value	--	4.0E+00	6.3E-01	6.3E-01	DTSC	1.2E+01	1.2E+01	1.2E+01	USEPA
Trichloropropane, 1,1,2-	598-77-6	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route	--	--	--	--	8.8E+01	2.8E+01	2.8E+01	DTSC
Trichloropropane, 1,2,3-	96-18-4	3.0E+01	IRIS	7.5E-03	Route	4.0E-03	IRIS	3.0E-01	IRIS	7.5E-04	2.0E-04	2.0E-04	DTSC	6.2E-01	6.2E-01	6.2E-01	USEPA
Additional Analytes																	
Chloropropane, 2-	75-29-6	--	--	--	--	No Toxicity Value	--	1.0E+02	DTSC J&E	--	--	--	--	--	2.1E+02	2.1E+02	DTSC
Dichlorobenzene, 1,3-	541-73-1	--	--	--	--	3.0E-02	DTSC J&E	1.2E+02	Route	--	--	--	--	--	1.8E+02	1.8E+02	DTSC
Methylcyclohexane	108-87-2	--	--	--	--	No Toxicity Value	--	6.0E+03	Cyclohexane	--	--	--	--	--	1.3E+04	1.3E+04	DTSC

Table B-2. Screening Levels for Tap Water: Comparison of USEPA RSLs and DTSC-SLs

	USEPA RSL for Tap Water (µg/L)								DTSC-SL for Tapwater (µg/L)							
	Cancer Endpoint				Noncancer Endpoint				Cancer Endpoint				Noncancer Endpoint			
Analyte	RSL_{Ing}	RSL_{D}	RSL_{Inh}	$RSL_{Combined}$	RSL_{Ing}	RSL_{D}	RSL_{Inh}	$RSL_{Combined}$	$DTSC\text{-}SL_{Ing}$	$DTSC\text{-}SL_{D}$	$DTSC\text{-}SL_{Inh}$	$DTSC\text{-}SL_{Combined}$	$DTSC\text{-}SL_{Ing}$	$DTSC\text{-}SL_{D}$	$DTSC\text{-}SL_{Inh}$	$DTSC\text{-}SL_{Combined}$
USEPA RSL Analytes																
Acetophenone	--	--	--	--	2.01E+03	4.61E+04	--	1.92E+03	--	--	--	--	2.01E+03	4.61E+04	8.34E+02	5.82E+02
Acrylamide	5.01E-02	2.26E+01	--	5.00E-02	4.01E+01	2.10E+04	--	4.00E+01	5.57E-03	2.51E+00	--	5.55E-03	4.01E+01	2.10E+04	--	4.00E+01
Acrylonitrile	1.44E-01	1.38E+01	8.26E-02	5.23E-02	8.02E+02	8.87E+04	4.17E+00	4.15E+00	7.79E-02	7.47E+00	1.94E-02	1.55E-02	8.02E+02	8.87E+04	1.04E+01	1.03E+01
Aldrin	4.58E-03	--	1.15E-03	9.17E-04	6.02E-01	--	--	6.02E-01	4.58E-03	--	1.15E-03	9.17E-04	6.02E-01	--	2.50E-01	1.77E-01
Arsenic, Inorganic	5.19E-02	9.33E+00	--	5.17E-02	6.02E+00	1.36E+03	--	5.99E+00	8.20E-03	1.47E+00	--	8.16E-03	7.02E-02	1.59E+01	--	6.99E-02
Benzaldehyde	--	--	--	--	2.01E+03	4.91E+04	--	1.93E+03	--	--	--	--	2.01E+03	4.91E+04	8.34E+02	5.82E+02
Benzene	1.42E+00	9.45E+00	7.20E-01	4.54E-01	8.02E+01	6.06E+02	6.26E+01	3.32E+01	7.79E-01	5.20E+00	1.94E-01	1.51E-01	8.02E+01	6.06E+02	6.26E+00	5.75E+00
Benzenethiol	--	--	--	--	2.01E+01	1.03E+02	--	1.68E+01	--	--	--	--	2.01E+01	1.03E+02	8.34E+00	5.57E+00
Beryllium and compounds	--	--	--	--	4.01E+01	6.36E+01	--	2.46E+01	--	--	--	--	4.01E+00	9.08E+02	--	3.99E+00
Bis(2-chloro-1-methylethyl) ether	1.11E+00	7.94E+00	5.62E-01	3.56E-01	8.02E+02	6.47E+03	--	7.14E+02	1.11E+00	7.94E+00	5.62E-01	3.56E-01	8.02E+02	6.47E+03	3.34E+02	2.27E+02
Bromodichloromethane	1.26E+00	1.78E+01	1.52E-01	1.34E-01	4.01E+02	6.44E+03	--	3.78E+02	5.99E-01	8.50E+00	1.52E-01	1.19E-01	4.01E+02	6.44E+03	1.67E+02	1.16E+02
Bromoform	9.86E+00	1.35E+02	5.10E+00	3.28E+00	4.01E+02	6.20E+03	--	3.77E+02	7.08E+00	9.69E+01	5.10E+00	2.88E+00	4.01E+02	6.20E+03	1.67E+02	1.16E+02
Butanol, N-	--	--	--	--	2.01E+03	9.99E+04	--	1.97E+03	--	--	--	--	2.01E+03	9.99E+04	8.34E+02	5.86E+02
Butylbenzene, n-	--	--	--	--	1.00E+03	--	--	1.00E+03	--	--	--	--	1.00E+03	--	4.17E+02	2.95E+02
Butylbenzene, sec-	--	--	--	--	2.01E+03	--	--	2.01E+03	--	--	--	--	2.01E+03	--	8.34E+02	5.89E+02
Carbon Tetrachloride	1.11E+00	4.15E+00	9.36E-01	4.53E-01	8.02E+01	3.39E+02	2.09E+02	4.95E+01	5.19E-01	1.94E+00	1.34E-01	1.01E-01	8.02E+01	3.39E+02	8.34E+01	3.65E+01
Chloral Hydrate	--	--	--	--	2.01E+03	1.52E+05	--	1.98E+03	--	--	--	--	2.01E+03	1.52E+05	8.34E+02	5.87E+02
Chlordane	2.23E-01	--	5.62E-02	4.48E-02	1.00E+01	--	1.46E+00	1.27E+00	5.99E-02	--	1.65E-02	1.29E-02	1.00E+01	--	1.46E+00	1.27E+00
Chloroacetaldehyde, 2-	2.89E-01	4.38E+01	--	2.87E-01	--	--	--	--	2.89E-01	4.38E+01	8.32E-02	6.45E-02	--	--	--	--
Chloroethanol, 2-	--	--	--	--	4.01E+02	7.65E+04	--	3.99E+02	--	--	--	--	4.01E+02	7.65E+04	1.67E+02	1.18E+02
Chlorophenol, 2-	--	--	--	--	1.00E+02	1.02E+03	--	9.13E+01	--	--	--	--	1.00E+02	1.02E+03	4.17E+01	2.86E+01
Crotonaldehyde, trans-	4.10E-02	2.62E+00	--	4.04E-02	2.01E+01	1.49E+03	--	1.98E+01	4.10E-02	2.62E+00	1.18E-02	9.14E-03	2.01E+01	1.49E+03	8.34E+00	5.87E+00
Cyanides	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Cyanogen	--	--	--	--	2.01E+01	5.10E+03	--	2.00E+01	--	--	--	--	2.01E+01	5.10E+03	8.34E+00	5.89E+00
~Cyanogen Bromide	--	--	--	--	1.80E+03	1.60E+06	--	1.80E+03	--	--	--	--	1.80E+03	1.60E+06	7.51E+02	5.30E+02
~Cyanogen Chloride	--	--	--	--	1.00E+03	5.76E+05	--	1.00E+03	--	--	--	--	1.00E+03	5.76E+05	4.17E+02	2.94E+02
~Thiocyanic Acid	--	--	--	--	4.01E+00	9.08E+02	--	3.99E+00	--	--	--	--	4.01E+00	9.08E+02	1.67E+00	1.18E+00
Cyclohexylamine	--	--	--	--	4.01E+03	9.24E+04	--	3.84E+03	--	--	--	--	4.01E+03	9.24E+04	1.67E+03	1.16E+03
Dibromochloromethane	9.27E-01	1.37E+01	2.08E-01	1.68E-01	4.01E+02	6.72E+03	--	3.78E+02	8.29E-01	1.23E+01	2.08E-01	1.64E-01	4.01E+02	6.72E+03	1.67E+02	1.16E+02
Dibromoethane, 1,2-	3.90E-02	6.86E-01	9.36E-03	7.46E-03	1.80E+02	3.60E+03	1.88E+01	1.69E+01	2.16E-02	3.81E-01	7.91E-02	1.63E-02	1.80E+02	3.60E+03	1.67E+00	1.65E+00
Dichloroethane, 1,1-	1.37E+01	1.76E+02	3.51E+00	2.75E+00	4.01E+03	5.83E+04	--	3.75E+03	1.37E+01	1.76E+02	3.51E+00	2.75E+00	4.01E+03	5.83E+04	1.67E+03	1.16E+03
Dichloroethylene, 1,2-cis-	--	--	--	--	4.01E+01	5.17E+02	--	3.72E+01	--	--	--	--	4.01E+01	5.17E+02	1.67E+01	1.15E+01
Dichloroethylene, 1,2-trans-	--	--	--	--	4.01E+02	3.64E+03	--	3.61E+02	--	--	--	--	4.01E+02	3.64E+03	1.67E+02	1.14E+02
Dichloropropane, 1,3-	--	--	--	--	4.01E+02	4.63E+03	--	3.69E+02	--	--	--	--	4.01E+02	4.63E+03	1.67E+02	1.15E+02
Diethylformamide	--	--	--	--	2.01E+01	4.24E+03	--	2.00E+01	--	--	--	--	2.01E+01	4.24E+03	8.34E+00	5.88E+00
Diisopropyl Methylphosphonate	--	--	--	--	1.60E+03	1.26E+05	--	1.58E+03	--	--	--	--	1.60E+03	1.26E+05	6.67E+02	4.70E+02
Dimethylaniline, N,N-	--	--	--	--	4.01E+01	3.04E+02	--	3.54E+01	--	--	--	--	4.01E+01	3.04E+02	1.67E+01	1.13E+01
Dithiane, 1,4-	--	--	--	--	2.01E+02	1.59E+04	--	1.98E+02	--	--	--	--	2.01E+02	1.59E+04	8.34E+01	5.87E+01
Endosulfan	--	--	--	--	1.20E+02	6.29E+02	--	1.01E+02	--	--	--	--	1.20E+02	6.29E+02	5.01E+01	3.35E+01
Epichlorohydrin	7.87E+00	7.54E+02	4.68E+00	2.92E+00	1.20E+02	1.30E+04	2.09E+00	2.05E+00	9.74E-01	9.33E+01	2.44E-01	1.95E-01	1.20E+02	1.30E+04	6.26E+00	5.95E+00
Ethyl Acrylate	1.62E+00	4.31E+01	--	1.56E+00	1.00E+02	3.01E+03	1.67E+01	1.42E+01	1.62E+00	4.31E+01	4.68E-01	3.60E-01	1.00E+02	3.01E+03	1.67E+01	1.42E+01
Ethyl Chloride (Chloroethane)	--	--	--	--	--	--	2.09E+04	2.09E+04	1.66E+01	--	4.78E+00	3.71E+00	--	--	6.26E+04	6.26E+04
Ethyl Ether	--	--	--	--	4.01E+03	1.97E+05	--	3.93E+03	--	--	--	--	4.01E+03	1.97E+05	1.67E+03	1.17E+03
Ethylene Diamine	--	--	--	--	1.80E+03	--	--	1.80E+03	--	--	--	--	1.80E+03	--	7.51E+02	5.30E+02
Furans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Furan	--	--	--	--	2.01E+01	4.75E+02	--	1.92E+01	--	--	--	--	2.01E+01	4.75E+02	8.34E+00	5.82E+00
Guanidine	--	--	--	--	2.01E+02	4.22E+05	--	2.00E+02	--	--	--	--	2.01E+02	4.22E+05	8.34E+01	5.89E+01
Hexabromobenzene	--	--	--	--	4.01E+01	--	--	4.01E+01	--	--	--	--	4.01E+01	--	1.67E+01	1.18E+01
Hexachlorobenzene	4.87E-02	--	1.22E-02	9.76E-03	1.60E+01	--	--	1.60E+01	4.33E-02	--	1.10E-02	8.78E-03	1.60E+01	--	6.67E+00	4.71E+00
Isobutyl Alcohol	--	--	--	--	6.02E+03	3.60E+05	--	5.92E+03	--	--	--	--	6.02E+03	3.60E+05	2.50E+03	1.76E+03
Lead Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Lead subacetate	9.17E+00	--	--	9.17E+00	--	--	--	--	2.05E+00	--	--	2.05E+00	--	--	--	--
Mercury Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Merphos	--	--	--	--	6.02E-01	--	--	6.02E-01	--	--	--	--	6.02E-01	--	2.50E-01	1.77E-01
Methyl Acetate	--	--	--	--	2.01E+04	2.92E+06	--	1.99E+04	--	--	--	--	2.01E+04	2.92E+06	8.34E+03	5.88E+03
Methylene Chloride	1.25E+01	3.38E+02	2.03E+02	1.14E+01	1.20E+02	3.65E+03	1.25E+03	1.07E+02	1.79E+00	4.82E+01	2.03E+00	9.32E-01	1.20E+02	3.65E+03	8.34E+02	1.02E+02
Methylene-bis(2-chloroaniline), 4,4'-	2.51E-01	4.17E-01	--	1.56E-01	4.01E+01	7.51E+01	--	2.61E+01	1.67E-02	2.78E-02	--	1.04E-02	4.01E+01	7.51E+01	--	2.61E+01
Mineral oils	--	--	--	--	6.02E+04	--	--	6.02E+04	--	--	--	--	6.02E+04	--	2.50E+04	1.77E+04
Mirex	4.33E-03	--	1.10E-03	8.78E-04	4.01E+00	--	--	4.01E+00	4.33E-03	--	1.10E-03	8.78E-04	4.01E+00	--	1.67E+00	1.18E+00
Naled	--	--	--	--	4.01E+01	6.77E+03	--	3.99E+01	--	--	--	--	4.01E+01	6.77E+03	1.67E+01	1.18E+01
Nitrotoluene, o-	3.54E-01	2.67E+00	--	3.13E-01	1.80E+01	1.54E+02	--	1.62E+01	3.54E-01	2.67E+00	1.02E-01	7.70E-02	1.80E+01	1.54E+02	7.51E+00	5.13E+00
Pentachloroethane	8.66E-01	2.43E+00	--	6.39E-01	--	--	--	--	8.66E-01	2.43E+00	2.50E-01	1.79E-01	--	--	--	--
Perfluorobutane Sulfonate	--	--	--	--	4.01E+02	2.06E+04	--	3.93E+02	--	--	--	--	4.01E+02	2.06E+04	1.67E+02	1.17E+02
Phosphorus, White	--	--	--	--	4.01E-01	9.08E+01	--	3.99E-01	--	--	--	--	4.01E-01	9.08E+01	1.67E-01	1.18E-01
Phthalates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Dimethylterephthalate	--	--	--	--	2.01E+03	2.67E+04	--	1.87E+03	--	--	--	--	2.01E+03	2.67E+04	8.34E+02	5.76E+02

Table B-2. Screening Levels for Tap Water: Comparison of USEPA RSLs and DTSC-SLs

	USEPA RSL for Tap Water (µg/L)								DTSC-SL for Tapwater (µg/L)							
	Cancer Endpoint				Noncancer Endpoint				Cancer Endpoint				Noncancer Endpoint			
Analyte	**RSL_{Ing}**	**RSL_{D}**	**RSL_{Inh}**	**$RSL_{Combined}$**	**RSL_{Ing}**	**RSL_{D}**	**RSL_{Inh}**	**$RSL_{Combined}$**	**$DTSC\text{-}SL_{Ing}$**	**$DTSC\text{-}SL_{D}$**	**$DTSC\text{-}SL_{Inh}$**	**$DTSC\text{-}SL_{Combined}$**	**$DTSC\text{-}SL_{Ing}$**	**$DTSC\text{-}SL_{D}$**	**$DTSC\text{-}SL_{Inh}$**	**$DTSC\text{-}SL_{Combined}$**
Polychlorinated Biphenyls (PCBs)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Aroclor 1016	1.11E+00	--	2.81E-01	2.24E-01	1.40E+00	--	--	1.40E+00	1.11E+00	--	2.81E-01	2.24E-01	1.40E+00	--	5.84E-01	4.12E-01
~Aroclor 1254	3.90E-02	--	9.85E-03	7.86E-03	4.01E-01	--	--	4.01E-01	3.90E-02	--	9.85E-03	7.86E-03	4.01E-01	--	1.67E-01	1.18E-01
~Aroclor 5460	--	--	--	--	1.20E+01	--	--	1.20E+01	--	--	--	--	1.20E+01	--	5.01E+00	3.54E+00
Polynuclear Aromatic Hydrocarbons (PAHs)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Benzo[k]fluoranthene	3.43E-01	--	--	3.43E-01	--	--	--	--	2.09E-02	--	--	2.09E-02	--	--	--	--
Propargyl Alcohol	--	--	--	--	4.01E+01	1.19E+04	--	4.00E+01	--	--	--	--	4.01E+01	1.19E+04	1.67E+01	1.18E+01
Propylene Glycol Monoethyl Ether	--	--	--	--	1.40E+04	3.26E+06	--	1.40E+04	--	--	--	--	1.40E+04	3.26E+06	5.84E+03	4.12E+03
Pyridine	--	--	--	--	2.01E+01	1.47E+03	--	1.98E+01	--	--	--	--	2.01E+01	1.47E+03	8.34E+00	5.87E+00
Tetrachloroethane, 1,1,2,2-	3.90E-01	3.12E+00	9.68E-02	7.57E-02	4.01E+02	3.64E+03	--	3.61E+02	2.89E-01	2.31E+00	9.68E-02	7.03E-02	4.01E+02	3.64E+03	1.67E+02	1.14E+02
Tetrachloroethylene	3.71E+01	6.26E+01	2.16E+01	1.12E+01	1.20E+02	2.30E+02	8.34E+01	4.06E+01	1.44E-01	2.43E-01	9.52E-01	8.27E-02	1.20E+02	2.30E+02	7.30E+01	3.79E+01
Thallium Acetate	--	--	--	--	1.20E-01	1.02E+02	--	1.20E-01	--	--	--	--	1.20E-01	1.02E+02	5.01E-02	3.53E-02
Trichloroethane, 1,1,1-	--	--	--	--	4.01E+04	2.50E+05	1.04E+04	8.01E+03	--	--	--	--	4.01E+04	2.50E+05	2.09E+03	1.97E+03
Trichlorophenol, 2,4,6-	7.08E+00	9.40E+00	--	4.04E+00	2.01E+01	3.01E+01	--	1.20E+01	1.11E+00	1.48E+00	--	6.35E-01	2.01E+01	3.01E+01	--	1.20E+01
Trichloropropane, 1,1,2-	--	--	--	--	1.00E+02	7.49E+02	--	8.84E+01	--	--	--	--	1.00E+02	7.49E+02	4.17E+01	2.83E+01
Trichloropropane, 1,2,3-	8.35E-04	7.08E-03	--	7.47E-04	8.02E+01	7.66E+02	6.26E-01	6.20E-01	8.35E-04	7.08E-03	2.70E-04	1.99E-04	8.02E+01	7.66E+02	6.26E-01	6.20E-01
Additional Analytes																
Chloropropane, 2-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.09E+02	2.09E+02
Dichlorobenzene, 1,3-	--	--	--	--	--	--	--	--	--	--	--	--	6.02E+02	--	2.50E+02	1.77E+02
Methylcyclohexane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.25E+04	1.25E+04

Table B-3. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Tap Water via Ingestion

Definitions	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion Factor, ingestion exposure	CF_o	1.0E+03	1.0E+03	mg/µg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Fraction Contaminated Water Ingested, resident	FI_r	1.0	1.0	unitless
Water Ingestion Rate, adult	IRW_a	2.5	2.5	L/day
Water Ingestion Rate, child	IRW_c	0.78	0.78	L/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose	RfD_O	derived herein		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	chemical-specific		µg/L
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_{nc,c} \times 365\ day/year \times CF_O}{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times FI_r}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times EF_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times IRW_c}{BW_c} + \frac{ED_a \times EF_r \times IRW_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times EF_r \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{\left(\frac{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times \frac{1}{CF_o}}{AT_c \times 365\frac{day}{year}} + \frac{SF_o \times IRW_c \times \frac{1}{CF_o}}{BW_c}\right)}$$

Noncancer Hazard:

$$(R)SL_{ing} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\ day/year \times CF_O}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRW_c \times FI_r}$$

		Residential USEPA RSL_{ing}				Residential DTSC-SL_{ing}			
		SF_O	**Cancer**	**RfD_O**	**Noncancer**	**SF_O**	**Cancer**	**RfD_O**	**Noncancer**
Analyte	**Mutagen?**	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)
USEPA RSL Analytes									
Acetophenone		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03
Acrylamide	M	5.00E-01	5.01E-02	2.00E-03	4.01E+01	4.50E+00	5.57E-03	2.00E-03	4.01E+01
Acrylonitrile		5.40E-01	1.44E-01	4.00E-02	8.02E+02	1.00E+00	7.79E-02	4.00E-02	8.02E+02
Aldrin		1.70E+01	4.58E-03	3.00E-05	6.02E-01	1.70E+01	4.58E-03	3.00E-05	6.02E-01
Arsenic, Inorganic		1.50E+00	5.19E-02	3.00E-04	6.02E+00	9.50E+00	8.20E-03	3.50E-06	7.02E-02
Benzaldehyde		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03
Benzene		5.50E-02	1.42E+00	4.00E-03	8.02E+01	1.00E-01	7.79E-01	4.00E-03	8.02E+01
Benzenethiol		--	--	1.00E-03	2.01E+01	--	--	1.00E-03	2.01E+01
Beryllium and compounds		--	--	2.00E-03	4.01E+01	--	--	2.00E-04	4.01E+00
Bis(2-chloro-1-methylethyl) ether		7.00E-02	1.11E+00	4.00E-02	8.02E+02	7.00E-02	1.11E+00	4.00E-02	8.02E+02
Bromodichloromethane		6.20E-02	1.26E+00	2.00E-02	4.01E+02	1.30E-01	5.99E-01	2.00E-02	4.01E+02
Bromoform		7.90E-03	9.86E+00	2.00E-02	4.01E+02	1.10E-02	7.08E+00	2.00E-02	4.01E+02
Butanol, N-		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03
Butylbenzene, n-		--	--	5.00E-02	1.00E+03	--	--	5.00E-02	1.00E+03
Butylbenzene, sec-		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03
Carbon Tetrachloride		7.00E-02	1.11E+00	4.00E-03	8.02E+01	1.50E-01	5.19E-01	4.00E-03	8.02E+01
Chloral Hydrate		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03

Table B-3. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Tap Water via Ingestion

Definitions	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion Factor, ingestion exposure	CF_o	1.0E+03	1.0E+03	mg/µg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Fraction Contaminated Water Ingested, resident	FI_r	1.0	1.0	unitless
Water Ingestion Rate, adult	IRW_a	2.5	2.5	L/day
Water Ingestion Rate, child	IRW_c	0.78	0.78	L/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose	RfD_O	derived herein		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	chemical-specific		µg/L
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_{nc,c} \times 365\ day/year \times CF_O}{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times FI_r}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times EF_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times IRW_c}{BW_c} + \frac{ED_a \times EF_r \times IRW_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times EF_r \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{\left(\frac{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times \frac{1}{CF_o}}{AT_c \times 365\frac{day}{year}} + \frac{SF_o \times IRW_c \times \frac{1}{CF_o}}{BW_c}\right)}$$

Noncancer Hazard:

$$(R)SL_{ing} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\ day/year \times CF_O}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRW_c \times FI_r}$$

		Residential USEPA RSL_{ing}				Residential DTSC-SL_{ing}			
		SF_O	**Cancer**	**RfD_O**	**Noncancer**	**SF_O**	**Cancer**	**RfD_O**	**Noncancer**
Analyte	**Mutagen?**	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)
Chlordane		3.50E-01	2.23E-01	5.00E-04	1.00E+01	1.30E+00	5.99E-02	5.00E-04	1.00E+01
Chloroacetaldehyde, 2-		2.70E-01	2.89E-01	--	--	2.70E-01	2.89E-01	--	--
Chloroethanol, 2-		--	--	2.00E-02	4.01E+02	--	--	2.00E-02	4.01E+02
Chlorophenol, 2-		--	--	5.00E-03	1.00E+02	--	--	5.00E-03	1.00E+02
Crotonaldehyde, trans-		1.90E+00	4.10E-02	1.00E-03	2.01E+01	1.90E+00	4.10E-02	1.00E-03	2.01E+01
Cyanides		--	--	--	--	--	--	--	--
~Cyanogen		--	--	1.00E-03	2.01E+01	--	--	1.00E-03	2.01E+01
~Cyanogen Bromide		--	--	9.00E-02	1.80E+03	--	--	9.00E-02	1.80E+03
~Cyanogen Chloride		--	--	5.00E-02	1.00E+03	--	--	5.00E-02	1.00E+03
~Thiocyanic Acid		--	--	2.00E-04	4.01E+00	--	--	2.00E-04	4.01E+00
Cyclohexylamine		--	--	2.00E-01	4.01E+03	--	--	2.00E-01	4.01E+03
Dibromochloromethane		8.40E-02	9.27E-01	2.00E-02	4.01E+02	9.40E-02	8.29E-01	2.00E-02	4.01E+02
Dibromoethane, 1,2-		2.00E+00	3.90E-02	9.00E-03	1.80E+02	3.60E+00	2.16E-02	9.00E-03	1.80E+02
Dichloroethane, 1,1-		5.70E-03	1.37E+01	2.00E-01	4.01E+03	5.70E-03	1.37E+01	2.00E-01	4.01E+03
Dichloroethylene, 1,2-cis-		--	--	2.00E-03	4.01E+01	--	--	2.00E-03	4.01E+01
Dichloroethylene, 1,2-trans-		--	--	2.00E-02	4.01E+02	--	--	2.00E-02	4.01E+02
Dichloropropane, 1,3-		--	--	2.00E-02	4.01E+02	--	--	2.00E-02	4.01E+02
Diethylformamide		--	--	1.00E-03	2.01E+01	--	--	1.00E-03	2.01E+01

Table B-3. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Tap Water via Ingestion

Definitions	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion Factor, ingestion exposure	CF_o	1.0E+03	1.0E+03	mg/µg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Fraction Contaminated Water Ingested, resident	FI_r	1.0	1.0	unitless
Water Ingestion Rate, adult	IRW_a	2.5	2.5	L/day
Water Ingestion Rate, child	IRW_c	0.78	0.78	L/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose	RfD_O	derived herein		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	chemical-specific		µg/L
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_{nc,c} \times 365\ day/year \times CF_O}{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times FI_r}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times EF_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times IRW_c}{BW_c} + \frac{ED_a \times EF_r \times IRW_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times EF_r \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{\left(\frac{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times \frac{1}{CF_o}}{AT_c \times 365\frac{day}{year}} + \frac{SF_o \times IRW_c \times \frac{1}{CF_o}}{BW_c}\right)}$$

Noncancer Hazard:

$$(R)SL_{ing} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\ day/year \times CF_O}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRW_c \times FI_r}$$

		Residential USEPA RSL_{ing}				Residential DTSC-SL_{ing}			
		SF_O	**Cancer**	**RfD_O**	**Noncancer**	**SF_O**	**Cancer**	**RfD_O**	**Noncancer**
Analyte	**Mutagen?**	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)
Diisopropyl Methylphosphonate		--	--	8.00E-02	1.60E+03	--	--	8.00E-02	1.60E+03
Dimethylaniline, N,N-		--	--	2.00E-03	4.01E+01	--	--	2.00E-03	4.01E+01
Dithiane, 1,4-		--	--	1.00E-02	2.01E+02	--	--	1.00E-02	2.01E+02
Endosulfan		--	--	6.00E-03	1.20E+02	--	--	6.00E-03	1.20E+02
Epichlorohydrin		9.90E-03	7.87E+00	6.00E-03	1.20E+02	8.00E-02	9.74E-01	6.00E-03	1.20E+02
Ethyl Acrylate		4.80E-02	1.62E+00	5.00E-03	1.00E+02	4.80E-02	1.62E+00	5.00E-03	1.00E+02
Ethyl Chloride (Chloroethane)		--	--	--	--	4.70E-03	1.66E+01	--	--
Ethyl Ether		--	--	2.00E-01	4.01E+03	--	--	2.00E-01	4.01E+03
Ethylene Diamine		--	--	9.00E-02	1.80E+03	--	--	9.00E-02	1.80E+03
Furans		--	--	--	--	--	--	--	--
~Furan		--	--	1.00E-03	2.01E+01	--	--	1.00E-03	2.01E+01
Guanidine		--	--	1.00E-02	2.01E+02	--	--	1.00E-02	2.01E+02
Hexabromobenzene		--	--	2.00E-03	4.01E+01	--	--	2.00E-03	4.01E+01
Hexachlorobenzene		1.60E+00	4.87E-02	8.00E-04	1.60E+01	1.80E+00	4.33E-02	8.00E-04	1.60E+01
Isobutyl Alcohol		--	--	3.00E-01	6.02E+03	--	--	3.00E-01	6.02E+03
Lead Compounds		--	--	--	--	--	--	--	--
~Lead subacetate		8.50E-03	9.17E+00	--	--	3.80E-02	2.05E+00	--	--
Merphos		--	--	3.00E-05	6.02E-01	--	--	3.00E-05	6.02E-01

Table B-3. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Tap Water via Ingestion

Definitions	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion Factor, ingestion exposure	CF_o	1.0E+03	1.0E+03	mg/µg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Fraction Contaminated Water Ingested, resident	FI_r	1.0	1.0	unitless
Water Ingestion Rate, adult	IRW_a	2.5	2.5	L/day
Water Ingestion Rate, child	IRW_c	0.78	0.78	L/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose	RfD_O	derived herein		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	chemical-specific		µg/L
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_{nc,c} \times 365\ day/year \times CF_O}{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times FI_r}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times EF_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times IRW_c}{BW_c} + \frac{ED_a \times EF_r \times IRW_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times EF_r \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{\left(\frac{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times \frac{1}{CF_o}}{AT_c \times 365\frac{day}{year}} + \frac{SF_o \times IRW_c \times \frac{1}{CF_o}}{BW_c}\right)}$$

Noncancer Hazard:

$$(R)SL_{ing} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\ day/year \times CF_O}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRW_c \times FI_r}$$

		Residential USEPA RSL_{ing}				Residential DTSC-SL_{ing}			
		SF_O	**Cancer**	**RfD_O**	**Noncancer**	**SF_O**	**Cancer**	**RfD_O**	**Noncancer**
Analyte	**Mutagen?**	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)
Methyl Acetate		--	--	1.00E+00	2.01E+04	--	--	1.00E+00	2.01E+04
Methylene Chloride	M	2.00E-03	1.25E+01	6.00E-03	1.20E+02	1.40E-02	1.79E+00	6.00E-03	1.20E+02
Methylene-bis(2-chloroaniline), 4,4'-	M	1.00E-01	2.51E-01	2.00E-03	4.01E+01	1.50E+00	1.67E-02	2.00E-03	4.01E+01
Mineral oils		--	--	3.00E+00	6.02E+04	--	--	3.00E+00	6.02E+04
Mirex		1.80E+01	4.33E-03	2.00E-04	4.01E+00	1.80E+01	4.33E-03	2.00E-04	4.01E+00
Naled		--	--	2.00E-03	4.01E+01	--	--	2.00E-03	4.01E+01
Nitrotoluene, o-		2.20E-01	3.54E-01	9.00E-04	1.80E+01	2.20E-01	3.54E-01	9.00E-04	1.80E+01
Pentachloroethane		9.00E-02	8.66E-01	--	--	9.00E-02	8.66E-01	--	--
Perfluorobutane Sulfonate		--	--	2.00E-02	4.01E+02	--	--	2.00E-02	4.01E+02
Phosphorus, White		--	--	2.00E-05	4.01E-01	--	--	2.00E-05	4.01E-01
Phthalates		--	--	--	--	--	--	--	--
~Dimethylterephthalate		--	--	1.00E-01	2.01E+03	--	--	1.00E-01	2.01E+03
Polychlorinated Biphenyls (PCBs)		--	--	--	--	--	--	--	--
~Aroclor 1016		7.00E-02	1.11E+00	7.00E-05	1.40E+00	7.00E-02	1.11E+00	7.00E-05	1.40E+00
~Aroclor 1254		2.00E+00	3.90E-02	2.00E-05	4.01E-01	2.00E+00	3.90E-02	2.00E-05	4.01E-01
~Aroclor 5460		--	--	6.00E-04	1.20E+01	--	--	6.00E-04	1.20E+01

Table B-3. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed to Tap Water via Ingestion

Definitions	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion Factor, ingestion exposure	CF_o	1.0E+03	1.0E+03	mg/µg
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Fraction Contaminated Water Ingested, resident	FI_r	1.0	1.0	unitless
Water Ingestion Rate, adult	IRW_a	2.5	2.5	L/day
Water Ingestion Rate, child	IRW_c	0.78	0.78	L/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose	RfD_O	derived herein		mg/kg-day
(Regional) Screening Level, ingestion	$(R)SL_{ing}$	chemical-specific		µg/L
Oral Slope Factor	SF_O	chemical-specific		$(mg/kg\text{-}day)^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$(R)SL_{ing} = \frac{TR \times AT_{nc,c} \times 365\ day/year \times CF_O}{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times FI_r}$$

Mutagens:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times EF_r \times \left(\begin{array}{c}\frac{ED_{0-2} \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$(R)SL_{ing} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_o}{SF_o \times \left\{\left[CAF_O \times \left(\frac{ED_c \times EF_r \times IRW_c}{BW_c} + \frac{ED_a \times EF_r \times IRW_a}{BW_a}\right)\right] + \left[MAF_O \times \left(\begin{array}{c}\frac{ED_{0-2} \times EF_r \times IRW_c \times ADAF_{0-2}}{BW_c} + \frac{ED_{2-6} \times EF_r \times IR_c \times ADAF_{2-6}}{BW_c} \\ + \frac{ED_{6-16} \times EF_r \times IRW_a \times ADAF_{6-16}}{BW_a} + \frac{ED_{16-26} \times EF_r \times IR_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$(R)SL_{ing} = \frac{TR}{\left(\frac{SF_o \times EF_r \times \left(\frac{ED_c \times IRW_c}{BW_c} + \frac{ED_a \times IRW_a}{BW_a}\right) \times \frac{1}{CF_o}}{AT_c \times 365\frac{day}{year}} + \frac{SF_o \times IRW_c \times \frac{1}{CF_o}}{BW_c}\right)}$$

Noncancer Hazard:

$$(R)SL_{ing} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\ day/year \times CF_O}{EF_r \times ED_c \times \frac{1}{RfD_o} \times IRW_c \times FI_r}$$

		Residential USEPA RSL_{ing}				Residential DTSC-SL_{ing}			
		SF_O	**Cancer**	**RfD_O**	**Noncancer**	**SF_O**	**Cancer**	**RfD_O**	**Noncancer**
Analyte	**Mutagen?**	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)	$(mg/kg\text{-}day)^{-1}$	(µg/L)	(mg/kg-day)	(µg/L)
Polynuclear Aromatic Hydrocarbons (PAHs)		--	--	--	--	--	--	--	--
~Benzo[k]fluoranthene	M	7.30E-02	3.43E-01	--	--	1.20E+00	2.09E-02	--	--
Propargyl Alcohol		--	--	2.00E-03	4.01E+01	--	--	2.00E-03	4.01E+01
Propylene Glycol Monoethyl Ether		--	--	7.00E-01	1.40E+04	--	--	7.00E-01	1.40E+04
Pyridine		--	--	1.00E-03	2.01E+01	--	--	1.00E-03	2.01E+01
Tetrachloroethane, 1,1,2,2-		2.00E-01	3.90E-01	2.00E-02	4.01E+02	2.70E-01	2.89E-01	2.00E-02	4.01E+02
Tetrachloroethylene		2.10E-03	3.71E+01	6.00E-03	1.20E+02	5.40E-01	1.44E-01	6.00E-03	1.20E+02
Thallium Acetate		--	--	6.00E-06	1.20E-01	--	--	6.00E-06	1.20E-01
Trichloroethane, 1,1,1-		--	--	2.00E+00	4.01E+04	--	--	2.00E+00	4.01E+04
Trichlorophenol, 2,4,6-		1.10E-02	7.08E+00	1.00E-03	2.01E+01	7.00E-02	1.11E+00	1.00E-03	2.01E+01
Trichloropropane, 1,1,2-		--	--	5.00E-03	1.00E+02	--	--	5.00E-03	1.00E+02
Trichloropropane, 1,2,3-	M	3.00E+01	8.35E-04	4.00E-03	8.02E+01	3.00E+01	8.35E-04	4.00E-03	8.02E+01
Additional Analytes									
Chloropropane, 2-		--	--	--	--	--	--	--	--
Dichlorobenzene, 1,3-		--	--	--	--	--	--	3.00E-02	6.02E+02
Methylcyclohexane		--	--	--	--	--	--	--	--

Table B-4. Derivation of Dermally-Absorbed Dose per Event: Domestic Use of Water -- Residential Scenario

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion factor, dermal	CF_{d1}	1000	1000	µg/mg
COPC Absorbed Dose per Event	DA_{event}	chemical and receptor-specific		µg/cm^2-event
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		(mg/kg-day)
Exposed Body Surface Area, adult	SA_a	20900	20900	cm^2
Exposed Body Surface Area, child	SA_c	6378	6378	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_D	chemical-specific		(mg/kg-day)$^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$DA_{event,(carcinogen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}$$

Mutagens:

$$DA_{event,(mutagen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times EF_r \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$DA_{event,(trichloroethene)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times \left\{\left[CAF_O \times \left(\frac{EV_r \times ED_c \times EF_r \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times EF_r \times SA_a}{BW_z}\right)\right] + \left[MAF_O \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times EF_r \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times EF_r \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times EF_r \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times EF_r \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$DA_{event,(vinyl\ chloride)} = \frac{TR}{\left(\frac{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}{AT_c \times 365\frac{day}{year} \times CF_{d1}} + \frac{SF_D \times EV_r \times SA_c}{BW_c \times CF_{d1}}\right)}$$

Noncancer:

$$DA_{event,(child,noncarcinogen)} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times ED_c \times EF_r \times SA_c}$$

DTSC Cadmium noncancer:

$$DA_{event,(Cd,noncarcinogen)} = \frac{THQ \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times EF_r \times \left(\frac{ED_c \times SA_c}{BW_c \times AT_{nc,c}} + \frac{ED_a \times SA_a}{BW_a \times AT_{nc,a}}\right)}$$

		USEPA								DTSC-Modified							
Analyte	**Mutagen?**	**GI Absorption** (*dimensionless*)	**SF_D** (*mg/kg-day*)$^{-1}$	**RfD_d** (*mg/kg-day*)	**$DA_{event(child, noncarcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, carcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, mutagen)}$** (µg/cm^2-*event*)	**$DA_{event,(adult, trichloroethene)}$** (µg/cm^2-*event*)	**$DA_{event(adult, vinyl chloride)}$** (µg/cm^2-*event*)	**GI Absorption** (*dimensionless*)	**SF_D** (*mg/kg-day*)$^{-1}$	**RfD_d** (*mg/kg-day*)	**$DA_{event(child, noncarcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, carcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, mutagen)}$** (µg/cm^2-*event*)	**$DA_{event,(adult, trichloroethene)}$** (µg/cm^2-*event*)	**$DA_{event(adult, vinyl chloride)}$** (µg/cm^2-*event*)
USEPA RSL Analytes																	
Acetophenone		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Acrylamide	M	1.00E+00	5.00E-01	2.00E-03	4.91E-03	--	6.07E-06	--	--	1.00E+00	4.50E+00	2.00E-03	4.91E-03	--	6.74E-07	--	--
Acrylonitrile		1.00E+00	5.40E-01	4.00E-02	9.81E-02	1.74E-05	--	--	--	1.00E+00	1.00E+00	4.00E-02	9.81E-02	9.39E-06	--	--	--
Aldrin		1.00E+00	1.70E+01	3.00E-05	7.36E-05	5.52E-07	--	--	--	1.00E+00	1.70E+01	3.00E-05	7.36E-05	5.52E-07	--	--	--
Arsenic, Inorganic		1.00E+00	1.50E+00	3.00E-04	7.36E-04	6.26E-06	--	--	--	1.00E+00	9.50E+00	3.50E-06	8.58E-06	9.88E-07	--	--	--
Benzaldehyde		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Benzene		1.00E+00	5.50E-02	4.00E-03	9.81E-03	1.71E-04	--	--	--	1.00E+00	1.00E-01	4.00E-03	9.81E-03	9.39E-05	--	--	--
Benzenethiol		1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--	1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--
Beryllium and compounds		7.00E-03	--	1.40E-05	3.43E-05	--	--	--	--	1.00E+00	--	2.00E-04	4.91E-04	--	--	--	--
Bis(2-chloro-1-methylethyl) ether		1.00E+00	7.00E-02	4.00E-02	9.81E-02	1.34E-04	--	--	--	1.00E+00	7.00E-02	4.00E-02	9.81E-02	1.34E-04	--	--	--
Bromodichloromethane		1.00E+00	6.20E-02	2.00E-02	4.91E-02	1.51E-04	--	--	--	1.00E+00	1.30E-01	2.00E-02	4.91E-02	7.22E-05	--	--	--
Bromoform		1.00E+00	7.90E-03	2.00E-02	4.91E-02	1.19E-03	--	--	--	1.00E+00	1.10E-02	2.00E-02	4.91E-02	8.53E-04	--	--	--
Butanol, N-		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Butylbenzene, n-		1.00E+00	--	5.00E-02	1.23E-01	--	--	--	--	1.00E+00	--	5.00E-02	1.23E-01	--	--	--	--
Butylbenzene, sec-		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Carbon Tetrachloride		1.00E+00	7.00E-02	4.00E-03	9.81E-03	1.34E-04	--	--	--	1.00E+00	1.50E-01	4.00E-03	9.81E-03	6.26E-05	--	--	--
Chloral Hydrate		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Chlordane		1.00E+00	3.50E-01	5.00E-04	1.23E-03	2.68E-05	--	--	--	1.00E+00	1.30E+00	5.00E-04	1.23E-03	7.22E-06	--	--	--
Chloroacetaldehyde, 2-		1.00E+00	2.70E-01	--	--	3.48E-05	--	--	--	1.00E+00	2.70E-01	--	--	3.48E-05	--	--	--
Chloroethanol, 2-		1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--	1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--
Chlorophenol, 2-		1.00E+00	--	5.00E-03	1.23E-02	--	--	--	--	1.00E+00	--	5.00E-03	1.23E-02	--	--	--	--
Crotonaldehyde, trans-		1.00E+00	1.90E+00	1.00E-03	2.45E-03	4.94E-06	--	--	--	1.00E+00	1.90E+00	1.00E-03	2.45E-03	4.94E-06	--	--	--
Cyanides		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Cyanogen		1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--	1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--
~Cyanogen Bromide		1.00E+00	--	9.00E-02	2.21E-01	--	--	--	--	1.00E+00	--	9.00E-02	2.21E-01	--	--	--	--
~Cyanogen Chloride		1.00E+00	--	5.00E-02	1.23E-01	--	--	--	--	1.00E+00	--	5.00E-02	1.23E-01	--	--	--	--
~Thiocyanic Acid		1.00E+00	--	2.00E-04	4.91E-04	--	--	--	--	1.00E+00	--	2.00E-04	4.91E-04	--	--	--	--
Cyclohexylamine		1.00E+00	--	2.00E-01	4.91E-01	--	--	--	--	1.00E+00	--	2.00E-01	4.91E-01	--	--	--	--
Dibromochloromethane		1.00E+00	8.40E-02	2.00E-02	4.91E-02	1.12E-04	--	--	--	1.00E+00	9.40E-02	2.00E-02	4.91E-02	9.99E-05	--	--	--
Dibromoethane, 1,2-		1.00E+00	2.00E+00	9.00E-03	2.21E-02	4.69E-06	--	--	--	1.00E+00	3.60E+00	9.00E-03	2.21E-02	2.61E-06	--	--	--
Dichloroethane, 1,1-		1.00E+00	5.70E-03	2.00E-01	4.91E-01	1.65E-03	--	--	--	1.00E+00	5.70E-03	2.00E-01	4.91E-01	1.65E-03	--	--	--

Table B-4. Derivation of Dermally-Absorbed Dose per Event: Domestic Use of Water -- Residential Scenario

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion factor, dermal	CF_{d1}	1000	1000	µg/mg
COPC Absorbed Dose per Event	DA_{event}	chemical and receptor-specific		µg/cm^2-event
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		(mg/kg-day)
Exposed Body Surface Area, adult	SA_a	20900	20900	cm^2
Exposed Body Surface Area, child	SA_c	6378	6378	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_D	chemical-specific		(mg/kg-day)$^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$DA_{event,(carcinogen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}$$

Mutagens:

$$DA_{event,(mutagen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times EF_r \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$DA_{event,(trichloroethene)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times \left\{\left[CAF_O \times \left(\frac{EV_r \times ED_c \times EF_r \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times EF_r \times SA_a}{BW_z}\right)\right] + \left[MAF_O \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times EF_r \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times EF_r \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times EF_r \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times EF_r \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$DA_{event,(vinyl\ chloride)} = \frac{TR}{\left(\frac{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}{AT_c \times 365\frac{day}{year} \times CF_{d1}} + \frac{SF_D \times EV_r \times SA_c}{BW_c \times CF_{d1}}\right)}$$

Noncancer:

$$DA_{event,(child,noncarcinogen)} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times ED_c \times EF_r \times SA_c}$$

DTSC Cadmium noncancer:

$$DA_{event,(Cd,noncarcinogen)} = \frac{THQ \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times EF_r \times \left(\frac{ED_c \times SA_c}{BW_c \times AT_{nc,c}} + \frac{ED_a \times SA_a}{BW_a \times AT_{nc,a}}\right)}$$

		USEPA								DTSC-Modified							
Analyte	Mutagen?	GI Absorption (*dimensionless*)	SF_D (*mg/kg-day*)$^{-1}$	RfD_d (*mg/kg-day*)	$DA_{event(child, noncarcinogen)}$ (µg/cm^2-*event*)	$DA_{event(adult, carcinogen)}$ (µg/cm^2-*event*)	$DA_{event(adult, mutagen)}$ (µg/cm^2-*event*)	$DA_{vent,(adult, trichloroethene)}$ (µg/cm^2-*event*)	$DA_{event(adult, vinyl chloride)}$ (µg/cm^2-*event*)	GI Absorption (*dimensionless*)	SF_D (*mg/kg-day*)$^{-1}$	RfD_d (*mg/kg-day*)	$DA_{event(child, noncarcinogen)}$ (µg/cm^2-*event*)	$DA_{event(adult, carcinogen)}$ (µg/cm^2-*event*)	$DA_{event(adult, mutagen)}$ (µg/cm^2-*event*)	$DA_{vent,(adult, trichloroethene)}$ (µg/cm^2-*event*)	$DA_{event(adult, vinyl chloride)}$ (µg/cm^2-*event*)
Dichloroethylene, 1,2-cis-		1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--	1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--
Dichloroethylene, 1,2-trans-		1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--	1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--
Dichloropropane, 1,3-		1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--	1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--
Diethylformamide		1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--	1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--
Diisopropyl Methylphosphonate		1.00E+00	--	8.00E-02	1.96E-01	--	--	--	--	1.00E+00	--	8.00E-02	1.96E-01	--	--	--	--
Dimethylaniline, N,N-		1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--	1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--
Dithiane, 1,4-		1.00E+00	--	1.00E-02	2.45E-02	--	--	--	--	1.00E+00	--	1.00E-02	2.45E-02	--	--	--	--
Endosulfan		1.00E+00	--	6.00E-03	1.47E-02	--	--	--	--	1.00E+00	--	6.00E-03	1.47E-02	--	--	--	--
Epichlorohydrin		1.00E+00	9.90E-03	6.00E-03	1.47E-02	9.48E-04	--	--	--	1.00E+00	8.00E-02	6.00E-03	1.47E-02	1.17E-04	--	--	--
Ethyl Acrylate		1.00E+00	4.80E-02	5.00E-03	1.23E-02	1.96E-04	--	--	--	1.00E+00	4.80E-02	5.00E-03	1.23E-02	1.96E-04	--	--	--
Ethyl Chloride (Chloroethane)		1.00E+00	--	--	--	--	--	--	--	1.00E+00	4.70E-03	--	--	2.00E-03	--	--	--
Ethyl Ether		1.00E+00	--	2.00E-01	4.91E-01	--	--	--	--	1.00E+00	--	2.00E-01	4.91E-01	--	--	--	--
Ethylene Diamine		1.00E+00	--	9.00E-02	2.21E-01	--	--	--	--	1.00E+00	--	9.00E-02	2.21E-01	--	--	--	--
Furans		--	--	--	--	--	--	--	--		--	--	--	--	--	--	--
~Furan		1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--	1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--
Guanidine		1.00E+00	--	1.00E-02	2.45E-02	--	--	--	--	1.00E+00	--	1.00E-02	2.45E-02	--	--	--	--
Hexabromobenzene		1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--	1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--
Hexachlorobenzene		1.00E+00	1.60E+00	8.00E-04	1.96E-03	5.87E-06	--	--	--	1.00E+00	1.80E+00	8.00E-04	1.96E-03	5.22E-06	--	--	--
Isobutyl Alcohol		1.00E+00	--	3.00E-01	7.36E-01	--	--	--	--	1.00E+00	--	3.00E-01	7.36E-01	--	--	--	--
Lead Compounds		--	--	--	--	--	--	--	--		--	--	--	--	--	--	--
~Lead subacetate		1.00E+00	8.50E-03	--	--	1.10E-03	--	--	--	1.00E+00	3.80E-02	--	--	2.47E-04	--	--	--
Mercury Compounds		--	--	--	--	--	--	--	--		--	--	--	--	--	--	--
Merphos		1.00E+00	--	3.00E-05	7.36E-05	--	--	--	--	1.00E+00	--	3.00E-05	7.36E-05	--	--	--	--
Methyl Acetate		1.00E+00	--	1.00E+00	2.45E+00	--	--	--	--	1.00E+00	--	1.00E+00	2.45E+00	--	--	--	--
Methylene Chloride	M	1.00E+00	2.00E-03	6.00E-03	1.47E-02	--	1.52E-03	--	--	1.00E+00	1.40E-02	6.00E-03	1.47E-02	--	2.17E-04	--	--
Methylene-bis(2-chloroaniline), 4,4'-	M	1.00E+00	1.00E-01	2.00E-03	4.91E-03	--	3.03E-05	--	--	1.00E+00	1.50E+00	2.00E-03	4.91E-03	--	2.02E-06	--	--
Mineral oils		1.00E+00	--	3.00E+00	7.36E+00	--	--	--	--	1.00E+00	--	3.00E+00	7.36E+00	--	--	--	--
Mirex		1.00E+00	1.80E+01	2.00E-04	4.91E-04	5.22E-07	--	--	--	1.00E+00	1.80E+01	2.00E-04	4.91E-04	5.22E-07	--	--	--
Naled		1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--	1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--
Nitrotoluene, o-		1.00E+00	2.20E-01	9.00E-04	2.21E-03	4.27E-05	--	--	--	1.00E+00	2.20E-01	9.00E-04	2.21E-03	4.27E-05	--	--	--
Pentachloroethane		1.00E+00	9.00E-02	--	--	1.04E-04	--	--	--	1.00E+00	9.00E-02	--	--	1.04E-04	--	--	--
Perfluorobutane Sulfonate		1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--	1.00E+00	--	2.00E-02	4.91E-02	--	--	--	--
Phosphorus, White		1.00E+00	--	2.00E-05	4.91E-05	--	--	--	--	1.00E+00	--	2.00E-05	4.91E-05	--	--	--	--

Table B-4. Derivation of Dermally-Absorbed Dose per Event: Domestic Use of Water -- Residential Scenario

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, Carcinogens	AT_c	70	70	yrs
Averaging Time, Noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Averaging Time, Noncarcinogens, adult	$AT_{nc,a}$	20	20	yrs
Body Weight, adult	BW_a	80	80	kg
Body Weight, child	BW_c	15	15	kg
Carcinogenic Adjustment Factor, oral exposure	CAF_O	0.804	0.804	dimensionless
Conversion factor, dermal	CF_{d1}	1000	1000	µg/mg
COPC Absorbed Dose per Event	DA_{event}	chemical and receptor-specific		µg/cm^2-event
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Event Frequency, resident	EV_r	1	1	events/day
Mutagenic Adjustment Factor, oral exposure	MAF_O	0.202	0.202	dimensionless
Oral Reference Dose Adjusted for GI Absorption	RfD_d	chemical-specific		(mg/kg-day)
Exposed Body Surface Area, adult	SA_a	20900	20900	cm^2
Exposed Body Surface Area, child	SA_c	6378	6378	cm^2
Oral Slope Factor Adjusted for GI Absorption	SF_D	chemical-specific		(mg/kg-day)$^{-1}$
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Equations

Cancer Risk:

Carcinogens:

$$DA_{event,(carcinogen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}$$

Mutagens:

$$DA_{event,(mutagen)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times EF_r \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)}$$

Trichloroethene:

$$DA_{event,(trichloroethene)} = \frac{TR \times AT_c \times 365\frac{day}{year} \times CF_{d1}}{SF_d \times \left\{\left[CAF_O \times \left(\frac{EV_r \times ED_c \times EF_r \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times EF_r \times SA_a}{BW_z}\right)\right] + \left[MAF_O \times \left(\begin{array}{l}\frac{EV_r \times ED_{0-2} \times EF_r \times SA_c \times ADAF_{0-2}}{BW_c} + \frac{EV_r \times ED_{2-6} \times EF_r \times SA_c \times ADAF_{2-6}}{BW_c} \\ + \frac{EV_r \times ED_{6-16} \times EF_r \times SA_a \times ADAF_{6-16}}{BW_a} + \frac{EV_r \times ED_{16-26} \times EF_r \times SA_a \times ADAF_{16-26}}{BW_a}\end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$DA_{event,(vinyl\ chloride)} = \frac{TR}{\left(\frac{SF_D \times EF_r \times \left(\frac{EV_r \times ED_c \times SA_c}{BW_c} + \frac{EV_r \times ED_a \times SA_a}{BW_a}\right)}{AT_c \times 365\frac{day}{year} \times CF_{d1}} + \frac{SF_D \times EV_r \times SA_c}{BW_c \times CF_{d1}}\right)}$$

Noncancer:

$$DA_{event,(child,noncarcinogen)} = \frac{THQ \times BW_c \times AT_{nc,c} \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times ED_c \times EF_r \times SA_c}$$

DTSC Cadmium noncancer:

$$DA_{event,(Cd,noncarcinogen)} = \frac{THQ \times 365\frac{day}{year} \times CF_{d1}}{\frac{1}{RfD_D} \times EV_r \times EF_r \times \left(\frac{ED_c \times SA_c}{BW_c \times AT_{nc,c}} + \frac{ED_a \times SA_a}{BW_a \times AT_{nc,a}}\right)}$$

		USEPA								DTSC-Modified							
Analyte	**Mutagen?**	**GI Absorption** (*dimensionless*)	**SF_D** (*mg/kg-day*)$^{-1}$	**RfD_d** (*mg/kg-day*)	**$DA_{event(child, noncarcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, carcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, mutagen)}$** (µg/cm^2-*event*)	**$DA_{event,(adult, trichloroethene)}$** (µg/cm^2-*event*)	**$DA_{event(adult, vinyl chloride)}$** (µg/cm^2-*event*)	**GI Absorption** (*dimensionless*)	**SF_D** (*mg/kg-day*)$^{-1}$	**RfD_d** (*mg/kg-day*)	**$DA_{event(child, noncarcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, carcinogen)}$** (µg/cm^2-*event*)	**$DA_{event(adult, mutagen)}$** (µg/cm^2-*event*)	**$DA_{event,(adult, trichloroethene)}$** (µg/cm^2-*event*)	**$DA_{event(adult, vinyl chloride)}$** (µg/cm^2-*event*)
Phthalates		--	--	--	--	--	--	--	--		--	--	--	--	--	--	--
~Dimethylterephthalate		1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--	1.00E+00	--	1.00E-01	2.45E-01	--	--	--	--
Polychlorinated Biphenyls (PCBs)		--	--	--	--	--	--	--	--		--	--	--	--	--	--	--
~Aroclor 1016		1.00E+00	7.00E-02	7.00E-05	1.72E-04	1.34E-04	--	--	--	1.00E+00	7.00E-02	7.00E-05	1.72E-04	1.34E-04	--	--	--
~Aroclor 1254		1.00E+00	2.00E+00	2.00E-05	4.91E-05	4.69E-06	--	--	--	1.00E+00	2.00E+00	2.00E-05	4.91E-05	4.69E-06	--	--	--
~Aroclor 5460		1.00E+00	--	6.00E-04	1.47E-03	--	--	--	--	1.00E+00	--	6.00E-04	1.47E-03	--	--	--	--
Polynuclear Aromatic Hydrocarbons (PAHs)		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Benzo[k]fluoranthene	M	1.00E+00	7.30E-02	--	--	--	4.16E-05	--	--	1.00E+00	1.20E+00	--	--	--	2.53E-06	--	--
Propargyl Alcohol		1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--	1.00E+00	--	2.00E-03	4.91E-03	--	--	--	--
Propylene Glycol Monoethyl Ether		1.00E+00	--	7.00E-01	1.72E+00	--	--	--	--	1.00E+00	--	7.00E-01	1.72E+00	--	--	--	--
Pyridine		1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--	1.00E+00	--	1.00E-03	2.45E-03	--	--	--	--
Tetrachloroethane, 1,1,2,2-		1.00E+00	2.00E-01	2.00E-02	4.91E-02	4.69E-05	--	--	--	1.00E+00	2.70E-01	2.00E-02	4.91E-02	3.48E-05	--	--	--
Tetrachloroethylene		1.00E+00	2.10E-03	6.00E-03	1.47E-02	4.47E-03	--	--	--	1.00E+00	5.40E-01	6.00E-03	1.47E-02	1.74E-05	--	--	--
Thallium Acetate		1.00E+00	--	6.00E-06	1.47E-05	--	--	--	--	1.00E+00	--	6.00E-06	1.47E-05	--	--	--	--
Trichloroethane, 1,1,1-		1.00E+00	--	2.00E+00	4.91E+00	--	--	--	--	1.00E+00	--	2.00E+00	4.91E+00	--	--	--	--
Trichlorophenol, 2,4,6-		1.00E+00	1.10E-02	1.00E-03	2.45E-03	8.53E-04	--	--	--	1.00E+00	7.00E-02	1.00E-03	2.45E-03	1.34E-04	--	--	--
Trichloropropane, 1,1,2-		1.00E+00	--	5.00E-03	1.23E-02	--	--	--	--	1.00E+00	--	5.00E-03	1.23E-02	--	--	--	--
Trichloropropane, 1,2,3-	M	1.00E+00	3.00E+01	4.00E-03	9.81E-03	--	1.01E-07	--	--	1.00E+00	3.00E+01	4.00E-03	9.81E-03	--	1.01E-07	--	--
Additional Analytes																	
Chloropropane, 2-		1.00E+00	--	--	--	--	--	--	--	1.00E+00	--	--	--	--	--	--	--
Dichlorobenzene, 1,3-		1.00E+00	--	--	--	--	--	--	--	1.00E+00	--	3.00E-02	7.36E-02	--	--	--	--
Methylcyclohexane		1.00E+00	--	--	--	--	--	--	--	1.00E+00	--	--	--	--	--	--	--

Table B-5. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed Dermally during Domestic Use of Tap Water

Definition	Variable	USEPA Value	DTSC Value	Units
Relative contribution of permeability coefficients in stratum corneum and viable epidermis	B	Calculated (Equation 3)		dimensionless
Correlation coefficient	b	Calculated (Equation 4)		dimensionless
Correlation coefficient	c	Calculated (Equation 4)		dimensionless
Conversion factor, dermal	CF_{d2}	1000	1000	cm^3/L
Effective diffusion coefficient, through the stratum corneum	D_{sc}	Calculated (Equation 2)		cm^2/hr
Dose absorbed per unit area per event	DA_{event}	Calculated		$\mu g/cm^2$-event
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Fraction Absorbed, resident	FA_r	Chemical-specific		dimensionless
Permeability coefficient from water (organics only)	K_p	Calculated (Equation 1)		cm/hr
Octanol:water partition coefficient	K_{ow}	Chemical-specific		dimensionless
Thickness of the strateum corneum	l_{sc}	0.001	0.001	cm
Molecular weight	MW	Chemical-specific		g/mole
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		µg/L
Lag time per event	τ_{event}	Calculated (Equation 2)		hr/event
Time it takes to reach steady state	t*	Calculated (Equation 4)		hr
Duration of event, child	$t_{event,child}$	0.54	0.54	hr/event
Duration of event, adult	$t_{event,adult}$	0.71	0.71	hr/event
Duration of event, adjusted lifetime	$t_{event,lifetime}$	Calculated (Equation 4)		hr/event

Intermediate Equations

1) $K_p = 10^{(-2.805063+0.6645865 LogK_{OW} - 0.0056118 MW)}$

2) $\tau_{event} = \frac{(l_{sc})^2}{6D_{sc}}$

where: $D_{sc} = l_{sc} \times 10^{(-2.8-0.0056MW)}$

3) $B = K_p \frac{\sqrt{MW}}{2.6}$ (as an approximation)

4) If $B \leq 0.6$: $t^* = 2.4\tau_{event}$

If $B > 0.6$: $t^* = 6\tau_{event}\left(b - \sqrt{b^2 - c^2}\right)$

$b = \frac{2 \times (1+B)^2}{\pi} - c$

$c = \frac{1 + 3B + 3B^2}{3 \times (1+B)}$

5) $t_{event,lifetime} = \frac{t_{event,child} \times ED_c + t_{event,adult} \times ED_a}{ED_c + ED_a}$

RSL_D Derivation

Carcinogens, Mutagens, Trichloroethene, Vinyl Chloride

Inorganic:

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{K_p \times t_{event,lifetime}}$$

Organic (if $t_{event,lifetime} \leq t^*$):

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{2FA_r \times K_p \times \left(\sqrt{\frac{6\tau_{event} \times t_{event,lifetime}}{\pi}}\right)}$$

Organic (if $t_{event,lifetime} > t^*$):

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{FA_r \times K_p \times \left(\frac{t_{event,lifetime}}{1+B} + (2 \times \tau_{event}) \times \frac{1+3B+3B^2}{(1+B)^2}\right)}$$

Noncarcinogen:

Inorganic:

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{K_p \times t_{event,child}}$$

Organic (if $t_{event,child} \leq t^*$):

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{2FA_r \times K_p \times \left(\sqrt{\frac{6\tau_{event} \times t_{event,child}}{\pi}}\right)}$$

Organic (if $t_{event,child} > t^*$):

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{FA_r \times K_p \times \left(\frac{t_{event,child}}{1+B} + (2 \times \tau_{event}) \times \frac{1+3B+3B^2}{(1+B)^2}\right)}$$

Analyte	Mutagen?	MW (g/mole)	$LogK_{OW}$ (dimensionless)	Kp^a (cm/hr)	USEPA τ_{event} (hr/event)	DTSC-Modified τ_{event} (hr/event)	B (dimensionless)	c (dimensionless)	b (dimensionless)	USEPA t* (hr)	DTSC-Modified t* (hr)	FA_r (dimensionless)	Residential USEPA RSL_D (µg/L) Carcinogen	Residential USEPA RSL_D (µg/L) Noncarcinogen	Residential DTSC-SL_D (µg/L) Carcinogen	Residential DTSC-SL_D (µg/L) Noncarcinogen
USEPA RSL Analytes																
Acetophenone		120.15	1.58E+00	3.72E-03	4.95E-01	4.95E-01	1.57E-02	3.44E-01	3.13E-01	1.19E+00	1.19E+00	1	--	4.61E+04	--	4.61E+04
Acrylamide	M	71.08	-6.70E-01	2.24E-04	2.63E-01	2.63E-01	7.27E-04	3.34E-01	3.04E-01	6.31E-01	6.31E-01	1	2.26E+01	2.10E+04	2.51E+00	2.10E+04
Acrylonitrile		53.06	2.50E-01	1.16E-03	2.08E-01	2.08E-01	3.24E-03	3.35E-01	3.05E-01	5.00E-01	5.00E-01	1	1.38E+01	8.87E+04	7.47E+00	8.87E+04
Aldrin		364.92	6.50E+00	NRP	1.16E+01	1.16E+01	--	--	--	--	--	1	--	--	--	--
Arsenic, Inorganic		74.922		1.00E-03	--	--	--	--	--	--	--	1	9.33E+00	1.36E+03	1.47E+00	1.59E+01
Benzaldehyde		106.13	1.48E+00	3.83E-03	4.13E-01	4.13E-01	1.52E-02	3.44E-01	3.13E-01	9.92E-01	9.92E-01	1	--	4.91E+04	--	4.91E+04
Benzene		78.11	2.13E+00	1.49E-02	2.88E-01	2.88E-01	5.05E-02	3.68E-01	3.35E-01	6.91E-01	6.91E-01	1	9.45E+00	6.06E+02	5.20E+00	6.06E+02
Benzenethiol		110.17	2.52E+00	1.78E-02	4.35E-01	4.35E-01	7.20E-02	3.83E-01	3.49E-01	1.04E+00	1.04E+00	1	--	1.03E+02	--	1.03E+02
Beryllium and compounds		9.01		1.00E-03	--	--	--	--	--	--	--	1	--	6.36E+01	--	9.08E+02
Bis(2-chloro-1-methylethyl) ether		171.07	2.48E+00	7.64E-03	9.55E-01	9.55E-01	3.84E-02	3.59E-01	3.27E-01	2.29E+00	2.29E+00	1	7.94E+00	6.47E+03	7.94E+00	6.47E+03
Bromodichloromethane		163.83	2.00E+00	4.02E-03	8.70E-01	8.70E-01	1.98E-02	3.47E-01	3.15E-01	2.09E+00	2.09E+00	1	1.78E+01	6.44E+03	8.50E+00	6.44E+03
Bromoform		252.73	2.40E+00	2.35E-03	2.74E+00	2.74E+00	1.44E-02	3.43E-01	3.12E-01	6.57E+00	6.57E+00	1	1.35E+02	6.20E+03	9.69E+01	6.20E+03
Butanol, N-		74.12	8.80E-01	2.31E-03	2.73E-01	2.73E-01	7.65E-03	3.38E-01	3.08E-01	6.56E-01	6.56E-01	1	--	9.99E+04	--	9.99E+04
Butylbenzene, n-		134.22	4.38E+00	NRP	5.94E-01	5.94E-01	--	--	--	--	--	1	--	--	--	--
Butylbenzene, sec-		134.22	4.57E+00	NRP	5.94E-01	5.94E-01	--	--	--	--	--	1	--	--	--	--
Carbon Tetrachloride		153.82	2.83E+00	1.63E-02	7.64E-01	7.64E-01	7.78E-02	3.87E-01	3.52E-01	1.83E+00	1.83E+00	1	4.15E+00	3.39E+02	1.94E+00	3.39E+02
Chloral Hydrate		165.4	9.90E-01	8.41E-04	8.87E-01	8.87E-01	4.16E-03	3.36E-01	3.06E-01	2.13E+00	2.13E+00	1	--	1.52E+05	--	1.52E+05
Chlordane		409.78	6.26E+00	NRP	2.07E+01	2.07E+01	--	--	--	--	--	0.7	--	--	--	--
Chloroacetaldehyde, 2-		78.5	9.00E-02	6.52E-04	2.89E-01	2.89E-01	2.22E-03	3.35E-01	3.05E-01	6.94E-01	6.94E-01	1	4.38E+01	--	4.38E+01	--
Chloroethanol, 2-		80.51	3.00E-02	5.80E-04	2.97E-01	2.97E-01	2.00E-03	3.35E-01	3.05E-01	7.13E-01	7.13E-01	1	--	7.65E+04	--	7.65E+04
Chlorophenol, 2-		128.56	2.15E+00	7.99E-03	5.52E-01	5.52E-01	3.48E-02	3.57E-01	3.25E-01	1.32E+00	1.32E+00	1	--	1.02E+03	--	1.02E+03
Crotonaldehyde, trans-		70.09	6.00E-01	1.59E-03	2.60E-01	2.60E-01	5.11E-03	3.37E-01	3.06E-01	6.23E-01	6.23E-01	1	2.62E+00	1.49E+03	2.62E+00	1.49E+03
Cyanides				1.00E-03	--	--	--	--	--	--	--		--	--	--	--
~Cyanogen		52.04	7.00E-02	8.90E-04	2.06E-01	2.06E-01	2.47E-03	3.35E-01	3.05E-01	4.94E-01	4.94E-01	1	--	5.10E+03	--	5.10E+03
~Cyanogen Bromide		105.92		2.55E-04	--	--	--	--	--	--	--	1	--	1.60E+06	--	1.60E+06
~Cyanogen Chloride		61.47		3.94E-04	--	--	--	--	--	--	--	1	--	5.76E+05	--	5.76E+05
~Thiocyanic Acid		59.09	5.80E-01	1.00E-03	2.25E-01	2.25E-01	2.96E-03	3.35E-01	3.05E-01	5.41E-01	5.41E-01	1	--	9.08E+02	--	9.08E+02
Cyclohexylamine		99.18	1.49E+00	4.25E-03	3.78E-01	3.78E-01	1.63E-02	3.44E-01	3.13E-01	9.07E-01	9.07E-01	1	--	9.24E+04	--	9.24E+04
Dibromochloromethane		208.28	2.16E+00	2.89E-03	1.54E+00	1.54E+00	1.61E-02	3.44E-01	3.13E-01	3.70E+00	3.70E+00	1	1.37E+01	6.72E+03	1.23E+01	6.72E+03
Dibromoethane, 1,2-		187.86	1.96E+00	2.78E-03	1.19E+00	1.19E+00	1.46E-02	3.43E-01	3.12E-01	2.84E+00	2.84E+00	1	6.86E-01	3.60E+03	3.81E-01	3.60E+03
Dichloroethane, 1,1-		98.96	1.79E+00	6.75E-03	3.77E-01	3.77E-01	2.58E-02	3.51E-01	3.19E-01	9.04E-01	9.04E-01	1	1.76E+02	5.83E+04	1.76E+02	5.83E+04
Dichloroethylene, 1,2-cis-		96.94	1.86E+00	7.71E-03	3.67E-01	3.67E-01	2.92E-02	3.53E-01	3.21E-01	8.81E-01	8.81E-01	1	--	5.17E+02	--	5.17E+02
Dichloroethylene, 1,2-trans-		96.94	2.09E+00	1.10E-02	3.67E-01	3.67E-01	4.15E-02	3.62E-01	3.29E-01	8.81E-01	8.81E-01	1	--	3.64E+03	--	3.64E+03
Dichloropropane, 1,3-		112.99	2.00E+00	7.76E-03	4.51E-01	4.51E-01	3.17E-02	3.55E-01	3.23E-01	1.08E+00	1.08E+00	1	--	4.63E+03	--	4.63E+03
Diethylformamide		101.15	5.00E-02	4.58E-04	3.88E-01	3.88E-01	1.77E-03	3.35E-01	3.04E-01	9.30E-01	9.30E-01	1	--	4.24E+03	--	4.24E+03
Diisopropyl Methylphosphonate		180.19	1.03E+00	7.38E-04	1.07E+00	1.07E+00	3.81E-03	3.36E-01	3.06E-01	2.58E+00	2.58E+00	1	--	1.26E+05	--	1.26E+05
Dimethylaniline, N,N-		121.18	2.31E+00	1.12E-02	5.02E-01	5.02E-01	4.75E-02	3.66E-01	3.33E-01	1.20E+00	1.20E+00	1	--	3.04E+02	--	3.04E+02
Dithiane, 1,4-		120.23	7.70E-01	1.08E-03	4.96E-01	4.96E-01	4.54E-03	3.36E-01	3.06E-01	1.19E+00	1.19E+00	1	--	1.59E+04	--	1.59E+04
Endosulfan		406.92	3.83E+00	2.86E-03	2.00E+01	2.00E+01	2.22E-02	3.48E-01	3.17E-01	4.80E+01	4.80E+01	0.9	--	6.29E+02	--	6.29E+02
Epichlorohydrin		92.53	4.50E-01	9.43E-04	3.47E-01	3.47E-01	3.49E-03	3.36E-01	3.05E-01	8.32E-01	8.32E-01	1	7.54E+02	1.30E+04	9.33E+01	1.30E+04
Ethyl Acrylate		100.12	1.32E+00	3.24E-03	3.82E-01	3.82E-01	1.25E-02	3.42E-01	3.11E-01	9.18E-01	9.18E-01	1	4.31E+01	3.01E+03	4.31E+01	3.01E+03
Ethyl Chloride (Chloroethane)		64.52	1.43E+00	6.07E-03	2.42E-01	2.42E-01	1.88E-02	3.46E-01	3.15E-01	5.80E-01	5.80E-01	1	--	--	--	--
Ethyl Ether		74.12	8.90E-01	2.35E-03	2.73E-01	2.73E-01	7.77E-03	3.39E-01	3.08E-01	6.56E-01	6.56E-01	1	--	1.97E+05	--	1.97E+05

Table B-5. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed Dermally during Domestic Use of Tap Water

Definition	Variable	USEPA Value	DTSC Value	Units
Relative contribution of permeability coefficients in stratum corneum and viable epidermis	B	Calculated (Equation 3)		dimensionless
Correlation coefficient	b	Calculated (Equation 4)		dimensionless
Correlation coefficient	c	Calculated (Equation 4)		dimensionless
Conversion factor, dermal	CF_{d2}	1000	1000	cm^3/L
Effective diffusion coefficient, through the stratum corneum	D_{sc}	Calculated (Equation 2)		cm^2/hr
Dose absorbed per unit area per event	DA_{event}	Calculated		$\mu g/cm^2$-event
Exposure Duration, adult	ED_a	20	20	yrs
Exposure Duration, child	ED_c	6	6	yrs
Fraction Absorbed, resident	FA_r	Chemical-specific		dimensionless
Permeability coefficient from water (organics only)	K_p	Calculated (Equation 1)		cm/hr
Octanol:water partition coefficient	K_{ow}	Chemical-specific		dimensionless
Thickness of the strateum corneum	l_{sc}	0.001	0.001	cm
Molecular weight	MW	Chemical-specific		g/mole
(Regional) Screening Level, dermal	$(R)SL_D$	derived herein		µg/L
Lag time per event	τ_{event}	Calculated (Equation 2)		hr/event
Time it takes to reach steady state	t*	Calculated (Equation 4)		hr
Duration of event, child	$t_{event,child}$	0.54	0.54	hr/event
Duration of event, adult	$t_{event,adult}$	0.71	0.71	hr/event
Duration of event, adjusted lifetime	$t_{event,lifetime}$	Calculated (Equation 4)		hr/event

Intermediate Equations

1) $K_p = 10^{(-2.805063+0.6645865 LogK_{OW} - 0.0056118 MW)}$

2) $\tau_{event} = \frac{(l_{sc})^2}{6D_{sc}}$

where:

$D_{sc} = l_{sc} \times 10^{(-2.8-0.0056MW)}$

3) $B = K_p \frac{\sqrt{MW}}{2.6}$ (as an approximation)

4) If $B \leq 0.6$: $t^* = 2.4\tau_{event}$

If $B > 0.6$: $t^* = 6\tau_{event}\left(b - \sqrt{b^2 - c^2}\right)$

$b = \frac{2 \times (1+B)^2}{\pi} - c$

$c = \frac{1 + 3B + 3B^2}{3 \times (1+B)}$

5) $t_{event,lifetime} = \frac{t_{event,child} \times ED_c + t_{event,adult} \times ED_a}{ED_c + ED_a}$

RSL_D Derivation

Carcinogens, Mutagens, Trichloroethene, Vinyl Chloride

Inorganic

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{K_p \times t_{event,lifetime}}$$

Organic (if $t_{event,lifetime} \leq t^*$):

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{2FA_r \times K_p \times \left(\sqrt{\frac{6\tau_{event} \times t_{event,lifetime}}{\pi}}\right)}$$

Organic (if $t_{event,lifetime} > t^*$):

$$RSL_D = \frac{DA_{event} \times CF_{d2}}{FA_r \times K_p \times \left(\frac{t_{event,lifetime}}{1+B} + (2 \times \tau_{event}) \times \frac{1+3B+3B^2}{(1+B)^2}\right)}$$

Noncarcinogen:

Inorganic

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{K_p \times t_{event,child}}$$

Organic (if $t_{event,child} \leq t^*$):

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{2FA_r \times K_p \times \left(\sqrt{\frac{6\tau_{event} \times t_{event,child}}{\pi}}\right)}$$

Organic (if $t_{event,child} > t^*$):

$$RSL_D = \frac{DA_{event,(child,noncarcinogen)} \times CF_{d2}}{FA_r \times K_p \times \left(\frac{t_{event,child}}{1+B} + (2 \times \tau_{event}) \times \frac{1+3B+3B^2}{(1+B)^2}\right)}$$

Analyte	Mutagen?	MW (g/mole)	$LogK_{OW}$ (dimensionless)	Kp^a (cm/hr)	USEPA τ_{event} (hr/event)	DTSC-Modified τ_{event} (hr/event)	B (dimensionless)	c (dimensionless)	b (dimensionless)	USEPA t* (hr)	DTSC-Modified t* (hr)	FA_r (dimensionless)	Residential USEPA RSL_D (µg/L) Carcinogen	Residential USEPA RSL_D (µg/L) Noncarcinogen	Residential DTSC-SL_D (µg/L) Carcinogen	Residential DTSC-SL_D (µg/L) Noncarcinogen
Ethylene Diamine		60.1	-2.04E+00	NRP	2.28E-01	2.28E-01	--	--	--	--	--	1	--	--	--	--
Furans				--	--	--	--	--	--	--	--		--	--	--	--
~Furan		68.08	1.34E+00	5.05E-03	2.53E-01	2.53E-01	1.60E-02	3.44E-01	3.13E-01	6.07E-01	6.07E-01	1	--	4.75E+02	--	4.75E+02
Guanidine		59.07	-1.63E+00	6.03E-05	2.25E-01	2.25E-01	1.78E-04	3.33E-01	3.03E-01	5.41E-01	5.41E-01	1	--	4.22E+05	--	4.22E+05
Hexabromobenzene		551.49	6.07E+00	NRP	1.29E+02	1.29E+02	--	--	--	--	--	0.7	--	--	--	--
Hexachlorobenzene		284.78	5.73E+00	NRP	4.14E+00	4.14E+00	--	--	--	--	--	0.9	--	--	--	--
Isobutyl Alcohol		74.12	7.60E-01	1.92E-03	2.73E-01	2.73E-01	6.37E-03	3.38E-01	3.07E-01	6.56E-01	6.56E-01	1	--	3.60E+05	--	3.60E+05
Lead Compounds				--	--	--	--	--	--	--	--		--	--	--	--
~Lead subacetate		805.7	-4.00E+00	NRP	3.42E+03	3.42E+03	--	--	--	--	--	1	--	--	--	--
Merphos		298.5	7.67E+00	NRP	4.94E+00	4.94E+00	--	--	--	--	--	0.3	--	--	--	--
Methyl Acetate		74.08	1.80E-01	7.92E-04	2.73E-01	2.73E-01	2.62E-03	3.35E-01	3.05E-01	6.56E-01	6.56E-01	1	--	2.92E+06	--	2.92E+06
Methylene Chloride	M	84.93	1.25E+00	3.54E-03	3.14E-01	3.14E-01	1.25E-02	3.42E-01	3.11E-01	7.55E-01	7.55E-01	1	3.38E+02	3.65E+03	4.82E+01	3.65E+03
Methylene-bis(2-chloroaniline), 4,4'-	M	267.16	3.91E+00	1.97E-02	3.30E+00	3.30E+00	1.24E-01	4.20E-01	3.84E-01	7.91E+00	7.91E+00	0.9	4.17E-01	7.51E+01	2.78E-02	7.51E+01
Mineral oils		170.34	6.10E+00	NRP	9.46E-01	9.46E-01	--	--	--	--	--	1	--	--	--	--
Mirex		545.55	6.89E+00	NRP	1.19E+02	1.19E+02	--	--	--	--	--	0.5	--	--	--	--
Naled		380.79	1.38E+00	9.44E-05	1.43E+01	1.43E+01	7.09E-04	3.34E-01	3.04E-01	3.42E+01	3.42E+01	1	--	6.77E+03	--	6.77E+03
Nitrotoluene, o-		137.14	2.30E+00	8.99E-03	6.16E-01	6.16E-01	4.05E-02	3.61E-01	3.28E-01	1.48E+00	1.48E+00	1	2.67E+00	1.54E+02	2.67E+00	1.54E+02
Pentachloroethane		202.3	3.22E+00	1.58E-02	1.43E+00	1.43E+00	8.66E-02	3.93E-01	3.58E-01	3.43E+00	3.43E+00	1	2.43E+00	--	2.43E+00	--
Perfluorobutane Sulfonate		300.1	1.82E+00	5.23E-04	5.04E+00	5.04E+00	3.49E-03	3.36E-01	3.05E-01	1.21E+01	1.21E+01	1	--	2.06E+04	--	2.06E+04
Phosphorus, White		30.974	3.08E+00	1.00E-03	1.57E-01	1.57E-01	2.14E-03	3.35E-01	3.05E-01	3.76E-01	3.76E-01	1	--	9.08E+01	--	9.08E+01
Phthalates				--	--	--	--	--	--	--	--		--	--	--	--
~Dimethylterephthalate		194.19	2.25E+00	3.99E-03	1.29E+00	1.29E+00	2.14E-02	3.48E-01	3.16E-01	3.09E+00	3.09E+00	1	--	2.67E+04	--	2.67E+04
Polychlorinated Biphenyls (PCBs)				--	--	--	--	--	--	--	--		--	--	--	--
~Aroclor 1016		257.55	5.69E+00	NRP	2.91E+00	2.91E+00	--	--	--	--	--	0.9	--	--	--	--
~Aroclor 1254		326.44	6.50E+00	NRP	7.08E+00	7.08E+00	--	--	--	--	--	0.5	--	--	--	--
~Aroclor 5460		291.99	6.34E+00	NRP	4.54E+00	4.54E+00	--	--	--	--	--	0.7	--	--	--	--
Polynuclear Aromatic Hydrocarbons (PAHs)				--	--	--	--	--	--	--	--		--	--	--	--
~Benzo[k]fluoranthene	M	252.32	6.11E+00	NRP	2.72E+00	2.72E+00	--	--	--	--	--	0.9	--	--	--	--
Propargyl Alcohol		56.06	-3.80E-01	4.24E-04	2.17E-01	2.17E-01	1.22E-03	3.34E-01	3.04E-01	5.20E-01	5.20E-01	1	--	1.19E+04	--	1.19E+04
Propylene Glycol Monoethyl Ether		104.15	2.00E-03	4.09E-04	4.03E-01	4.03E-01	1.61E-03	3.34E-01	3.04E-01	9.67E-01	9.67E-01	1	--	3.26E+06	--	3.26E+06
Pyridine		79.1	6.50E-01	1.52E-03	2.92E-01	2.92E-01	5.21E-03	3.37E-01	3.06E-01	7.00E-01	7.00E-01	1	--	1.47E+03	--	1.47E+03
Tetrachloroethane, 1,1,2,2-		167.85	2.39E+00	6.94E-03	9.16E-01	9.16E-01	3.46E-02	3.57E-01	3.25E-01	2.20E+00	2.20E+00	1	3.12E+00	3.64E+03	2.31E+00	3.64E+03
Tetrachloroethylene		165.83	3.40E+00	3.34E-02	8.92E-01	8.92E-01	1.65E-01	4.51E-01	4.13E-01	2.14E+00	2.14E+00	1	6.26E+01	2.30E+02	2.43E-01	2.30E+02
Thallium Acetate		263.427	-1.70E-01	4.01E-05	3.14E+00	3.14E+00	2.51E-04	3.34E-01	3.03E-01	7.54E+00	7.54E+00	1	--	1.02E+02	--	1.02E+02
Trichloroethane, 1,1,1-		133.41	2.49E+00	1.26E-02	5.87E-01	5.87E-01	5.61E-02	3.72E-01	3.38E-01	1.41E+00	1.41E+00	1	--	2.50E+05	--	2.50E+05
Trichlorophenol, 2,4,6-		197.45	3.69E+00	3.46E-02	1.34E+00	1.34E+00	1.87E-01	4.68E-01	4.29E-01	3.22E+00	3.22E+00	1	9.40E+00	3.01E+01	1.48E+00	3.01E+01
Trichloropropane, 1,1,2-		147.43	2.43E+00	9.61E-03	7.04E-01	7.04E-01	4.49E-02	3.64E-01	3.31E-01	1.69E+00	1.69E+00	1	--	7.49E+02	--	7.49E+02
Trichloropropane, 1,2,3-	M	147.43	2.27E+00	7.52E-03	7.04E-01	7.04E-01	3.51E-02	3.57E-01	3.25E-01	1.69E+00	1.69E+00	1	7.08E-03	7.66E+02	7.08E-03	7.66E+02
Additional Analytes																
Chloropropane, 2-		78.54	1.90E+00	1.04E-02	2.90E-01	2.90E-01	3.54E-02	3.57E-01	3.25E-01	6.95E-01	6.95E-01	1	--	--	--	--
Dichlorobenzene, 1,3-		147	3.53E+00	5.20E-02	7.00E-01	7.00E-01	2.42E-01	5.11E-01	4.72E-01	1.68E+00	1.68E+00	1	--	--	--	--
Methylcyclohexane		98.19	3.61E+00	1.10E-01	3.73E-01	3.73E-01	4.21E-01	6.55E-01	6.30E-01	8.95E-01	8.95E-01	1	--	--	--	--

[a] NRP = Not reliably predicted; the compound's chemical properties fall outside the Effective Prediction Domain for Kp (Equations 3.9 and 3.10; USEPA, 2004a).

Table B-6. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed via Inhalation to Volatile Compounds during Domestic Use of Water

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Carcinogenic Adjustment Factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Mutagenic Adjustment Factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		µg/L
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Volatilization Factor	VF	0.5	0.5	L/m^3

Risk and Hazard Equations

Cancer Risk:

Carcinogens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ED_r \times ET_r \times VF}$$

Mutagens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left(\begin{array}{c} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times VF}$$

Trichloroethene:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ET_r \times VF \times \left\{[CAF_I \times ED_r \times EF_r] + \left[MAF_I \times \left(\begin{array}{c} ED_{0-2} \times EF_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ADAF_{2-6} \\ +ED_{6-16} \times EF_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$RSL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times VF}{AT_c \times 365\frac{days}{year}}\right) + (IUR \times VF)}$$

Noncancer Hazard:

$$RSL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times VF}$$

		Residential USEPA RSL_{inh}				Residential DTSC-SL_{inh}			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)
USEPA RSL Analytes									
Acetophenone		--	--	--	--	--	--	4.00E+02	8.34E+02
Acrylonitrile		6.80E-05	8.26E-02	2.00E+00	4.17E+00	2.90E-04	1.94E-02	5.00E+00	1.04E+01
Aldrin		4.90E-03	1.15E-03	--	--	4.90E-03	1.15E-03	1.20E-01	2.50E-01
Benzaldehyde		--	--	--	--	--	--	4.00E+02	8.34E+02
Benzene		7.80E-06	7.20E-01	3.00E+01	6.26E+01	2.90E-05	1.94E-01	3.00E+00	6.26E+00
Benzenethiol		--	--	--	--	--	--	4.00E+00	8.34E+00
Bis(2-chloro-1-methylethyl) ether		1.00E-05	5.62E-01	--	--	1.00E-05	5.62E-01	1.60E+02	3.34E+02
Bromodichloromethane		3.70E-05	1.52E-01	--	--	3.70E-05	1.52E-01	8.00E+01	1.67E+02
Bromoform		1.10E-06	5.10E+00	--	--	1.10E-06	5.10E+00	8.00E+01	1.67E+02
Butanol, N-		--	--	--	--	--	--	4.00E+02	8.34E+02
Butylbenzene, n-		--	--	--	--	--	--	2.00E+02	4.17E+02
Butylbenzene, sec-		--	--	--	--	--	--	4.00E+02	8.34E+02
Carbon Tetrachloride		6.00E-06	9.36E-01	1.00E+02	2.09E+02	4.20E-05	1.34E-01	4.00E+01	8.34E+01
Chloral Hydrate		--	--	--	--	--	--	4.00E+02	8.34E+02
Chlordane		1.00E-04	5.62E-02	7.00E-01	1.46E+00	3.40E-04	1.65E-02	7.00E-01	1.46E+00

Table B-6. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed via Inhalation to Volatile Compounds during Domestic Use of Water

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Carcinogenic Adjustment Factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Mutagenic Adjustment Factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		µg/L
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Volatilization Factor	VF	0.5	0.5	L/m^3

Risk and Hazard Equations

Cancer Risk:

Carcinogens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ED_r \times ET_r \times VF}$$

Mutagens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left(\begin{array}{c} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times VF}$$

Trichloroethene:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ET_r \times VF \times \left\{[CAF_I \times ED_r \times EF_r] + \left[MAF_I \times \left(\begin{array}{c} ED_{0-2} \times EF_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ADAF_{2-6} \\ +ED_{6-16} \times EF_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$RSL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times VF}{AT_c \times 365\frac{days}{year}}\right) + (IUR \times VF)}$$

Noncancer Hazard:

$$RSL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times VF}$$

		Residential USEPA RSL_{inh}				Residential DTSC-SL_{inh}			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)
Chloroacetaldehyde, 2-		--	--	--	--	6.75E-05	8.32E-02	--	--
Chloroethanol, 2-		--	--	--	--	--	--	8.00E+01	1.67E+02
Chlorophenol, 2-		--	--	--	--	--	--	2.00E+01	4.17E+01
Crotonaldehyde, trans-		--	--	--	--	4.75E-04	1.18E-02	4.00E+00	8.34E+00
Cyanides		--	--	--	--	--	--	--	--
~Cyanogen		--	--	--	--	--	--	4.00E+00	8.34E+00
~Cyanogen Bromide		--	--	--	--	--	--	3.60E+02	7.51E+02
~Cyanogen Chloride		--	--	--	--	--	--	2.00E+02	4.17E+02
~Thiocyanic Acid		--	--	--	--	--	--	8.00E-01	1.67E+00
Cyclohexylamine		--	--	--	--	--	--	8.00E+02	1.67E+03
Dibromochloromethane		2.70E-05	2.08E-01	--	--	2.70E-05	2.08E-01	8.00E+01	1.67E+02
Dibromoethane, 1,2-		6.00E-04	9.36E-03	9.00E+00	1.88E+01	7.10E-05	7.91E-02	8.00E-01	1.67E+00
Dichloroethane, 1,1-		1.60E-06	3.51E+00	--	--	1.60E-06	3.51E+00	8.00E+02	1.67E+03
Dichloroethylene, 1,2-cis-		--	--	--	--	--	--	8.00E+00	1.67E+01
Dichloroethylene, 1,2-trans-		--	--	--	--	--	--	8.00E+01	1.67E+02
Dichloropropane, 1,3-		--	--	--	--	--	--	8.00E+01	1.67E+02

Table B-6. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed via Inhalation to Volatile Compounds during Domestic Use of Water

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Carcinogenic Adjustment Factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Mutagenic Adjustment Factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		µg/L
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Volatilization Factor	VF	0.5	0.5	L/m^3

Risk and Hazard Equations

Cancer Risk:

Carcinogens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ED_r \times ET_r \times VF}$$

Mutagens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left(\begin{array}{c} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times VF}$$

Trichloroethene:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ET_r \times VF \times \left\{[CAF_I \times ED_r \times EF_r] + \left[MAF_I \times \left(\begin{array}{c} ED_{0-2} \times EF_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ADAF_{2-6} \\ +ED_{6-16} \times EF_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$RSL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times VF}{AT_c \times 365\frac{days}{year}}\right) + (IUR \times VF)}$$

Noncancer Hazard:

$$RSL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times VF}$$

		Residential USEPA RSL_{inh}				Residential DTSC-SL_{inh}			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)
Diethylformamide		--	--	--	--	--	--	4.00E+00	8.34E+00
Diisopropyl Methylphosphonate		--	--	--	--	--	--	3.20E+02	6.67E+02
Dimethylaniline, N,N-		--	--	--	--	--	--	8.00E+00	1.67E+01
Dithiane, 1,4-		--	--	--	--	--	--	4.00E+01	8.34E+01
Endosulfan		--	--	--	--	--	--	2.40E+01	5.01E+01
Epichlorohydrin		1.20E-06	4.68E+00	1.00E+00	2.09E+00	2.30E-05	2.44E-01	3.00E+00	6.26E+00
Ethyl Acrylate		--	--	8.00E+00	1.67E+01	1.20E-05	4.68E-01	8.00E+00	1.67E+01
Ethyl Chloride (Chloroethane)		--	--	1.00E+04	2.09E+04	1.18E-06	4.78E+00	3.00E+04	6.26E+04
Ethyl Ether		--	--	--	--	--	--	8.00E+02	1.67E+03
Ethylene Diamine		--	--	--	--	--	--	3.60E+02	7.51E+02
Furans		--	--	--	--	--	--	--	--
~Furan		--	--	--	--	--	--	4.00E+00	8.34E+00
Guanidine		--	--	--	--	--	--	4.00E+01	8.34E+01
Hexabromobenzene		--	--	--	--	--	--	8.00E+00	1.67E+01
Hexachlorobenzene		4.60E-04	1.22E-02	--	--	5.10E-04	1.10E-02	3.20E+00	6.67E+00
Isobutyl Alcohol		--	--	--	--	--	--	1.20E+03	2.50E+03

Table B-6. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed via Inhalation to Volatile Compounds during Domestic Use of Water

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Carcinogenic Adjustment Factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Mutagenic Adjustment Factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		µg/L
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Volatilization Factor	VF	0.5	0.5	L/m^3

Risk and Hazard Equations

Cancer Risk:

Carcinogens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ED_r \times ET_r \times VF}$$

Mutagens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left(\begin{array}{c} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times VF}$$

Trichloroethene:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ET_r \times VF \times \left\{[CAF_I \times ED_r \times EF_r] + \left[MAF_I \times \left(\begin{array}{c} ED_{0-2} \times EF_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ADAF_{2-6} \\ +ED_{6-16} \times EF_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$RSL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times VF}{AT_c \times 365\frac{days}{year}}\right) + (IUR \times VF)}$$

Noncancer Hazard:

$$RSL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times VF}$$

		Residential USEPA RSL_{inh}				Residential DTSC-SL_{inh}			
		IUR	**Cancer**	**RfC**	**Noncancer**	**IUR**	**Cancer**	**RfC**	**Noncancer**
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)
Merphos		--	--	--	--	--	--	1.20E-01	2.50E-01
Methyl Acetate		--	--	--	--	--	--	4.00E+03	8.34E+03
Methylene Chloride	M	1.00E-08	2.03E+02	6.00E+02	1.25E+03	1.00E-06	2.03E+00	4.00E+02	8.34E+02
Mineral oils		--	--	--	--	--	--	1.20E+04	2.50E+04
Mirex		5.10E-03	1.10E-03	--	--	5.10E-03	1.10E-03	8.00E-01	1.67E+00
Naled		--	--	--	--	--	--	8.00E+00	1.67E+01
Nitrotoluene, o-		--	--	--	--	5.50E-05	1.02E-01	3.60E+00	7.51E+00
Pentachloroethane		--	--	--	--	2.25E-05	2.50E-01	--	--
Perfluorobutane Sulfonate		--	--	--	--	--	--	8.00E+01	1.67E+02
Phosphorus, White		--	--	--	--	--	--	8.00E-02	1.67E-01
Phthalates		--	--	--	--	--	--	--	--
~Dimethylterephthalate		--	--	--	--	--	--	4.00E+02	8.34E+02
~Aroclor 1016		2.00E-05	2.81E-01	--	--	2.00E-05	2.81E-01	2.80E-01	5.84E-01
~Aroclor 1254		5.70E-04	9.85E-03	--	--	5.70E-04	9.85E-03	8.00E-02	1.67E-01
~Aroclor 5460		--	--	--	--	--	--	2.40E+00	5.01E+00
Propargyl Alcohol		--	--	--	--	--	--	8.00E+00	1.67E+01

Table B-6. USEPA RSLs and DTSC-SLs for a Residential Receptor Exposed via Inhalation to Volatile Compounds during Domestic Use of Water

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-26	$ADAF_{16-26}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
Carcinogenic Adjustment Factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-26	ED_{16-26}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Mutagenic Adjustment Factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
(Regional) Screening Level, inhalation	$(R)SL_{inh}$	derived herein		µg/L
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Volatilization Factor	VF	0.5	0.5	L/m^3

Risk and Hazard Equations

Cancer Risk:

Carcinogens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ED_r \times ET_r \times VF}$$

Mutagens:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{days}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left(\begin{array}{c} ED_{0-2} \times IUR \times ADAF_{0-2} + ED_{2-6} \times IUR \times ADAF_{2-6} + \\ ED_{6-16} \times IUR \times ADAF_{6-16} + ED_{16-26} \times IUR \times ADAF_{16-26} \end{array}\right) \times VF}$$

Trichloroethene:

$$RSL_{inh} = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ET_r \times VF \times \left\{[CAF_I \times ED_r \times EF_r] + \left[MAF_I \times \left(\begin{array}{c} ED_{0-2} \times EF_r \times ADAF_{0-2} + ED_{2-6} \times EF_r \times ADAF_{2-6} \\ +ED_{6-16} \times EF_r \times ADAF_{6-16} + ED_{16-26} \times EF_r \times ADAF_{16-26} \end{array}\right)\right]\right\}}$$

Vinyl Chloride:

$$RSL_{inh} = \frac{TR}{\left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour} \times VF}{AT_c \times 365\frac{days}{year}}\right) + (IUR \times VF)}$$

Noncancer Hazard:

$$RSL_{inh} = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ED_c \times ET_r \times \frac{1}{RfC} \times VF}$$

		Residential USEPA RSL_{inh}				Residential DTSC-SL_{inh}			
		IUR	**Cancer**	**RfC**	**Noncancer**	**IUR**	**Cancer**	**RfC**	**Noncancer**
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)	(µg/m^3)$^{-1}$	(µg/L)	(µg/m^3)	(µg/L)
Propylene Glycol Monoethyl Ether		--	--	--	--	--	--	2.80E+03	5.84E+03
Pyridine		--	--	--	--	--	--	4.00E+00	8.34E+00
Tetrachloroethane, 1,1,2,2-		5.80E-05	9.68E-02	--	--	5.80E-05	9.68E-02	8.00E+01	1.67E+02
Tetrachloroethylene		2.60E-07	2.16E+01	4.00E+01	8.34E+01	5.90E-06	9.52E-01	3.50E+01	7.30E+01
Thallium Acetate		--	--	--	--	--	--	2.40E-02	5.01E-02
Trichloroethane, 1,1,1-		--	--	5.00E+03	1.04E+04	--	--	1.00E+03	2.09E+03
Trichloropropane, 1,1,2-		--	--	--	--	--	--	2.00E+01	4.17E+01
Trichloropropane, 1,2,3-	M	--	--	3.00E-01	6.26E-01	7.50E-03	2.70E-04	3.00E-01	6.26E-01
Additional Analytes									
Chloropropane, 2-		--	--	--	--	--	--	1.00E+02	2.09E+02
Dichlorobenzene, 1,3-		--	--	--	--	--	--	1.20E+02	2.50E+02
Methylcyclohexane		--	--	--	--	--	--	6.00E+03	1.25E+04

Table C-1. DTSC-Recommended Ambient-Air Screening Levels

		Toxicity Factor for Final Screening Value				Screening Levels for Residential Air ($\mu g/m^3$)								Screening Levels for Commercial/Industrial Air ($\mu g/m^3$)							
		Inhalation Unit Risk, IUR		Reference Concentration, RfC or REL		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint	
Analyte	CAS #	$(\mu g/m^3)^{-1}$	Source	($\mu g/m^3$)	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source
USEPA RSL Analytes																					
Acetaldehyde	75-07-0	2.7E-06	OEHHA	9.0E+00	IRIS	1.28E+00	1.04E+00	1.0E+00	DTSC	9.39E+00	9.39E+00	9.4E+00	USEPA	5.57E+00	4.54E+00	4.5E+00	DTSC	3.94E+01	3.94E+01	3.9E+01	USEPA
Acetone	67-64-1	--	--	3.1E+04	ATSDR	--	--	--	--	3.23E+04	3.23E+04	3.2E+04	USEPA	--	--	--	--	1.36E+05	1.36E+05	1.4E+05	USEPA
Acetone Cyanohydrin	75-86-5	--	--	2.0E+00	Screening PPRTV	--	--	--	--	2.09E+00	2.09E+00	2.1E+00	USEPA	--	--	--	--	8.76E+00	8.76E+00	8.8E+00	USEPA
Acetonitrile	75-05-8	--	--	6.0E+01	IRIS	--	--	--	--	6.26E+01	6.26E+01	6.3E+01	USEPA	--	--	--	--	2.63E+02	2.63E+02	2.6E+02	USEPA
Acetophenone	98-86-2	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Acrolein	107-02-8	--	--	2.0E-02	IRIS	--	--	--	--	2.09E-02	2.09E-02	2.1E-02	USEPA	--	--	--	--	8.76E-02	8.76E-02	8.8E-02	USEPA
Acrylic Acid	79-10-7	--	--	1.0E+00	IRIS	--	--	--	--	1.04E+00	1.04E+00	1.0E+00	USEPA	--	--	--	--	4.38E+00	4.38E+00	4.4E+00	USEPA
Acrylonitrile	107-13-1	2.9E-04	OEHHA	2.0E+00	IRIS	4.13E-02	9.68E-03	9.7E-03	DTSC	2.09E+00	2.09E+00	2.1E+00	USEPA	1.80E-01	4.23E-02	4.2E-02	DTSC	8.76E+00	8.76E+00	8.8E+00	USEPA
Aldrin	309-00-2	4.9E-03	IRIS	1.2E-01	Route	5.73E-04	5.73E-04	5.7E-04	USEPA	--	1.25E-01	1.3E-01	DTSC	2.50E-03	2.50E-03	2.5E-03	USEPA	--	5.26E-01	5.3E-01	DTSC
Allyl Alcohol	107-18-6	--	--	1.0E-01	Screening PPRTV	--	--	--	--	1.04E-01	1.04E-01	1.0E-01	USEPA	--	--	--	--	4.38E-01	4.38E-01	4.4E-01	USEPA
Allyl Chloride	107-05-1	6.0E-06	OEHHA	1.0E+00	IRIS	4.68E-01	4.68E-01	4.7E-01	USEPA	1.04E+00	1.04E+00	1.0E+00	USEPA	2.04E+00	2.04E+00	2.0E+00	USEPA	4.38E+00	4.38E+00	4.4E+00	USEPA
Ammonia	7664-41-7	--	--	1.0E+02	IRIS	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Amyl Alcohol, tert-	75-85-4	--	--	3.0E+00	Screening PPRTV	--	--	--	--	3.13E+00	3.13E+00	3.1E+00	USEPA	--	--	--	--	1.31E+01	1.31E+01	1.3E+01	USEPA
Azobenzene	103-33-3	3.1E-05	IRIS	--	--	9.06E-02	9.06E-02	9.1E-02	USEPA	--	--	--	--	3.96E-01	3.96E-01	4.0E-01	USEPA	--	--	--	--
Benefin	1861-40-1	--	--	1.2E+03	Route	--	--	--	--	--	1.25E+03	1.3E+03	DTSC	--	--	--	--	--	5.26E+03	5.3E+03	DTSC
Benzaldehyde	100-52-7	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Benzene	71-43-2	2.9E-05	OEHHA	3.0E+00	OEHHA	3.60E-01	9.68E-02	9.7E-02	DTSC	3.13E+01	3.13E+00	3.1E+00	DTSC	1.57E+00	4.23E-01	4.2E-01	DTSC	1.31E+02	1.31E+01	1.3E+01	DTSC
Benzenethiol	108-98-5	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
Benzotrichloride	98-07-7	3.3E-03	Route	--	--	--	8.64E-04	8.6E-04	DTSC	--	--	--	--	--	3.77E-03	3.8E-03	DTSC	--	--	--	--
Benzyl Chloride	100-44-7	4.9E-05	OEHHA	1.0E+00	PPRTV	5.73E-02	5.73E-02	5.7E-02	USEPA	1.04E+00	1.04E+00	1.0E+00	USEPA	2.50E-01	2.50E-01	2.5E-01	USEPA	4.38E+00	4.38E+00	4.4E+00	USEPA
Biphenyl, 1,1'-	92-52-4	2.0E-06	Route	4.0E-01	Screening PPRTV	--	1.40E+00	1.4E+00	DTSC	4.17E-01	4.17E-01	4.2E-01	USEPA	--	6.13E+00	6.1E+00	DTSC	1.75E+00	1.75E+00	1.8E+00	USEPA
Bis(2-chloro-1-methylethyl) ether	108-60-1	1.0E-05	HEAST	1.6E+02	Route	2.81E-01	2.81E-01	2.8E-01	USEPA	--	1.67E+02	1.7E+02	DTSC	1.23E+00	1.23E+00	1.2E+00	USEPA	--	7.01E+02	7.0E+02	DTSC
Bis(2-chloroethyl)ether	111-44-4	7.1E-04	OEHHA	--	--	8.51E-03	3.95E-03	4.0E-03	DTSC	--	--	--	--	3.72E-02	1.73E-02	1.7E-02	DTSC	--	--	--	--
Bis(chloromethyl)ether	542-88-1	6.2E-02	IRIS	--	--	4.53E-05	4.53E-05	4.5E-05	USEPA	--	--	--	--	1.98E-04	1.98E-04	2.0E-04	USEPA	--	--	--	--
Boron Trichloride	10294-34-5	--	--	2.0E+01	PPRTV	--	--	--	--	2.09E+01	2.09E+01	2.1E+01	USEPA	--	--	--	--	8.76E+01	8.76E+01	8.8E+01	USEPA
Boron Trifluoride	7637-07-2	--	--	7.0E-01	HEAST	--	--	--	--	1.36E+01	7.30E-01	7.3E-01	DTSC	--	--	--	--	5.69E+01	3.07E+00	3.1E+00	DTSC
Bromo-2-chloroethane, 1-	107-04-0	6.0E-04	Screening PPRTV	--	--	4.68E-03	4.68E-03	4.7E-03	USEPA	--	--	--	--	2.04E-02	2.04E-02	2.0E-02	USEPA	--	--	--	--
Bromobenzene	108-86-1	--	--	6.0E+01	IRIS	--	--	--	--	6.26E+01	6.26E+01	6.3E+01	USEPA	--	--	--	--	2.63E+02	2.63E+02	2.6E+02	USEPA
Bromochloromethane	74-97-5	--	--	4.0E+01	Screening PPRTV	--	--	--	--	4.17E+01	4.17E+01	4.2E+01	USEPA	--	--	--	--	1.75E+02	1.75E+02	1.8E+02	USEPA
Bromodichloromethane	75-27-4	3.7E-05	OEHHA	8.0E+01	Route	7.59E-02	7.59E-02	7.6E-02	USEPA	--	8.34E+01	8.3E+01	DTSC	3.31E-01	3.31E-01	3.3E-01	USEPA	--	3.50E+02	3.5E+02	DTSC
Bromoform	75-25-2	1.1E-06	IRIS	8.0E+01	Route	2.55E+00	2.55E+00	2.6E+00	USEPA	--	8.34E+01	8.3E+01	DTSC	1.11E+01	1.11E+01	1.1E+01	USEPA	--	3.50E+02	3.5E+02	DTSC
Bromomethane	74-83-9	--	--	5.0E+00	IRIS	--	--	--	--	5.21E+00	5.21E+00	5.2E+00	USEPA	--	--	--	--	2.19E+01	2.19E+01	2.2E+01	USEPA
Bromophos	2104-96-3	--	--	2.0E+01	Route	--	--	--	--	--	2.09E+01	2.1E+01	DTSC	--	--	--	--	--	8.76E+01	8.8E+01	DTSC
Bromoxynil Octanoate	1689-99-2	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Butadiene, 1,3-	106-99-0	1.7E-04	OEHHA	2.0E+00	IRIS	9.36E-02	1.65E-02	1.7E-02	DTSC	2.09E+00	2.09E+00	2.1E+00	USEPA	4.09E-01	7.21E-02	7.2E-02	DTSC	8.76E+00	8.76E+00	8.8E+00	USEPA
Butanol, N-	71-36-3	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Butyl alcohol, sec-	78-92-2	--	--	3.0E+04	PPRTV	--	--	--	--	3.13E+04	3.13E+04	3.1E+04	USEPA	--	--	--	--	1.31E+05	1.31E+05	1.3E+05	USEPA
Butylate	2008-41-5	--	--	2.0E+02	Route	--	--	--	--	--	2.09E+02	2.1E+02	DTSC	--	--	--	--	--	8.76E+02	8.8E+02	DTSC
Butylbenzene, n-	104-51-8	--	--	2.0E+02	Route	--	--	--	--	--	2.09E+02	2.1E+02	DTSC	--	--	--	--	--	8.76E+02	8.8E+02	DTSC
Butylbenzene, sec-	135-98-8	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Butylbenzene, tert-	98-06-6	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Carbon Disulfide	75-15-0	--	--	7.0E+02	IRIS	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Carbon Tetrachloride	56-23-5	4.2E-05	OEHHA	4.0E+01	OEHHA	4.68E-01	6.68E-02	6.7E-02	DTSC	1.04E+02	4.17E+01	4.2E+01	DTSC	2.04E+00	2.92E-01	2.9E-01	DTSC	4.38E+02	1.75E+02	1.8E+02	DTSC
Chloral Hydrate	302-17-0	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Chlordane	12789-03-6	3.4E-04	OEHHA	7.0E-01	IRIS	2.81E-02	8.26E-03	8.3E-03	DTSC	7.30E-01	7.30E-01	7.3E-01	USEPA	1.23E-01	3.61E-02	3.6E-02	DTSC	3.07E+00	3.07E+00	3.1E+00	USEPA
Chlorine	7782-50-5	--	--	1.5E-01	ATSDR	--	--	--	--	1.56E-01	1.56E-01	1.6E-01	USEPA	--	--	--	--	6.57E-01	6.57E-01	6.6E-01	USEPA
Chlorine Dioxide	10049-04-4	--	--	2.0E-01	IRIS	--	--	--	--	2.09E-01	2.09E-01	2.1E-01	USEPA	--	--	--	--	8.76E-01	8.76E-01	8.8E-01	USEPA
Chloro-1,1-difluoroethane, 1-	75-68-3	--	--	5.0E+04	IRIS	--	--	--	--	5.21E+04	5.21E+04	5.2E+04	USEPA	--	--	--	--	2.19E+05	2.19E+05	2.2E+05	USEPA
Chloro-1,3-butadiene, 2-	126-99-8	3.0E-04	IRIS	2.0E+01	IRIS	9.36E-03	9.36E-03	9.4E-03	USEPA	2.09E+01	2.09E+01	2.1E+01	USEPA	4.09E-02	4.09E-02	4.1E-02	USEPA	8.76E+01	8.76E+01	8.8E+01	USEPA
Chloroacetaldehyde, 2-	107-20-0	6.8E-05	Route	--	--	--	4.16E-02	4.2E-02	DTSC	--	--	--	--	--	1.82E-01	1.8E-01	DTSC	--	--	--	--
Chlorobenzene	108-90-7	--	--	5.0E+01	PPRTV	--	--	--	--	5.21E+01	5.21E+01	5.2E+01	USEPA	--	--	--	--	2.19E+02	2.19E+02	2.2E+02	USEPA
Chlorobenzotrifluoride, 4-	98-56-6	--	--	3.0E+02	PPRTV	--	--	--	--	3.13E+02	3.13E+02	3.1E+02	USEPA	--	--	--	--	1.31E+03	1.31E+03	1.3E+03	USEPA
Chlorobutane, 1-	109-69-3	--	--	1.6E+02	Route	--	--	--	--	--	1.67E+02	1.7E+02	DTSC	--	--	--	--	--	7.01E+02	7.0E+02	DTSC
Chlorodifluoromethane	75-45-6	--	--	5.0E+04	IRIS	--	--	--	--	5.21E+04	5.21E+04	5.2E+04	USEPA	--	--	--	--	2.19E+05	2.19E+05	2.2E+05	USEPA
Chloroethanol, 2-	107-07-3	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Chloroform	67-66-3	2.3E-05	IRIS	9.8E+01	ATSDR	1.22E-01	1.22E-01	1.2E-01	USEPA	1.02E+02	1.02E+02	1.0E+02	USEPA	5.33E-01	5.33E-01	5.3E-01	USEPA	4.29E+02	4.29E+02	4.3E+02	USEPA
Chloromethane	74-87-3	--	--	9.0E+01	IRIS	--	--	--	--	9.39E+01	9.39E+01	9.4E+01	USEPA	--	--	--	--	3.94E+02	3.94E+02	3.9E+02	USEPA
Chloromethyl Methyl Ether	107-30-2	6.9E-04	OEHHA	--	--	4.07E-03	4.07E-03	4.1E-03	USEPA	--	--	--	--	1.78E-02	1.78E-02	1.8E-02	USEPA	--	--	--	--
Chlorophenol, 2-	95-57-8	--	--	2.0E+01	Route	--	--	--	--	--	2.09E+01	2.1E+01	DTSC	--	--	--	--	--	8.76E+01	8.8E+01	DTSC
Chloropicrin	76-06-2	--	--	4.0E-01	OEHHA	--	--	--	--	4.17E-01	4.17E-01	4.2E-01	USEPA	--	--	--	--	1.75E+00	1.75E+00	1.8E+00	USEPA
Chlorotoluene, o-	95-49-8	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Chlorotoluene, p-	106-43-4	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Coke Oven Emissions	Coke Oven Emissions	6.2E-04	IRIS	--	--	1.64E-03	1.64E-03	1.6E-03	USEPA	--	--	--	--	1.98E-02	1.98E-02	2.0E-02	USEPA	--	--	--	--
Crotonaldehyde, trans-	123-73-9	4.8E-04	Route	4.0E+00	Route	--	5.91E-03	5.9E-03	DTSC	--	4.17E+00	4.2E+00	DTSC	--	2.58E-02	2.6E-02	DTSC	--	1.75E+01	1.8E+01	DTSC
Cumene	98-82-8	--	--	4.0E+02	IRIS	--	--	--	--	4.17E+02	4.17E+02	4.2E+02	USEPA	--	--	--	--	1.75E+03	1.75E+03	1.8E+03	USEPA
Cyanides	Cyanides	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Cyanide (CN-)	57-12-5	--	--	8.0E-01	RSL; Hydrogen cyanide	--	--	--	--	8.34E-01	8.34E-01	8.3E-01	USEPA	--	--	--	--	3.50E+00	3.50E+00	3.5E+00	USEPA
~Cyanogen	460-19-5	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
~Cyanogen Bromide	506-68-3	--	--	3.6E+02	Route	--	--	--	--	--	3.75E+02	3.8E+02	DTSC	--	--	--	--	--	1.58E+03	1.6E+03	DTSC
~Cyanogen Chloride	506-77-4	--	--	2.0E+02	Route	--	--	--	--	--	2.09E+02	2.1E+02	DTSC	--	--	--	--	--	8.76E+02	8.8E+02	DTSC
~Hydrogen Cyanide	74-90-8	--	--	8.0E-01	IRIS	--	--	--	--	8.34E-01	8.34E-01	8.3E-01	USEPA	--	--	--	--	3.50E+00	3.50E+00	3.5E+00	USEPA
~Thiocyanic Acid	463-56-9	--	--	8.0E-01	Route	--	--	--	--	--	8.34E-01	8.3E-01	DTSC	--	--	--	--	--	3.50E+00	3.5E+00	DTSC
Cyclohexane	110-82-7	--	--	6.0E+03	IRIS	--	--	--	--	6.26E+03	6.26E+03	6.3E+03	USEPA	--	--	--	--	2.63E+04	2.63E+04	2.6E+04	USEPA
Cyclohexanone	108-94-1	--	--	7.0E+02	PPRTV	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Cyclohexene	110-83-8	--	--	1.0E+03	Screening PPRTV	--	--	--	--	1.04E+03	1.04E+03	1.0E+03	USEPA	--	--	--	--	4.38E+03	4.38E+03	4.4E+03	USEPA
Cyclohexylamine	108-91-8	--	--	8.0E+02	Route	--	--	--	--	--	8.34E+02	8.3E+02	DTSC	--	--	--	--	--	3.50E+03	3.5E+03	DTSC

Table C-1. DTSC-Recommended Ambient-Air Screening Levels

		Toxicity Factor for Final Screening Value				Screening Levels for Residential Air (µg/m³)								Screening Levels for Commercial/Industrial Air (µg/m³)							
		Inhalation Unit Risk, IUR		Reference Concentration, RfC or REL		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint	
Analyte	CAS #	(µg/m³)⁻¹	Source	(µg/m³)	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source
DDE, p,p'-	72-55-9	9.7E-05	OEHHA	--	--	2.89E-02	2.89E-02	2.9E-02	USEPA	--	--	--	--	1.26E-01	1.26E-01	1.3E-01	USEPA	--	--	--	--
Dibenzothiophene	132-65-0	--	--	4.0E+01	Route	--	--	--	--	--	4.17E+01	4.2E+01	DTSC	--	--	--	--	--	1.75E+02	1.8E+02	DTSC
Dibromo-3-chloropropane, 1,2-	96-12-8	6.0E-03	PPRTV	2.0E-01	IRIS	1.69E-04	1.69E-04	1.7E-04	USEPA	2.09E-01	2.09E-01	2.1E-01	USEPA	2.04E-03	2.04E-03	2.0E-03	USEPA	8.76E-01	8.76E-01	8.8E-01	USEPA
Dibromobenzene, 1,3-	108-36-1	--	--	1.6E+00	Route	--	--	--	--	--	1.67E+00	1.7E+00	DTSC	--	--	--	--	--	7.01E+00	7.0E+00	DTSC
Dibromobenzene, 1,4-	106-37-6	--	--	4.0E+01	Route	--	--	--	--	--	4.17E+01	4.2E+01	DTSC	--	--	--	--	--	1.75E+02	1.8E+02	DTSC
Dibromochloromethane	124-48-1	2.7E-05	OEHHA	8.0E+01	Route	1.04E-01	1.04E-01	1.0E-01	USEPA	--	8.34E+01	8.3E+01	DTSC	4.54E-01	4.54E-01	4.5E-01	USEPA	--	3.50E+02	3.5E+02	DTSC
Dibromoethane, 1,2-	106-93-4	6.0E-04	IRIS	8.0E-01	OEHHA	4.68E-03	4.68E-03	4.7E-03	USEPA	9.39E+00	8.34E-01	8.3E-01	DTSC	2.04E-02	2.04E-02	2.0E-02	USEPA	3.94E+01	3.50E+00	3.5E+00	DTSC
Dibromomethane (Methylene Bromide)	74-95-3	--	--	4.0E+00	Screening PPRTV	--	--	--	--	4.17E+00	4.17E+00	4.2E+00	USEPA	--	--	--	--	1.75E+01	1.75E+01	1.8E+01	USEPA
Dichloro-2-butene, 1,4-	764-41-0	4.2E-03	PPRTV	--	--	6.68E-04	6.68E-04	6.7E-04	USEPA	--	--	--	--	2.92E-03	2.92E-03	2.9E-03	USEPA	--	--	--	--
Dichloro-2-butene, cis-1,4-	1476-11-5	4.2E-03	PPRTV	--	--	6.68E-04	6.68E-04	6.7E-04	USEPA	--	--	--	--	2.92E-03	2.92E-03	2.9E-03	USEPA	--	--	--	--
Dichloro-2-butene, trans-1,4-	110-57-6	4.2E-03	PPRTV	--	--	6.68E-04	6.68E-04	6.7E-04	USEPA	--	--	--	--	2.92E-03	2.92E-03	2.9E-03	USEPA	--	--	--	--
Dichlorobenzene, 1,2-	95-50-1	--	--	2.0E+02	HEAST	--	--	--	--	2.09E+02	2.09E+02	2.1E+02	USEPA	--	--	--	--	8.76E+02	8.76E+02	8.8E+02	USEPA
Dichlorobenzene, 1,4-	106-46-7	1.1E-05	OEHHA	8.0E+02	IRIS	2.55E-01	2.55E-01	2.6E-01	USEPA	8.34E+02	8.34E+02	8.3E+02	USEPA	1.11E+00	1.11E+00	1.1E+00	USEPA	3.50E+03	3.50E+03	3.5E+03	USEPA
Dichlorodifluoromethane	75-71-8	--	--	1.0E+02	Screening PPRTV	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Dichloroethane, 1,1-	75-34-3	1.6E-06	OEHHA	8.0E+02	Route	1.75E+00	1.75E+00	1.8E+00	USEPA	--	8.34E+02	8.3E+02	DTSC	7.67E+00	7.67E+00	7.7E+00	USEPA	--	3.50E+03	3.5E+03	DTSC
Dichloroethane, 1,2-	107-06-2	2.6E-05	IRIS	7.0E+00	PPRTV	1.08E-01	1.08E-01	1.1E-01	USEPA	7.30E+00	7.30E+00	7.3E+00	USEPA	4.72E-01	4.72E-01	4.7E-01	USEPA	3.07E+01	3.07E+01	3.1E+01	USEPA
Dichloroethylene, 1,1-	75-35-4	--	--	7.0E+01	OEHHA	--	--	--	--	2.09E+02	7.30E+01	7.3E+01	DTSC	--	--	--	--	8.76E+02	3.07E+02	3.1E+02	DTSC
Dichloroethylene, 1,2-cis-	156-59-2	--	--	8.0E+00	Route	--	--	--	--	--	8.34E+00	8.3E+00	DTSC	--	--	--	--	--	3.50E+01	3.5E+01	DTSC
Dichloroethylene, 1,2-trans-	156-60-5	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Dichloropropane, 1,2-	78-87-5	1.0E-05	OEHHA	4.0E+00	IRIS	2.81E-01	2.81E-01	2.8E-01	USEPA	4.17E+00	4.17E+00	4.2E+00	USEPA	1.23E+00	1.23E+00	1.2E+00	USEPA	1.75E+01	1.75E+01	1.8E+01	USEPA
Dichloropropane, 1,3-	142-28-9	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Dichloropropene, 1,3-	542-75-6	1.6E-05	OEHHA	2.0E+01	IRIS	7.02E-01	1.75E-01	1.8E-01	DTSC	2.09E+01	2.09E+01	2.1E+01	USEPA	3.07E+00	7.67E-01	7.7E-01	DTSC	8.76E+01	8.76E+01	8.8E+01	USEPA
Dicyclopentadiene	77-73-6	--	--	3.0E-01	Screening PPRTV	--	--	--	--	3.13E-01	3.13E-01	3.1E-01	USEPA	--	--	--	--	1.31E+00	1.31E+00	1.3E+00	USEPA
Dieldrin	60-57-1	4.6E-03	IRIS	2.0E-01	Route	6.10E-04	6.10E-04	6.1E-04	USEPA	--	2.09E-01	2.1E-01	DTSC	2.67E-03	2.67E-03	2.7E-03	USEPA	--	8.76E-01	8.8E-01	DTSC
Diethylformamide	617-84-5	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
Difluoroethane, 1,1-	75-37-6	--	--	4.0E+04	IRIS	--	--	--	--	4.17E+04	4.17E+04	4.2E+04	USEPA	--	--	--	--	1.75E+05	1.75E+05	1.8E+05	USEPA
Dihydrosafrole	94-58-6	1.3E-05	OEHHA	--	--	2.16E-01	2.16E-01	2.2E-01	USEPA	--	--	--	--	9.43E-01	9.43E-01	9.4E-01	USEPA	--	--	--	--
Diisopropyl Ether	108-20-3	--	--	7.0E+02	PPRTV	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Diisopropyl Methylphosphonate	1445-75-6	--	--	3.2E+02	Route	--	--	--	--	--	3.34E+02	3.3E+02	DTSC	--	--	--	--	--	1.40E+03	1.4E+03	DTSC
Dimethylaniline, N,N-	121-69-7	--	--	8.0E+00	Route	--	--	--	--	--	8.34E+00	8.3E+00	DTSC	--	--	--	--	--	3.50E+01	3.5E+01	DTSC
Dimethylformamide	68-12-2	--	--	3.0E+01	IRIS	--	--	--	--	3.13E+01	3.13E+01	3.1E+01	USEPA	--	--	--	--	1.31E+02	1.31E+02	1.3E+02	USEPA
Dimethylhydrazine, 1,1-	57-14-7	--	--	2.0E-03	Screening PPRTV	--	--	--	--	2.09E-03	2.09E-03	2.1E-03	USEPA	--	--	--	--	8.76E-03	8.76E-03	8.8E-03	USEPA
Dimethylhydrazine, 1,2-	540-73-8	1.6E-01	OEHHA	--	--	1.75E-05	1.75E-05	1.8E-05	USEPA	--	--	--	--	7.67E-05	7.67E-05	7.7E-05	USEPA	--	--	--	--
Dimethylvinylchloride	513-37-1	1.3E-05	OEHHA	--	--	2.16E-01	2.16E-01	2.2E-01	USEPA	--	--	--	--	9.43E-01	9.43E-01	9.4E-01	USEPA	--	--	--	--
Dioxane, 1,4-	123-91-1	7.7E-06	OEHHA	3.0E+01	IRIS	5.62E-01	3.65E-01	3.6E-01	DTSC	3.13E+01	3.13E+01	3.1E+01	USEPA	2.45E+00	1.59E+00	1.6E+00	DTSC	1.31E+02	1.31E+02	1.3E+02	USEPA
Dioxins	Dioxins	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~TCDD, 2,3,7,8-	1746-01-6	3.8E+01	OEHHA	4.0E-05	OEHHA	7.39E-08	7.39E-08	7.4E-08	USEPA	4.17E-05	4.17E-05	4.2E-05	USEPA	3.23E-07	3.23E-07	3.2E-07	USEPA	1.75E-04	1.75E-04	1.8E-04	USEPA
Dithiane, 1,4-	505-29-3	--	--	4.0E+01	Route	--	--	--	--	--	4.17E+01	4.2E+01	DTSC	--	--	--	--	--	1.75E+02	1.8E+02	DTSC
EPTC	759-94-4	--	--	1.0E+02	Route	--	--	--	--	--	1.04E+02	1.0E+02	DTSC	--	--	--	--	--	4.38E+02	4.4E+02	DTSC
Endosulfan	115-29-7	--	--	2.4E+01	Route	--	--	--	--	--	2.50E+01	2.5E+01	DTSC	--	--	--	--	--	1.05E+02	1.1E+02	DTSC
Epichlorohydrin	106-89-8	2.3E-05	OEHHA	1.0E+00	IRIS	2.34E+00	1.22E-01	1.2E-01	DTSC	1.04E+00	1.04E+00	1.0E+00	USEPA	1.02E+01	5.33E-01	5.3E-01	DTSC	4.38E+00	4.38E+00	4.4E+00	USEPA
Epoxybutane, 1,2-	106-88-7	--	--	2.0E+01	IRIS	--	--	--	--	2.09E+01	2.09E+01	2.1E+01	USEPA	--	--	--	--	8.76E+01	8.76E+01	8.8E+01	USEPA
Ethoxyethanol Acetate, 2-	111-15-9	--	--	6.0E+01	PPRTV	--	--	--	--	6.26E+01	6.26E+01	6.3E+01	USEPA	--	--	--	--	2.63E+02	2.63E+02	2.6E+02	USEPA
Ethoxyethanol, 2-	110-80-5	--	--	7.0E+01	OEHHA	--	--	--	--	2.09E+02	7.30E+01	7.3E+01	DTSC	--	--	--	--	8.76E+02	3.07E+02	3.1E+02	DTSC
Ethyl Acetate	141-78-6	--	--	7.0E+01	PPRTV	--	--	--	--	7.30E+01	7.30E+01	7.3E+01	USEPA	--	--	--	--	3.07E+02	3.07E+02	3.1E+02	USEPA
Ethyl Acrylate	140-88-5	1.2E-05	Route	8.0E+00	PPRTV	--	2.34E-01	2.3E-01	DTSC	8.34E+00	8.34E+00	8.3E+00	USEPA	--	1.02E+00	1.0E+00	DTSC	3.50E+01	3.50E+01	3.5E+01	USEPA
Ethyl Chloride (Chloroethane)	75-00-3	1.2E-06	Route	1.0E+04	IRIS	--	2.39E+00	2.4E+00	DTSC	1.04E+04	1.04E+04	1.0E+04	USEPA	--	1.04E+01	1.0E+01	DTSC	4.38E+04	4.38E+04	4.4E+04	USEPA
Ethyl Ether	60-29-7	--	--	8.0E+02	Route	--	--	--	--	--	8.34E+02	8.3E+02	DTSC	--	--	--	--	--	3.50E+03	3.5E+03	DTSC
Ethyl Methacrylate	97-63-2	--	--	3.0E+02	PPRTV	--	--	--	--	3.13E+02	3.13E+02	3.1E+02	USEPA	--	--	--	--	1.31E+03	1.31E+03	1.3E+03	USEPA
Ethylbenzene	100-41-4	2.5E-06	OEHHA	1.0E+03	IRIS	1.12E+00	1.12E+00	1.1E+00	USEPA	1.04E+03	1.04E+03	1.0E+03	USEPA	4.91E+00	4.91E+00	4.9E+00	USEPA	4.38E+03	4.38E+03	4.4E+03	USEPA
Ethylene Diamine	107-15-3	--	--	3.6E+02	Route	--	--	--	--	--	3.75E+02	3.8E+02	DTSC	--	--	--	--	--	1.58E+03	1.6E+03	DTSC
Ethylene Oxide	75-21-8	8.8E-05	OEHHA	3.0E+01	OEHHA	3.19E-02	3.19E-02	3.2E-02	USEPA	3.13E+01	3.13E+01	3.1E+01	USEPA	1.39E-01	1.39E-01	1.4E-01	USEPA	1.31E+02	1.31E+02	1.3E+02	USEPA
Ethyleneimine	151-56-4	1.9E-02	OEHHA	--	--	1.48E-04	1.48E-04	1.5E-04	USEPA	--	--	--	--	6.45E-04	6.45E-04	6.5E-04	USEPA	--	--	--	--
Formaldehyde	50-00-0	1.3E-05	IRIS	9.0E+00	OEHHA	2.16E-01	2.16E-01	2.2E-01	USEPA	1.02E+01	9.39E+00	9.4E+00	DTSC	9.43E-01	9.43E-01	9.4E-01	USEPA	4.29E+01	3.94E+01	3.9E+01	DTSC
Formic Acid	64-18-6	--	--	3.0E-01	Screening PPRTV	--	--	--	--	3.13E-01	3.13E-01	3.1E-01	USEPA	--	--	--	--	1.31E+00	1.31E+00	1.3E+00	USEPA
Furans	Furans	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Dibenzofuran	132-64-9	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
~Furan	110-00-9	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
~Tetrahydrofuran	109-99-9	--	--	2.0E+03	IRIS	--	--	--	--	2.09E+03	2.09E+03	2.1E+03	USEPA	--	--	--	--	8.76E+03	8.76E+03	8.8E+03	USEPA
Furfural	98-01-1	--	--	5.0E+01	HEAST	--	--	--	--	5.21E+01	5.21E+01	5.2E+01	USEPA	--	--	--	--	2.19E+02	2.19E+02	2.2E+02	USEPA
Glycidyl	765-34-4	--	--	1.0E+00	HEAST	--	--	--	--	1.04E+00	1.04E+00	1.0E+00	USEPA	--	--	--	--	4.38E+00	4.38E+00	4.4E+00	USEPA
Guanidine	113-00-8	--	--	4.0E+01	Route	--	--	--	--	--	4.17E+01	4.2E+01	DTSC	--	--	--	--	--	1.75E+02	1.8E+02	DTSC
Heptachlor	76-44-8	1.3E-03	IRIS	2.0E+00	Route	2.16E-03	2.16E-03	2.2E-03	USEPA	--	2.09E+00	2.1E+00	DTSC	9.43E-03	9.43E-03	9.4E-03	USEPA	--	8.76E+00	8.8E+00	DTSC
Heptachlor Epoxide	1024-57-3	2.6E-03	IRIS	5.2E-02	Route	1.08E-03	1.08E-03	1.1E-03	USEPA	--	5.42E-02	5.4E-02	DTSC	4.72E-03	4.72E-03	4.7E-03	USEPA	--	2.28E-01	2.3E-01	DTSC
Hexabromobenzene	87-82-1	--	--	8.0E+00	Route	--	--	--	--	--	8.34E+00	8.3E+00	DTSC	--	--	--	--	--	3.50E+01	3.5E+01	DTSC
Hexachlorobenzene	118-74-1	5.1E-04	OEHHA	3.2E+00	Route	6.10E-03	5.51E-03	5.5E-03	DTSC	--	3.34E+00	3.3E+00	DTSC	2.67E-02	2.40E-02	2.4E-02	DTSC	--	1.40E+01	1.4E+01	DTSC
Hexachlorobutadiene	87-68-3	2.2E-05	IRIS	4.0E+00	Route	1.28E-01	1.28E-01	1.3E-01	USEPA	--	4.17E+00	4.2E+00	DTSC	5.57E-01	5.57E-01	5.6E-01	USEPA	--	1.75E+01	1.8E+01	DTSC
Hexachlorocyclohexane, Alpha-	319-84-6	1.8E-03	IRIS	3.2E+01	Route	1.56E-03	1.56E-03	1.6E-03	USEPA	--	3.34E+01	3.3E+01	DTSC	6.81E-03	6.81E-03	6.8E-03	USEPA	--	1.40E+02	1.4E+02	DTSC
Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	3.1E-04	OEHHA	1.2E+00	Route	9.06E-03	9.06E-03	9.1E-03	USEPA	--	1.25E+00	1.3E+00	DTSC	3.96E-02	3.96E-02	4.0E-02	USEPA	--	5.26E+00	5.3E+00	DTSC
Hexachlorocyclopentadiene	77-47-4	--	--	2.0E-01	IRIS	--	--	--	--	2.09E-01	2.09E-01	2.1E-01	USEPA	--	--	--	--	8.76E-01	8.76E-01	8.8E-01	USEPA
Hexachloroethane	67-72-1	1.1E-05	OEHHA	3.0E+01	IRIS	2.55E-01	2.55E-01	2.6E-01	USEPA	3.13E+01	3.13E+01	3.1E+01	USEPA	1.11E+00	1.11E+00	1.1E+00	USEPA	1.31E+02	1.31E+02	1.3E+02	USEPA
Hexamethylene Diisocyanate, 1,6-	822-06-0	--	--	1.0E-02	IRIS	--	--	--	--	1.04E-02	1.04E-02	1.0E-02	USEPA	--	--	--	--	4.38E-02	4.38E-02	4.4E-02	USEPA
Hexane, N-	110-54-3	--	--	7.0E+02	IRIS	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Hexanone, 2-	591-78-6	--	--	3.0E+01	IRIS	--	--	--	--	3.13E+01	3.13E+01	3.1E+01	USEPA	--	--	--	--	1.31E+02	1.31E+02	1.3E+02	USEPA
Hydrazine	302-01-2	4.9E-03	IRIS	3.0E-02	PPRTV	5.73E-04	5.73E-04	5.7E-04	USEPA	3.13E-02	3.13E-02	3.1E-02	USEPA	2.50E-03	2.50E-03	2.5E-03	USEPA	1.31E-01	1.31E-01	1.3E-01	USEPA
Hydrogen Chloride	7647-01-0	--	--	9.0E+00	OEHHA	--	--	--	--	2.09E+01	9.39E+00	9.4E+00	DTSC	--	--	--	--	8.76E+01	3.94E+01	3.9E+01	DTSC
Hydrogen Fluoride	7664-39-3	--	--	1.4E+01	OEHHA	--	--	--	--	1.46E+01	1.46E+01	1.5E+01	USEPA	--	--	--	--	6.13E+01	6.13E+01	6.1E+01	USEPA

Table C-1. DTSC-Recommended Ambient-Air Screening Levels

		Toxicity Factor for Final Screening Value				Screening Levels for Residential Air (µg/m³)								Screening Levels for Commercial/Industrial Air (µg/m³)							
		Inhalation Unit Risk, IUR		Reference Concentration, RfC or REL		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint	
Analyte	CAS #	(µg/m³)⁻¹	Source	(µg/m³)	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source	USEPA RSL	DTSC-SL	Final Value	Source
Hydrogen Sulfide	7783-06-4	--	--	2.0E+00	IRIS	--	--	--	--	2.09E+00	2.09E+00	2.1E+00	USEPA	--	--	--	--	8.76E+00	8.76E+00	8.8E+00	USEPA
Isobutyl Alcohol	78-83-1	--	--	1.2E+03	Route	--	--	--	--	--	1.25E+03	1.3E+03	DTSC	--	--	--	--	--	5.26E+03	5.3E+03	DTSC
Isopropalin	33820-53-0	--	--	6.0E+01	Route	--	--	--	--	--	6.26E+01	6.3E+01	DTSC	--	--	--	--	--	2.63E+02	2.6E+02	DTSC
Isopropanol	67-63-0	--	--	2.0E+02	PPRTV	--	--	--	--	2.09E+02	2.09E+02	2.1E+02	USEPA	--	--	--	--	8.76E+02	8.76E+02	8.8E+02	USEPA
JP-7	JP7	--	--	3.0E+02	ATSDR	--	--	--	--	3.13E+02	3.13E+02	3.1E+02	USEPA	--	--	--	--	1.31E+03	1.31E+03	1.3E+03	USEPA
Lead Compounds	Lead Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Tetraethyl Lead	78-00-2	--	--	4.0E-04	Route	--	--	--	--	--	4.17E-04	4.2E-04	DTSC	--	--	--	--	--	1.75E-03	1.8E-03	DTSC
Mercury Compounds	Mercury Compounds	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Mercury (elemental)	7439-97-6	--	--	3.0E-02	OEHHA	--	--	--	--	3.13E-01	3.13E-02	3.1E-02	DTSC	--	--	--	--	1.31E+00	1.31E-01	1.3E-01	DTSC
Merphos	150-50-5	--	--	1.2E-01	Route	--	--	--	--	--	1.25E-01	1.3E-01	DTSC	--	--	--	--	--	5.26E-01	5.3E-01	DTSC
Methacrylonitrile	126-98-7	--	--	3.0E+01	PPRTV	--	--	--	--	3.13E+01	3.13E+01	3.1E+01	USEPA	--	--	--	--	1.31E+02	1.31E+02	1.3E+02	USEPA
Methanol	67-56-1	--	--	4.0E+03	OEHHA	--	--	--	--	2.09E+04	4.17E+03	4.2E+03	DTSC	--	--	--	--	8.76E+04	1.75E+04	1.8E+04	DTSC
Methoxychlor	72-43-5	--	--	2.0E+01	Route	--	--	--	--	--	2.09E+01	2.1E+01	DTSC	--	--	--	--	--	8.76E+01	8.8E+01	DTSC
Methoxyethanol Acetate, 2-	110-49-6	--	--	1.0E+00	PPRTV	--	--	--	--	1.04E+00	1.04E+00	1.0E+00	USEPA	--	--	--	--	4.38E+00	4.38E+00	4.4E+00	USEPA
Methoxyethanol, 2-	109-86-4	--	--	2.0E+01	IRIS	--	--	--	--	2.09E+01	2.09E+01	2.1E+01	USEPA	--	--	--	--	8.76E+01	8.76E+01	8.8E+01	USEPA
Methyl Acetate	79-20-9	--	--	4.0E+03	Route	--	--	--	--	--	4.17E+03	4.2E+03	DTSC	--	--	--	--	--	1.75E+04	1.8E+04	DTSC
Methyl Acrylate	96-33-3	--	--	2.0E+01	PPRTV	--	--	--	--	2.09E+01	2.09E+01	2.1E+01	USEPA	--	--	--	--	8.76E+01	8.76E+01	8.8E+01	USEPA
Methyl Ethyl Ketone (2-Butanone)	78-93-3	--	--	5.0E+03	IRIS	--	--	--	--	5.21E+03	5.21E+03	5.2E+03	USEPA	--	--	--	--	2.19E+04	2.19E+04	2.2E+04	USEPA
Methyl Hydrazine	60-34-4	1.0E-03	Screening PPRTV	2.0E-02	Screening PPRTV	2.81E-03	2.81E-03	2.8E-03	USEPA	2.09E-02	2.09E-02	2.1E-02	USEPA	1.23E-02	1.23E-02	1.2E-02	USEPA	8.76E-02	8.76E-02	8.8E-02	USEPA
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	--	--	3.0E+03	IRIS	--	--	--	--	3.13E+03	3.13E+03	3.1E+03	USEPA	--	--	--	--	1.31E+04	1.31E+04	1.3E+04	USEPA
Methyl Isocyanate	624-83-9	--	--	1.0E+00	OEHHA	--	--	--	--	1.04E+00	1.04E+00	1.0E+00	USEPA	--	--	--	--	4.38E+00	4.38E+00	4.4E+00	USEPA
Methyl Methacrylate	80-62-6	--	--	7.0E+02	IRIS	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Methyl Styrene (Mixed Isomers)	25013-15-4	--	--	4.0E+01	HEAST	--	--	--	--	4.17E+01	4.17E+01	4.2E+01	USEPA	--	--	--	--	1.75E+02	1.75E+02	1.8E+02	USEPA
Methyl tert-Butyl Ether (MTBE)	1634-04-4	2.6E-07	OEHHA	3.0E+03	IRIS	1.08E+01	1.08E+01	1.1E+01	USEPA	3.13E+03	3.13E+03	3.1E+03	USEPA	4.72E+01	4.72E+01	4.7E+01	USEPA	1.31E+04	1.31E+04	1.3E+04	USEPA
Methylene Chloride	75-09-2	1.0E-06	OEHHA	4.0E+02	OEHHA	1.01E+02	1.01E+00	1.0E+00	DTSC	6.26E+02	4.17E+02	4.2E+02	DTSC	1.23E+03	1.23E+01	1.2E+01	DTSC	2.63E+03	1.75E+03	1.8E+03	DTSC
Methylstyrene, Alpha-	98-83-9	--	--	2.8E+02	Route	--	--	--	--	--	2.92E+02	2.9E+02	DTSC	--	--	--	--	--	1.23E+03	1.2E+03	DTSC
Mineral oils	8012-95-1	--	--	1.2E+04	Route	--	--	--	--	--	1.25E+04	1.3E+04	DTSC	--	--	--	--	--	5.26E+04	5.3E+04	DTSC
Mirex	2385-85-5	5.1E-03	OEHHA	8.0E-01	Route	5.51E-04	5.51E-04	5.5E-04	USEPA	--	8.34E-01	8.3E-01	DTSC	2.40E-03	2.40E-03	2.4E-03	USEPA	--	3.50E+00	3.5E+00	DTSC
Naled	300-76-5	--	--	8.0E+00	Route	--	--	--	--	--	8.34E+00	8.3E+00	DTSC	--	--	--	--	--	3.50E+01	3.5E+01	DTSC
Naphtha, High Flash Aromatic (HFAN)	64742-95-6	--	--	1.0E+02	PPRTV	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Nickel Carbonyl	13463-39-3	2.6E-04	OEHHA	1.4E-02	OEHHA	1.08E-02	1.08E-02	1.1E-02	USEPA	1.46E-02	1.46E-02	1.5E-02	USEPA	4.72E-02	4.72E-02	4.7E-02	USEPA	6.13E-02	6.13E-02	6.1E-02	USEPA
Nitrobenzene	98-95-3	4.0E-05	IRIS	9.0E+00	IRIS	7.02E-02	7.02E-02	7.0E-02	USEPA	9.39E+00	9.39E+00	9.4E+00	USEPA	3.07E-01	3.07E-01	3.1E-01	USEPA	3.94E+01	3.94E+01	3.9E+01	USEPA
Nitromethane	75-52-5	8.8E-06	PPRTV	5.0E+00	PPRTV	3.19E-01	3.19E-01	3.2E-01	USEPA	5.21E+00	5.21E+00	5.2E+00	USEPA	1.39E+00	1.39E+00	1.4E+00	USEPA	2.19E+01	2.19E+01	2.2E+01	USEPA
Nitropropane, 2-	79-46-9	2.7E-03	HEAST	2.0E+01	IRIS	1.04E-03	1.04E-03	1.0E-03	USEPA	2.09E+01	2.09E+01	2.1E+01	USEPA	4.54E-03	4.54E-03	4.5E-03	USEPA	8.76E+01	8.76E+01	8.8E+01	USEPA
Nitroso-di-N-butylamine, N-	924-16-3	3.1E-03	OEHHA	--	--	1.75E-03	9.06E-04	9.1E-04	DTSC	--	--	--	--	7.67E-03	3.96E-03	4.0E-03	DTSC	--	--	--	--
Nitrosodimethylamine, N-	62-75-9	1.4E-02	IRIS	4.0E-02	Screening PPRTV	7.24E-05	7.24E-05	7.2E-05	USEPA	4.17E-02	4.17E-02	4.2E-02	USEPA	8.76E-04	8.76E-04	8.8E-04	USEPA	1.75E-01	1.75E-01	1.8E-01	USEPA
Nitrosomethylethylamine, N-	10595-95-6	6.3E-03	OEHHA	--	--	4.46E-04	4.46E-04	4.5E-04	USEPA	--	--	--	--	1.95E-03	1.95E-03	1.9E-03	USEPA	--	--	--	--
Nitrotoluene, o-	88-72-2	5.5E-05	Route	3.6E+00	Route	--	5.10E-02	5.1E-02	DTSC	--	3.75E+00	3.8E+00	DTSC	--	2.23E-01	2.2E-01	DTSC	--	1.58E+01	1.6E+01	DTSC
Nonane, n-	111-84-2	--	--	2.0E+01	PPRTV	--	--	--	--	2.09E+01	2.09E+01	2.1E+01	USEPA	--	--	--	--	8.76E+01	8.76E+01	8.8E+01	USEPA
Pebulate	1114-71-2	--	--	2.0E+02	Route	--	--	--	--	--	2.09E+02	2.1E+02	DTSC	--	--	--	--	--	8.76E+02	8.8E+02	DTSC
Pentachlorobenzene	608-93-5	--	--	3.2E+00	Route	--	--	--	--	--	3.34E+00	3.3E+00	DTSC	--	--	--	--	--	1.40E+01	1.4E+01	DTSC
Pentachloroethane	76-01-7	2.3E-05	Route	--	--	--	1.25E-01	1.2E-01	DTSC	--	--	--	--	--	5.45E-01	5.5E-01	DTSC	--	--	--	--
Pentachloronitrobenzene	82-68-8	6.5E-05	Route	1.2E+01	Route	--	4.32E-02	4.3E-02	DTSC	--	1.25E+01	1.3E+01	DTSC	--	1.89E-01	1.9E-01	DTSC	--	5.26E+01	5.3E+01	DTSC
Pentane, n-	109-66-0	--	--	1.0E+03	PPRTV	--	--	--	--	1.04E+03	1.04E+03	1.0E+03	USEPA	--	--	--	--	4.38E+03	4.38E+03	4.4E+03	USEPA
Perfluorobutane Sulfonate	375-73-5	--	--	8.0E+01	Route	--	--	--	--	--	8.34E+01	8.3E+01	DTSC	--	--	--	--	--	3.50E+02	3.5E+02	DTSC
Phosgene	75-44-5	--	--	3.0E-01	IRIS	--	--	--	--	3.13E-01	3.13E-01	3.1E-01	USEPA	--	--	--	--	1.31E+00	1.31E+00	1.3E+00	USEPA
Phosphine	7803-51-2	--	--	3.0E-01	IRIS	--	--	--	--	3.13E-01	3.13E-01	3.1E-01	USEPA	--	--	--	--	1.31E+00	1.31E+00	1.3E+00	USEPA
Phosphorus, White	7723-14-0	--	--	8.0E-02	Route	--	--	--	--	--	8.34E-02	8.3E-02	DTSC	--	--	--	--	--	3.50E-01	3.5E-01	DTSC
Phthalates	Phthalates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Dimethylterephthalate	120-61-6	--	--	4.0E+02	Route	--	--	--	--	--	4.17E+02	4.2E+02	DTSC	--	--	--	--	--	1.75E+03	1.8E+03	DTSC
Polychlorinated Biphenyls (PCBs)	ychlorinated Bipheny	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Aroclor 1016	12674-11-2	2.0E-05	IRIS (PCB mixture; lowest risk)	2.8E-01	Route	1.40E-01	1.40E-01	1.4E-01	USEPA	--	2.92E-01	2.9E-01	DTSC	6.13E-01	6.13E-01	6.1E-01	USEPA	--	1.23E+00	1.2E+00	DTSC
~Aroclor 1221	11104-28-2	5.7E-04	IRIS (PCB mixture; high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Aroclor 1232	11141-16-5	5.7E-04	IRIS (PCB mixture; high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Aroclor 1242	53469-21-9	5.7E-04	IRIS (PCB mixture; high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Aroclor 1248	12672-29-6	5.7E-04	IRIS (PCB mixture; high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Aroclor 1254	11097-69-1	5.7E-04	IRIS (PCB mixture; high risk)	8.0E-02	Route	4.93E-03	4.93E-03	4.9E-03	USEPA	--	8.34E-02	8.3E-02	DTSC	2.15E-02	2.15E-02	2.2E-02	USEPA	--	3.50E-01	3.5E-01	DTSC
~Aroclor 1260	11096-82-5	5.7E-04	IRIS (PCB mixture; high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Aroclor 5460	11126-42-4	--	--	2.4E+00	Route	--	--	--	--	--	2.50E+00	2.5E+00	DTSC	--	--	--	--	--	1.05E+01	1.1E+01	DTSC
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.1E+00	USEPA ECAC	1.3E-03	USEPA ECAC	2.55E-06	2.55E-06	2.6E-06	USEPA	1.36E-03	1.36E-03	1.4E-03	USEPA	1.11E-05	1.11E-05	1.1E-05	USEPA	5.69E-03	5.69E-03	5.7E-03	USEPA
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.1E-03	USEPA ECAC	1.3E+00	USEPA ECAC	2.55E-03	2.55E-03	2.6E-03	USEPA	1.36E+00	1.36E+00	1.4E+00	USEPA	1.11E-02	1.11E-02	1.1E-02	USEPA	5.69E+00	5.69E+00	5.7E+00	USEPA
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	3.8E+00	USEPA ECAC	4.0E-04	USEPA ECAC	7.39E-07	7.39E-07	7.4E-07	USEPA	4.17E-04	4.17E-04	4.2E-04	USEPA	3.23E-06	3.23E-06	3.2E-06	USEPA	1.75E-03	1.75E-03	1.8E-03	USEPA
~Polychlorinated Biphenyls (high risk)	1336-36-3	5.7E-04	IRIS (high risk)	--	--	4.93E-03	4.93E-03	4.9E-03	USEPA	--	--	--	--	2.15E-02	2.15E-02	2.2E-02	USEPA	--	--	--	--
~Polychlorinated Biphenyls (low risk)	PCBs (low)	1.0E-04	IRIS	--	--	2.81E-02	2.81E-02	2.8E-02	USEPA	--	--	--	--	1.23E-01	1.23E-01	1.2E-01	USEPA	--	--	--	--
~Polychlorinated Biphenyls (lowest risk)	PCBs (lowest)	2.0E-05	IRIS	--	--	1.40E-01	1.40E-01	1.4E-01	USEPA	--	--	--	--	6.13E-01	6.13E-01	6.1E-01	USEPA	--	--	--	--
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.1E-02	USEPA ECAC	1.3E-01	USEPA ECAC	2.55E-04	2.55E-04	2.6E-04	USEPA	1.36E-01	1.36E-01	1.4E-01	USEPA	1.11E-03	1.11E-03	1.1E-03	USEPA	5.69E-01	5.69E-01	5.7E-01	USEPA

Table C-1. DTSC-Recommended Ambient-Air Screening Levels

		Toxicity Factor for Final Screening Value				Screening Levels for Residential Air (µg/m³)								Screening Levels for Commercial/Industrial Air (µg/m³)							
		Inhalation Unit Risk, IUR		Reference Concentration, RfC or REL		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Noncancer Endpoint	
Analyte	**CAS #**	$(\mu g/m^3)^{-1}$	Source	$(\mu g/m^3)$	Source	**USEPA RSL**	**DTSC-SL**	**Final Value**	**Source**	**USEPA RSL**	**DTSC-SL**	**Final Value**	**Source**	**USEPA RSL**	**DTSC-SL**	**Final Value**	**Source**	**USEPA RSL**	**DTSC-SL**	**Final Value**	**Source**
Polynuclear Aromatic Hydrocarbons (PAHs)	PAH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
~Acenaphthene	83-32-9	--	--	2.4E+02	Route	--	--	--	--	--	2.50E+02	2.5E+02	DTSC	--	--	--	--	--	1.05E+03	1.1E+03	DTSC
~Anthracene	120-12-7	--	--	1.2E+03	Route	--	--	--	--	--	1.25E+03	1.3E+03	DTSC	--	--	--	--	--	5.26E+03	5.3E+03	DTSC
~Benz[a]anthracene	56-55-3	1.1E-04	OEHHA	--	--	9.22E-03	9.22E-03	9.2E-03	USEPA	--	--	--	--	1.11E-01	1.11E-01	1.1E-01	USEPA	--	--	--	--
~Benzo[b]fluoranthene	205-99-2	1.1E-04	OEHHA	--	--	9.22E-03	9.22E-03	9.2E-03	USEPA	--	--	--	--	1.11E-01	1.11E-01	1.1E-01	USEPA	--	--	--	--
~Chloronaphthalene, Beta-	91-58-7	--	--	3.2E+02	Route	--	--	--	--	--	3.34E+02	3.3E+02	DTSC	--	--	--	--	--	1.40E+03	1.4E+03	DTSC
~Chrysene	218-01-9	1.1E-05	OEHHA	--	--	9.22E-02	9.22E-02	9.2E-02	USEPA	--	--	--	--	1.11E+00	1.11E+00	1.1E+00	USEPA	--	--	--	--
~Fluorene	86-73-7	--	--	1.6E+02	Route	--	--	--	--	--	1.67E+02	1.7E+02	DTSC	--	--	--	--	--	7.01E+02	7.0E+02	DTSC
~Methylnaphthalene, 1-	90-12-0	7.3E-06	Route	2.8E+02	Route	--	3.87E-01	3.9E-01	DTSC	--	2.92E+02	2.9E+02	DTSC	--	1.69E+00	1.7E+00	DTSC	--	1.23E+03	1.2E+03	DTSC
~Methylnaphthalene, 2-	91-57-6	--	--	1.6E+01	Route	--	--	--	--	--	1.67E+01	1.7E+01	DTSC	--	--	--	--	--	7.01E+01	7.0E+01	DTSC
~Naphthalene	91-20-3	3.4E-05	OEHHA	3.0E+00	IRIS	8.26E-02	8.26E-02	8.3E-02	USEPA	3.13E+00	3.13E+00	3.1E+00	USEPA	3.61E-01	3.61E-01	3.6E-01	USEPA	1.31E+01	1.31E+01	1.3E+01	USEPA
~Pyrene	129-00-0	--	--	1.2E+02	Route	--	--	--	--	--	1.25E+02	1.3E+02	DTSC	--	--	--	--	--	5.26E+02	5.3E+02	DTSC
Profluralin	26399-36-0	--	--	2.4E+01	Route	--	--	--	--	--	2.50E+01	2.5E+01	DTSC	--	--	--	--	--	1.05E+02	1.1E+02	DTSC
Propargyl Alcohol	107-19-7	--	--	8.0E+00	Route	--	--	--	--	--	8.34E+00	8.3E+00	DTSC	--	--	--	--	--	3.50E+01	3.5E+01	DTSC
Propionaldehyde	123-38-6	--	--	8.0E+00	IRIS	--	--	--	--	8.34E+00	8.34E+00	8.3E+00	USEPA	--	--	--	--	3.50E+01	3.50E+01	3.5E+01	USEPA
Propyl benzene	103-65-1	--	--	1.0E+03	Screening PPRTV	--	--	--	--	1.04E+03	1.04E+03	1.0E+03	USEPA	--	--	--	--	4.38E+03	4.38E+03	4.4E+03	USEPA
Propylene	115-07-1	--	--	3.0E+03	OEHHA	--	--	--	--	3.13E+03	3.13E+03	3.1E+03	USEPA	--	--	--	--	1.31E+04	1.31E+04	1.3E+04	USEPA
Propylene Glycol Monoethyl Ether	1569-02-4	--	--	2.8E+03	Route	--	--	--	--	--	2.92E+03	2.9E+03	DTSC	--	--	--	--	--	1.23E+04	1.2E+04	DTSC
Propylene Glycol Monomethyl Ether	107-98-2	--	--	2.0E+03	IRIS	--	--	--	--	2.09E+03	2.09E+03	2.1E+03	USEPA	--	--	--	--	8.76E+03	8.76E+03	8.8E+03	USEPA
Propylene Oxide	75-56-9	3.7E-06	IRIS	3.0E+01	IRIS	7.59E-01	7.59E-01	7.6E-01	USEPA	3.13E+01	3.13E+01	3.1E+01	USEPA	3.31E+00	3.31E+00	3.3E+00	USEPA	1.31E+02	1.31E+02	1.3E+02	USEPA
Pyridine	110-86-1	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
Ronnel	299-84-3	--	--	2.0E+02	Route	--	--	--	--	--	2.09E+02	2.1E+02	DTSC	--	--	--	--	--	8.76E+02	8.8E+02	DTSC
Styrene	100-42-5	--	--	9.0E+02	OEHHA	--	--	--	--	1.04E+03	9.39E+02	9.4E+02	DTSC	--	--	--	--	4.38E+03	3.94E+03	3.9E+03	DTSC
Sulfur Trioxide	7446-11-9	--	--	1.0E+00	OEHHA	--	--	--	--	1.04E+00	1.04E+00	1.0E+00	USEPA	--	--	--	--	4.38E+00	4.38E+00	4.4E+00	USEPA
Terbufos	13071-79-9	--	--	1.0E-01	Route	--	--	--	--	--	1.04E-01	1.0E-01	DTSC	--	--	--	--	--	4.38E-01	4.4E-01	DTSC
Tetrachlorobenzene, 1,2,4,5-	95-94-3	--	--	1.2E+00	Route	--	--	--	--	--	1.25E+00	1.3E+00	DTSC	--	--	--	--	--	5.26E+00	5.3E+00	DTSC
Tetrachloroethane, 1,1,1,2-	630-20-6	7.4E-06	IRIS	1.2E+02	Route	3.79E-01	3.79E-01	3.8E-01	USEPA	--	1.25E+02	1.3E+02	DTSC	1.66E+00	1.66E+00	1.7E+00	USEPA	--	5.26E+02	5.3E+02	DTSC
Tetrachloroethane, 1,1,2,2-	79-34-5	5.8E-05	OEHHA	8.0E+01	Route	4.84E-02	4.84E-02	4.8E-02	USEPA	--	8.34E+01	8.3E+01	DTSC	2.11E-01	2.11E-01	2.1E-01	USEPA	--	3.50E+02	3.5E+02	DTSC
Tetrachloroethylene	127-18-4	5.9E-06	OEHHA	3.5E+01	OEHHA	1.08E+01	4.76E-01	4.8E-01	DTSC	4.17E+01	3.65E+01	3.7E+01	DTSC	4.72E+01	2.08E+00	2.1E+00	DTSC	1.75E+02	1.53E+02	1.5E+02	DTSC
Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	5.0E-03	Route	--	--	--	5.62E-04	5.6E-04	DTSC	--	--	--	--	--	2.45E-03	2.5E-03	DTSC	--	--	--	--
Tetrafluoroethane, 1,1,1,2-	811-97-2	--	--	8.0E+04	IRIS	--	--	--	--	8.34E+04	8.34E+04	8.3E+04	USEPA	--	--	--	--	3.50E+05	3.50E+05	3.5E+05	USEPA
Thallium Acetate	563-68-8	--	--	2.4E-02	Route	--	--	--	--	--	2.50E-02	2.5E-02	DTSC	--	--	--	--	--	1.05E-01	1.1E-01	DTSC
Titanium Tetrachloride	7550-45-0	--	--	1.0E-01	ATSDR	--	--	--	--	1.04E-01	1.04E-01	1.0E-01	USEPA	--	--	--	--	4.38E-01	4.38E-01	4.4E-01	USEPA
Toluene	108-88-3	--	--	3.0E+02	OEHHA	--	--	--	--	5.21E+03	3.13E+02	3.1E+02	DTSC	--	--	--	--	2.19E+04	1.31E+03	1.3E+03	DTSC
Total Petroleum Hydrocarbons (Aliphatic High)	TPH-o (aliphatic)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (Aliphatic Low)	TPH-g (aliphatic)	--	--	6.0E+02	PPRTV	--	--	--	--	6.26E+02	6.26E+02	6.3E+02	USEPA	--	--	--	--	2.63E+03	2.63E+03	2.6E+03	USEPA
Total Petroleum Hydrocarbons (Aliphatic Medium)	TPH-d (aliphatic)	--	--	1.0E+02	PPRTV	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Total Petroleum Hydrocarbons (Aromatic Low)	TPH-g (aromatic)	--	--	3.0E+01	PPRTV	--	--	--	--	3.13E+01	3.13E+01	3.1E+01	USEPA	--	--	--	--	1.31E+02	1.31E+02	1.3E+02	USEPA
Total Petroleum Hydrocarbons (Aromatic Medium)	TPH-d (aromatic)	--	--	3.0E+00	PPRTV	--	--	--	--	3.13E+00	3.13E+00	3.1E+00	USEPA	--	--	--	--	1.31E+01	1.31E+01	1.3E+01	USEPA
Tri-n-butyltin	688-73-3	--	--	1.2E+00	Route	--	--	--	--	--	1.25E+00	1.3E+00	DTSC	--	--	--	--	--	5.26E+00	5.3E+00	DTSC
Triallate	2303-17-5	--	--	5.2E+01	Route	--	--	--	--	--	5.42E+01	5.4E+01	DTSC	--	--	--	--	--	2.28E+02	2.3E+02	DTSC
Tribromobenzene, 1,2,4-	615-54-3	--	--	2.0E+01	Route	--	--	--	--	--	2.09E+01	2.1E+01	DTSC	--	--	--	--	--	8.76E+01	8.8E+01	DTSC
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	--	--	3.0E+04	HEAST	--	--	--	--	3.13E+04	3.13E+04	3.1E+04	USEPA	--	--	--	--	1.31E+05	1.31E+05	1.3E+05	USEPA
Trichlorobenzene, 1,2,3-	87-61-6	--	--	3.2E+00	Route	--	--	--	--	--	3.34E+00	3.3E+00	DTSC	--	--	--	--	--	1.40E+01	1.4E+01	DTSC
Trichlorobenzene, 1,2,4-	120-82-1	7.3E-06	Route	2.0E+00	PPRTV	--	3.87E-01	3.9E-01	DTSC	2.09E+00	2.09E+00	2.1E+00	USEPA	--	1.69E+00	1.7E+00	DTSC	8.76E+00	8.76E+00	8.8E+00	USEPA
Trichloroethane, 1,1,1-	71-55-6	--	--	1.0E+03	OEHHA	--	--	--	--	5.21E+03	1.04E+03	1.0E+03	DTSC	--	--	--	--	2.19E+04	4.38E+03	4.4E+03	DTSC
Trichloroethane, 1,1,2-	79-00-5	1.6E-05	IRIS	2.0E-01	Screening PPRTV	1.75E-01	1.75E-01	1.8E-01	USEPA	2.09E-01	2.09E-01	2.1E-01	USEPA	7.67E-01	7.67E-01	7.7E-01	USEPA	8.76E-01	8.76E-01	8.8E-01	USEPA
Trichloroethylene	79-01-6	4.1E-06	IRIS	2.0E+00	IRIS	4.78E-01	4.78E-01	4.8E-01	USEPA	2.09E+00	2.09E+00	2.1E+00	USEPA	2.99E+00	2.99E+00	3.0E+00	USEPA	8.76E+00	8.76E+00	8.8E+00	USEPA
Trichlorofluoromethane	75-69-4	--	--	7.0E+02	HEAST	--	--	--	--	7.30E+02	7.30E+02	7.3E+02	USEPA	--	--	--	--	3.07E+03	3.07E+03	3.1E+03	USEPA
Trichloropropane, 1,1,2-	598-77-6	--	--	2.0E+01	Route	--	--	--	--	--	2.09E+01	2.1E+01	DTSC	--	--	--	--	--	8.76E+01	8.8E+01	DTSC
Trichloropropane, 1,2,3-	96-18-4	7.5E-03	Route	3.0E-01	IRIS	--	1.35E-04	1.4E-04	DTSC	3.13E-01	3.13E-01	3.1E-01	USEPA	--	1.64E-03	1.6E-03	DTSC	1.31E+00	1.31E+00	1.3E+00	USEPA
Trichloropropene, 1,2,3-	96-19-5	--	--	3.0E-01	PPRTV	--	--	--	--	3.13E-01	3.13E-01	3.1E-01	USEPA	--	--	--	--	1.31E+00	1.31E+00	1.3E+00	USEPA
Triethylamine	121-44-8	--	--	7.0E+00	IRIS	--	--	--	--	7.30E+00	7.30E+00	7.3E+00	USEPA	--	--	--	--	3.07E+01	3.07E+01	3.1E+01	USEPA
Trifluralin	1582-09-8	1.9E-06	Route	3.0E+01	Route	--	1.46E+00	1.5E+00	DTSC	--	3.13E+01	3.1E+01	DTSC	--	6.37E+00	6.4E+00	DTSC	--	1.31E+02	1.3E+02	DTSC
Trimethylbenzene, 1,2,3-	526-73-8	--	--	5.0E+00	PPRTV	--	--	--	--	5.21E+00	5.21E+00	5.2E+00	USEPA	--	--	--	--	2.19E+01	2.19E+01	2.2E+01	USEPA
Trimethylbenzene, 1,2,4-	95-63-6	--	--	7.0E+00	PPRTV	--	--	--	--	7.30E+00	7.30E+00	7.3E+00	USEPA	--	--	--	--	3.07E+01	3.07E+01	3.1E+01	USEPA
Trimethylbenzene, 1,3,5-	108-67-8	--	--	4.0E+01	Route	--	--	--	--	--	4.17E+01	4.2E+01	DTSC	--	--	--	--	--	1.75E+02	1.8E+02	DTSC
Vernolate	1929-77-7	--	--	4.0E+00	Route	--	--	--	--	--	4.17E+00	4.2E+00	DTSC	--	--	--	--	--	1.75E+01	1.8E+01	DTSC
Vinyl Acetate	108-05-4	--	--	2.0E+02	IRIS	--	--	--	--	2.09E+02	2.09E+02	2.1E+02	USEPA	--	--	--	--	8.76E+02	8.76E+02	8.8E+02	USEPA
Vinyl Bromide	593-60-2	3.2E-05	HEAST	3.0E+00	IRIS	8.77E-02	8.77E-02	8.8E-02	USEPA	3.13E+00	3.13E+00	3.1E+00	USEPA	3.83E-01	3.83E-01	3.8E-01	USEPA	1.31E+01	1.31E+01	1.3E+01	USEPA
Vinyl Chloride	75-01-4	7.8E-05	OEHHA	1.0E+02	IRIS	1.68E-01	9.45E-03	9.5E-03	DTSC	1.04E+02	1.04E+02	1.0E+02	USEPA	2.79E+00	1.57E-01	1.6E-01	DTSC	4.38E+02	4.38E+02	4.4E+02	USEPA
Xylene, P-	106-42-3	--	--	1.0E+02	IRIS	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Xylene, m-	108-38-3	--	--	1.0E+02	IRIS	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Xylene, o-	95-47-6	--	--	1.0E+02	IRIS	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Xylenes	1330-20-7	--	--	1.0E+02	IRIS	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Additional Analytes																					
Chloropropane, 2-	75-29-6	--	--	1.0E+02	DTSC J&E	--	--	--	--	1.04E+02	1.04E+02	1.0E+02	USEPA	--	--	--	--	4.38E+02	4.38E+02	4.4E+02	USEPA
Dichlorobenzene, 1,3-	541-73-1	--	--	1.2E+02	Route	--	--	--	--	--	1.25E+02	1.3E+02	DTSC	--	--	--	--	--	5.26E+02	5.3E+02	DTSC
Ethyl tert-butyl ether	637-92-3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylcyclohexane	108-87-2	--	--	6.0E+03	Cyclohexane	--	--	--	--	--	6.26E+03	6.3E+03	DTSC	--	--	--	--	--	2.63E+04	2.6E+04	DTSC
tert-Amyl methyl ether	994-05-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol	75-65-0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobiphenyls	25512-42-9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monochlorobiphenyls	27323-18-8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
USEPA RSL Analytes									
Acetaldehyde		2.20E-06	1.28E+00	9.00E+00	9.39E+00	2.70E-06	1.04E+00	9.00E+00	9.39E+00
Acetone		--	--	3.10E+04	3.23E+04	--	--	3.10E+04	3.23E+04
Acetone Cyanohydrin		--	--	2.00E+00	2.09E+00	--	--	2.00E+00	2.09E+00
Acetonitrile		--	--	6.00E+01	6.26E+01	--	--	6.00E+01	6.26E+01
Acetophenone		--	--	--	--	--	--	4.00E+02	4.17E+02
Acrolein		--	--	2.00E-02	2.09E-02	--	--	2.00E-02	2.09E-02
Acrylic Acid		--	--	1.00E+00	1.04E+00	--	--	1.00E+00	1.04E+00
Acrylonitrile		6.80E-05	4.13E-02	2.00E+00	2.09E+00	2.90E-04	9.68E-03	2.00E+00	2.09E+00
Aldrin		4.90E-03	5.73E-04	--	--	4.90E-03	5.73E-04	1.20E-01	1.25E-01
Allyl Alcohol		--	--	1.00E-01	1.04E-01	--	--	1.00E-01	1.04E-01
Allyl Chloride		6.00E-06	4.68E-01	1.00E+00	1.04E+00	6.00E-06	4.68E-01	1.00E+00	1.04E+00
Ammonia		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Amyl Alcohol, tert-		--	--	3.00E+00	3.13E+00	--	--	3.00E+00	3.13E+00
Azobenzene		3.10E-05	9.06E-02	--	--	3.10E-05	9.06E-02	--	--
Benefin		--	--	--	--	--	--	1.20E+03	1.25E+03
Benzaldehyde		--	--	--	--	--	--	4.00E+02	4.17E+02
Benzene		7.80E-06	3.60E-01	3.00E+01	3.13E+01	2.90E-05	9.68E-02	3.00E+00	3.13E+00
Benzenethiol		--	--	--	--	--	--	4.00E+00	4.17E+00
Benzotrichloride		--	--	--	--	3.25E-03	8.64E-04	--	--
Benzyl Chloride		4.90E-05	5.73E-02	1.00E+00	1.04E+00	4.90E-05	5.73E-02	1.00E+00	1.04E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Biphenyl, 1,1'-		--	--	4.00E-01	4.17E-01	2.00E-06	1.40E+00	4.00E-01	4.17E-01
Bis(2-chloro-1-methylethyl) ether		1.00E-05	2.81E-01	--	--	1.00E-05	2.81E-01	1.60E+02	1.67E+02
Bis(2-chloroethyl)ether		3.30E-04	8.51E-03	--	--	7.10E-04	3.95E-03	--	--
Bis(chloromethyl)ether		6.20E-02	4.53E-05	--	--	6.20E-02	4.53E-05	--	--
Boron Trichloride		--	--	2.00E+01	2.09E+01	--	--	2.00E+01	2.09E+01
Boron Trifluoride		--	--	1.30E+01	1.36E+01	--	--	7.00E-01	7.30E-01
Bromo-2-chloroethane, 1-		6.00E-04	4.68E-03	--	--	6.00E-04	4.68E-03	--	--
Bromobenzene		--	--	6.00E+01	6.26E+01	--	--	6.00E+01	6.26E+01
Bromochloromethane		--	--	4.00E+01	4.17E+01	--	--	4.00E+01	4.17E+01
Bromodichloromethane		3.70E-05	7.59E-02	--	--	3.70E-05	7.59E-02	8.00E+01	8.34E+01
Bromoform		1.10E-06	2.55E+00	--	--	1.10E-06	2.55E+00	8.00E+01	8.34E+01
Bromomethane		--	--	5.00E+00	5.21E+00	--	--	5.00E+00	5.21E+00
Bromophos		--	--	--	--	--	--	2.00E+01	2.09E+01
Bromoxynil Octanoate		--	--	--	--	--	--	8.00E+01	8.34E+01
Butadiene, 1,3-		3.00E-05	9.36E-02	2.00E+00	2.09E+00	1.70E-04	1.65E-02	2.00E+00	2.09E+00
Butanol, N-		--	--	--	--	--	--	4.00E+02	4.17E+02
Butyl alcohol, sec-		--	--	3.00E+04	3.13E+04	--	--	3.00E+04	3.13E+04
Butylate		--	--	--	--	--	--	2.00E+02	2.09E+02
Butylbenzene, n-		--	--	--	--	--	--	2.00E+02	2.09E+02
Butylbenzene, sec-		--	--	--	--	--	--	4.00E+02	4.17E+02
Butylbenzene, tert-		--	--	--	--	--	--	4.00E+02	4.17E+02
Carbon Disulfide		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	**Cancer**	**RfC**	**Noncancer**	**IUR**	**Cancer**	**RfC**	**Noncancer**
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Carbon Tetrachloride		6.00E-06	4.68E-01	1.00E+02	1.04E+02	4.20E-05	6.68E-02	4.00E+01	4.17E+01
Chloral Hydrate		--	--	--	--	--	--	4.00E+02	4.17E+02
Chlordane		1.00E-04	2.81E-02	7.00E-01	7.30E-01	3.40E-04	8.26E-03	7.00E-01	7.30E-01
Chlorine		--	--	1.50E-01	1.56E-01	--	--	1.50E-01	1.56E-01
Chlorine Dioxide		--	--	2.00E-01	2.09E-01	--	--	2.00E-01	2.09E-01
Chloro-1,1-difluoroethane, 1-		--	--	5.00E+04	5.21E+04	--	--	5.00E+04	5.21E+04
Chloro-1,3-butadiene, 2-		3.00E-04	9.36E-03	2.00E+01	2.09E+01	3.00E-04	9.36E-03	2.00E+01	2.09E+01
Chloroacetaldehyde, 2-		--	--	--	--	6.75E-05	4.16E-02	--	--
Chlorobenzene		--	--	5.00E+01	5.21E+01	--	--	5.00E+01	5.21E+01
Chlorobenzotrifluoride, 4-		--	--	3.00E+02	3.13E+02	--	--	3.00E+02	3.13E+02
Chlorobutane, 1-		--	--	--	--	--	--	1.60E+02	1.67E+02
Chlorodifluoromethane		--	--	5.00E+04	5.21E+04	--	--	5.00E+04	5.21E+04
Chloroethanol, 2-		--	--	--	--	--	--	8.00E+01	8.34E+01
Chloroform		2.30E-05	1.22E-01	9.80E+01	1.02E+02	2.30E-05	1.22E-01	9.80E+01	1.02E+02
Chloromethane		--	--	9.00E+01	9.39E+01	--	--	9.00E+01	9.39E+01
Chloromethyl Methyl Ether		6.90E-04	4.07E-03	--	--	6.90E-04	4.07E-03	--	--
Chlorophenol, 2-		--	--	--	--	--	--	2.00E+01	2.09E+01
Chloropicrin		--	--	4.00E-01	4.17E-01	--	--	4.00E-01	4.17E-01
Chlorotoluene, o-		--	--	--	--	--	--	8.00E+01	8.34E+01
Chlorotoluene, p-		--	--	--	--	--	--	8.00E+01	8.34E+01
Coke Oven Emissions	M	6.20E-04	1.64E-03	--	--	6.20E-04	1.64E-03	--	--
Crotonaldehyde, trans-		--	--	--	--	4.75E-04	5.91E-03	4.00E+00	4.17E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	**Cancer**	**RfC**	**Noncancer**	**IUR**	**Cancer**	**RfC**	**Noncancer**
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Cumene		--	--	4.00E+02	4.17E+02	--	--	4.00E+02	4.17E+02
Cyanides		--	--	--	--	--	--	--	--
~Cyanide (CN-)		--	--	8.00E-01	8.34E-01	--	--	8.00E-01	8.34E-01
~Cyanogen		--	--	--	--	--	--	4.00E+00	4.17E+00
~Cyanogen Bromide		--	--	--	--	--	--	3.60E+02	3.75E+02
~Cyanogen Chloride		--	--	--	--	--	--	2.00E+02	2.09E+02
~Hydrogen Cyanide		--	--	8.00E-01	8.34E-01	--	--	8.00E-01	8.34E-01
~Thiocyanic Acid		--	--	--	--	--	--	8.00E-01	8.34E-01
Cyclohexane		--	--	6.00E+03	6.26E+03	--	--	6.00E+03	6.26E+03
Cyclohexanone		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02
Cyclohexene		--	--	1.00E+03	1.04E+03	--	--	1.00E+03	1.04E+03
Cyclohexylamine		--	--	--	--	--	--	8.00E+02	8.34E+02
DDE, p,p'-		9.70E-05	2.89E-02	--	--	9.70E-05	2.89E-02	--	--
Dibenzothiophene		--	--	--	--	--	--	4.00E+01	4.17E+01
Dibromo-3-chloropropane, 1,2-	M	6.00E-03	1.69E-04	2.00E-01	2.09E-01	6.00E-03	1.69E-04	2.00E-01	2.09E-01
Dibromobenzene, 1,3-		--	--	--	--	--	--	1.60E+00	1.67E+00
Dibromobenzene, 1,4-		--	--	--	--	--	--	4.00E+01	4.17E+01
Dibromochloromethane		2.70E-05	1.04E-01	--	--	2.70E-05	1.04E-01	8.00E+01	8.34E+01
Dibromoethane, 1,2-		6.00E-04	4.68E-03	9.00E+00	9.39E+00	6.00E-04	4.68E-03	8.00E-01	8.34E-01
Dibromomethane (Methylene Bromide)		--	--	4.00E+00	4.17E+00	--	--	4.00E+00	4.17E+00
Dichloro-2-butene, 1,4-		4.20E-03	6.68E-04	--	--	4.20E-03	6.68E-04	--	--
Dichloro-2-butene, cis-1,4-		4.20E-03	6.68E-04	--	--	4.20E-03	6.68E-04	--	--

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Dichloro-2-butene, trans-1,4-		4.20E-03	6.68E-04	--	--	4.20E-03	6.68E-04	--	--
Dichlorobenzene, 1,2-		--	--	2.00E+02	2.09E+02	--	--	2.00E+02	2.09E+02
Dichlorobenzene, 1,4-		1.10E-05	2.55E-01	8.00E+02	8.34E+02	1.10E-05	2.55E-01	8.00E+02	8.34E+02
Dichlorodifluoromethane		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Dichloroethane, 1,1-		1.60E-06	1.75E+00	--	--	1.60E-06	1.75E+00	8.00E+02	8.34E+02
Dichloroethane, 1,2-		2.60E-05	1.08E-01	7.00E+00	7.30E+00	2.60E-05	1.08E-01	7.00E+00	7.30E+00
Dichloroethylene, 1,1-		--	--	2.00E+02	2.09E+02	--	--	7.00E+01	7.30E+01
Dichloroethylene, 1,2-cis-		--	--	--	--	--	--	8.00E+00	8.34E+00
Dichloroethylene, 1,2-trans-		--	--	--	--	--	--	8.00E+01	8.34E+01
Dichloropropane, 1,2-		1.00E-05	2.81E-01	4.00E+00	4.17E+00	1.00E-05	2.81E-01	4.00E+00	4.17E+00
Dichloropropane, 1,3-		--	--	--	--	--	--	8.00E+01	8.34E+01
Dichloropropene, 1,3-		4.00E-06	7.02E-01	2.00E+01	2.09E+01	1.60E-05	1.75E-01	2.00E+01	2.09E+01
Dicyclopentadiene		--	--	3.00E-01	3.13E-01	--	--	3.00E-01	3.13E-01
Dieldrin		4.60E-03	6.10E-04	--	--	4.60E-03	6.10E-04	2.00E-01	2.09E-01
Diethylformamide		--	--	--	--	--	--	4.00E+00	4.17E+00
Difluoroethane, 1,1-		--	--	4.00E+04	4.17E+04	--	--	4.00E+04	4.17E+04
Dihydrosafrole		1.30E-05	2.16E-01	--	--	1.30E-05	2.16E-01	--	--
Diisopropyl Ether		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02
Diisopropyl Methylphosphonate		--	--	--	--	--	--	3.20E+02	3.34E+02
Dimethylaniline, N,N-		--	--	--	--	--	--	8.00E+00	8.34E+00
Dimethylformamide		--	--	3.00E+01	3.13E+01	--	--	3.00E+01	3.13E+01
Dimethylhydrazine, 1,1-		--	--	2.00E-03	2.09E-03	--	--	2.00E-03	2.09E-03

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Dimethylhydrazine, 1,2-		1.60E-01	1.75E-05	--	--	1.60E-01	1.75E-05	--	--
Dimethylvinylchloride		1.30E-05	2.16E-01	--	--	1.30E-05	2.16E-01	--	--
Dioxane, 1,4-		5.00E-06	5.62E-01	3.00E+01	3.13E+01	7.70E-06	3.65E-01	3.00E+01	3.13E+01
Dioxins		--	--	--	--	--	--	--	--
~TCDD, 2,3,7,8-		3.80E+01	7.39E-08	4.00E-05	4.17E-05	3.80E+01	7.39E-08	4.00E-05	4.17E-05
Dithiane, 1,4-		--	--	--	--	--	--	4.00E+01	4.17E+01
EPTC		--	--	--	--	--	--	1.00E+02	1.04E+02
Endosulfan		--	--	--	--	--	--	2.40E+01	2.50E+01
Epichlorohydrin		1.20E-06	2.34E+00	1.00E+00	1.04E+00	2.30E-05	1.22E-01	1.00E+00	1.04E+00
Epoxybutane, 1,2-		--	--	2.00E+01	2.09E+01	--	--	2.00E+01	2.09E+01
Ethoxyethanol Acetate, 2-		--	--	6.00E+01	6.26E+01	--	--	6.00E+01	6.26E+01
Ethoxyethanol, 2-		--	--	2.00E+02	2.09E+02	--	--	7.00E+01	7.30E+01
Ethyl Acetate		--	--	7.00E+01	7.30E+01	--	--	7.00E+01	7.30E+01
Ethyl Acrylate		--	--	8.00E+00	8.34E+00	1.20E-05	2.34E-01	8.00E+00	8.34E+00
Ethyl Chloride (Chloroethane)		--	--	1.00E+04	1.04E+04	1.18E-06	2.39E+00	1.00E+04	1.04E+04
Ethyl Ether		--	--	--	--	--	--	8.00E+02	8.34E+02
Ethyl Methacrylate		--	--	3.00E+02	3.13E+02	--	--	3.00E+02	3.13E+02
Ethylbenzene		2.50E-06	1.12E+00	1.00E+03	1.04E+03	2.50E-06	1.12E+00	1.00E+03	1.04E+03
Ethylene Diamine		--	--	--	--	--	--	3.60E+02	3.75E+02
Ethylene Oxide		8.80E-05	3.19E-02	3.00E+01	3.13E+01	8.80E-05	3.19E-02	3.00E+01	3.13E+01
Ethyleneimine		1.90E-02	1.48E-04	--	--	1.90E-02	1.48E-04	--	--
Formaldehyde		1.30E-05	2.16E-01	9.80E+00	1.02E+01	1.30E-05	2.16E-01	9.00E+00	9.39E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Formic Acid		--	--	3.00E-01	3.13E-01	--	--	3.00E-01	3.13E-01
Furans		--	--	--	--	--	--	--	--
~Dibenzofuran		--	--	--	--	--	--	4.00E+00	4.17E+00
~Furan		--	--	--	--	--	--	4.00E+00	4.17E+00
~Tetrahydrofuran		--	--	2.00E+03	2.09E+03	--	--	2.00E+03	2.09E+03
Furfural		--	--	5.00E+01	5.21E+01	--	--	5.00E+01	5.21E+01
Glycidyl		--	--	1.00E+00	1.04E+00	--	--	1.00E+00	1.04E+00
Guanidine		--	--	--	--	--	--	4.00E+01	4.17E+01
Heptachlor		1.30E-03	2.16E-03	--	--	1.30E-03	2.16E-03	2.00E+00	2.09E+00
Heptachlor Epoxide		2.60E-03	1.08E-03	--	--	2.60E-03	1.08E-03	5.20E-02	5.42E-02
Hexabromobenzene		--	--	--	--	--	--	8.00E+00	8.34E+00
Hexachlorobenzene		4.60E-04	6.10E-03	--	--	5.10E-04	5.51E-03	3.20E+00	3.34E+00
Hexachlorobutadiene		2.20E-05	1.28E-01	--	--	2.20E-05	1.28E-01	4.00E+00	4.17E+00
Hexachlorocyclohexane, Alpha-		1.80E-03	1.56E-03	--	--	1.80E-03	1.56E-03	3.20E+01	3.34E+01
Hexachlorocyclohexane, Gamma- (Lindane)		3.10E-04	9.06E-03	--	--	3.10E-04	9.06E-03	1.20E+00	1.25E+00
Hexachlorocyclopentadiene		--	--	2.00E-01	2.09E-01	--	--	2.00E-01	2.09E-01
Hexachloroethane		1.10E-05	2.55E-01	3.00E+01	3.13E+01	1.10E-05	2.55E-01	3.00E+01	3.13E+01
Hexamethylene Diisocyanate, 1,6-		--	--	1.00E-02	1.04E-02	--	--	1.00E-02	1.04E-02
Hexane, N-		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02
Hexanone, 2-		--	--	3.00E+01	3.13E+01	--	--	3.00E+01	3.13E+01
Hydrazine		4.90E-03	5.73E-04	3.00E-02	3.13E-02	4.90E-03	5.73E-04	3.00E-02	3.13E-02
Hydrogen Chloride		--	--	2.00E+01	2.09E+01	--	--	9.00E+00	9.39E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Hydrogen Fluoride		--	--	1.40E+01	1.46E+01	--	--	1.40E+01	1.46E+01
Hydrogen Sulfide		--	--	2.00E+00	2.09E+00	--	--	2.00E+00	2.09E+00
Isobutyl Alcohol		--	--	--	--	--	--	1.20E+03	1.25E+03
Isopropalin		--	--	--	--	--	--	6.00E+01	6.26E+01
Isopropanol		--	--	2.00E+02	2.09E+02	--	--	2.00E+02	2.09E+02
JP-7		--	--	3.00E+02	3.13E+02	--	--	3.00E+02	3.13E+02
Lead Compounds		--	--	--	--	--	--	--	--
~Tetraethyl Lead		--	--	--	--	--	--	4.00E-04	4.17E-04
Mercury Compounds		--	--	--	--	--	--	--	--
~Mercury (elemental)		--	--	3.00E-01	3.13E-01	--	--	3.00E-02	3.13E-02
Merphos		--	--	--	--	--	--	1.20E-01	1.25E-01
Methacrylonitrile		--	--	3.00E+01	3.13E+01	--	--	3.00E+01	3.13E+01
Methanol		--	--	2.00E+04	2.09E+04	--	--	4.00E+03	4.17E+03
Methoxychlor		--	--	--	--	--	--	2.00E+01	2.09E+01
Methoxyethanol Acetate, 2-		--	--	1.00E+00	1.04E+00	--	--	1.00E+00	1.04E+00
Methoxyethanol, 2-		--	--	2.00E+01	2.09E+01	--	--	2.00E+01	2.09E+01
Methyl Acetate		--	--	--	--	--	--	4.00E+03	4.17E+03
Methyl Acrylate		--	--	2.00E+01	2.09E+01	--	--	2.00E+01	2.09E+01
Methyl Ethyl Ketone (2-Butanone)		--	--	5.00E+03	5.21E+03	--	--	5.00E+03	5.21E+03
Methyl Hydrazine		1.00E-03	2.81E-03	2.00E-02	2.09E-02	1.00E-03	2.81E-03	2.00E-02	2.09E-02
Methyl Isobutyl Ketone (4-methyl-2-pentan		--	--	3.00E+03	3.13E+03	--	--	3.00E+03	3.13E+03
Methyl Isocyanate		--	--	1.00E+00	1.04E+00	--	--	1.00E+00	1.04E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	**Cancer**	**RfC**	**Noncancer**	**IUR**	**Cancer**	**RfC**	**Noncancer**
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Methyl Methacrylate		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02
Methyl Styrene (Mixed Isomers)		--	--	4.00E+01	4.17E+01	--	--	4.00E+01	4.17E+01
Methyl tert-Butyl Ether (MTBE)		2.60E-07	1.08E+01	3.00E+03	3.13E+03	2.60E-07	1.08E+01	3.00E+03	3.13E+03
Methylene Chloride	M	1.00E-08	1.01E+02	6.00E+02	6.26E+02	1.00E-06	1.01E+00	4.00E+02	4.17E+02
Methylstyrene, Alpha-		--	--	--	--	--	--	2.80E+02	2.92E+02
Mineral oils		--	--	--	--	--	--	1.20E+04	1.25E+04
Mirex		5.10E-03	5.51E-04	--	--	5.10E-03	5.51E-04	8.00E-01	8.34E-01
Naled		--	--	--	--	--	--	8.00E+00	8.34E+00
Naphtha, High Flash Aromatic (HFAN)		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Nickel Carbonyl		2.60E-04	1.08E-02	1.40E-02	1.46E-02	2.60E-04	1.08E-02	1.40E-02	1.46E-02
Nitrobenzene		4.00E-05	7.02E-02	9.00E+00	9.39E+00	4.00E-05	7.02E-02	9.00E+00	9.39E+00
Nitromethane		8.80E-06	3.19E-01	5.00E+00	5.21E+00	8.80E-06	3.19E-01	5.00E+00	5.21E+00
Nitropropane, 2-		2.70E-03	1.04E-03	2.00E+01	2.09E+01	2.70E-03	1.04E-03	2.00E+01	2.09E+01
Nitroso-di-N-butylamine, N-		1.60E-03	1.75E-03	--	--	3.10E-03	9.06E-04	--	--
Nitrosodimethylamine, N-	M	1.40E-02	7.24E-05	4.00E-02	4.17E-02	1.40E-02	7.24E-05	4.00E-02	4.17E-02
Nitrosomethylethylamine, N-		6.30E-03	4.46E-04	--	--	6.30E-03	4.46E-04	--	--
Nitrotoluene, o-		--	--	--	--	5.50E-05	5.10E-02	3.60E+00	3.75E+00
Nonane, n-		--	--	2.00E+01	2.09E+01	--	--	2.00E+01	2.09E+01
Pebulate		--	--	--	--	--	--	2.00E+02	2.09E+02
Pentachlorobenzene		--	--	--	--	--	--	3.20E+00	3.34E+00
Pentachloroethane		--	--	--	--	2.25E-05	1.25E-01	--	--
Pentachloronitrobenzene		--	--	--	--	6.50E-05	4.32E-02	1.20E+01	1.25E+01

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Pentane, n-		--	--	1.00E+03	1.04E+03	--	--	1.00E+03	1.04E+03
Perfluorobutane Sulfonate		--	--	--	--	--	--	8.00E+01	8.34E+01
Phosgene		--	--	3.00E-01	3.13E-01	--	--	3.00E-01	3.13E-01
Phosphine		--	--	3.00E-01	3.13E-01	--	--	3.00E-01	3.13E-01
Phosphorus, White		--	--	--	--	--	--	8.00E-02	8.34E-02
Phthalates		--	--	--	--	--	--	--	--
~Dimethylterephthalate		--	--	--	--	--	--	4.00E+02	4.17E+02
Polychlorinated Biphenyls (PCBs)		--	--	--	--	--	--	--	--
~Aroclor 1016		2.00E-05	1.40E-01	--	--	2.00E-05	1.40E-01	2.80E-01	2.92E-01
~Aroclor 1221		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Aroclor 1232		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Aroclor 1242		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Aroclor 1248		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Aroclor 1254		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	8.00E-02	8.34E-02
~Aroclor 1260		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Aroclor 5460		--	--	--	--	--	--	2.40E+00	2.50E+00
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCE		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 1		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 1		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 1!		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 1		1.10E+00	2.55E-06	1.30E-03	1.36E-03	1.10E+00	2.55E-06	1.30E-03	1.36E-03
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 12		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0-2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2-6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6-16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16-30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	ED_{0-2}	2	2	yrs
Exposure Duration, child 2-6	ED_{2-6}	4	4	yrs
Exposure Duration, child 6-16	ED_{6-16}	10	10	yrs
Exposure Duration, adult 16-30	ED_{16-30}	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	Mutagen?	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114		1.10E-03	2.55E-03	1.30E+00	1.36E+00	1.10E-03	2.55E-03	1.30E+00	1.36E+00
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126		3.80E+00	7.39E-07	4.00E-04	4.17E-04	3.80E+00	7.39E-07	4.00E-04	4.17E-04
~Polychlorinated Biphenyls (high risk)		5.70E-04	4.93E-03	--	--	5.70E-04	4.93E-03	--	--
~Polychlorinated Biphenyls (low risk)		1.00E-04	2.81E-02	--	--	1.00E-04	2.81E-02	--	--
~Polychlorinated Biphenyls (lowest risk)		2.00E-05	1.40E-01	--	--	2.00E-05	1.40E-01	--	--
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)		1.10E-02	2.55E-04	1.30E-01	1.36E-01	1.10E-02	2.55E-04	1.30E-01	1.36E-01
Polynuclear Aromatic Hydrocarbons (PAHs		--	--	--	--	--	--	--	--
~Acenaphthene		--	--	--	--	--	--	2.40E+02	2.50E+02
~Anthracene		--	--	--	--	--	--	1.20E+03	1.25E+03
~Benz[a]anthracene	M	1.10E-04	9.22E-03	--	--	1.10E-04	9.22E-03	--	--
~Benzo[b]fluoranthene	M	1.10E-04	9.22E-03	--	--	1.10E-04	9.22E-03	--	--
~Chloronaphthalene, Beta-		--	--	--	--	--	--	3.20E+02	3.34E+02
~Chrysene	M	1.10E-05	9.22E-02	--	--	1.10E-05	9.22E-02	--	--
~Fluorene		--	--	--	--	--	--	1.60E+02	1.67E+02
~Methylnaphthalene, 1-		--	--	--	--	7.25E-06	3.87E-01	2.80E+02	2.92E+02
~Methylnaphthalene, 2-		--	--	--	--	--	--	1.60E+01	1.67E+01
~Naphthalene		3.40E-05	8.26E-02	3.00E+00	3.13E+00	3.40E-05	8.26E-02	3.00E+00	3.13E+00
~Pyrene		--	--	--	--	--	--	1.20E+02	1.25E+02
Profluralin		--	--	--	--	--	--	2.40E+01	2.50E+01
Propargyl Alcohol		--	--	--	--	--	--	8.00E+00	8.34E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Propionaldehyde		--	--	8.00E+00	8.34E+00	--	--	8.00E+00	8.34E+00
Propyl benzene		--	--	1.00E+03	1.04E+03	--	--	1.00E+03	1.04E+03
Propylene		--	--	3.00E+03	3.13E+03	--	--	3.00E+03	3.13E+03
Propylene Glycol Monoethyl Ether		--	--	--	--	--	--	2.80E+03	2.92E+03
Propylene Glycol Monomethyl Ether		--	--	2.00E+03	2.09E+03	--	--	2.00E+03	2.09E+03
Propylene Oxide		3.70E-06	7.59E-01	3.00E+01	3.13E+01	3.70E-06	7.59E-01	3.00E+01	3.13E+01
Pyridine		--	--	--	--	--	--	4.00E+00	4.17E+00
Ronnel		--	--	--	--	--	--	2.00E+02	2.09E+02
Styrene		--	--	1.00E+03	1.04E+03	--	--	9.00E+02	9.39E+02
Sulfur Trioxide		--	--	1.00E+00	1.04E+00	--	--	1.00E+00	1.04E+00
Terbufos		--	--	--	--	--	--	1.00E-01	1.04E-01
Tetrachlorobenzene, 1,2,4,5-		--	--	--	--	--	--	1.20E+00	1.25E+00
Tetrachloroethane, 1,1,1,2-		7.40E-06	3.79E-01	--	--	7.40E-06	3.79E-01	1.20E+02	1.25E+02
Tetrachloroethane, 1,1,2,2-		5.80E-05	4.84E-02	--	--	5.80E-05	4.84E-02	8.00E+01	8.34E+01
Tetrachloroethylene		2.60E-07	1.08E+01	4.00E+01	4.17E+01	5.90E-06	4.76E-01	3.50E+01	3.65E+01
Tetrachlorotoluene, p- alpha, alpha, alpha-		--	--	--	--	5.00E-03	5.62E-04	--	--
Tetrafluoroethane, 1,1,1,2-		--	--	8.00E+04	8.34E+04	--	--	8.00E+04	8.34E+04
Thallium Acetate		--	--	--	--	--	--	2.40E-02	2.50E-02
Titanium Tetrachloride		--	--	1.00E-01	1.04E-01	--	--	1.00E-01	1.04E-01
Toluene		--	--	5.00E+03	5.21E+03	--	--	3.00E+02	3.13E+02
Total Petroleum Hydrocarbons (Aliphatic H		--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (Aliphatic L		--	--	6.00E+02	6.26E+02	--	--	6.00E+02	6.26E+02

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	Mutagen?	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Total Petroleum Hydrocarbons (Aliphatic M		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Total Petroleum Hydrocarbons (Aromatic L		--	--	3.00E+01	3.13E+01	--	--	3.00E+01	3.13E+01
Total Petroleum Hydrocarbons (Aromatic M		--	--	3.00E+00	3.13E+00	--	--	3.00E+00	3.13E+00
Tri-n-butyltin		--	--	--	--	--	--	1.20E+00	1.25E+00
Triallate		--	--	--	--	--	--	5.20E+01	5.42E+01
Tribromobenzene, 1,2,4-		--	--	--	--	--	--	2.00E+01	2.09E+01
Trichloro-1,2,2-trifluoroethane, 1,1,2-		--	--	3.00E+04	3.13E+04	--	--	3.00E+04	3.13E+04
Trichlorobenzene, 1,2,3-		--	--	--	--	--	--	3.20E+00	3.34E+00
Trichlorobenzene, 1,2,4-		--	--	2.00E+00	2.09E+00	7.25E-06	3.87E-01	2.00E+00	2.09E+00
Trichloroethane, 1,1,1-		--	--	5.00E+03	5.21E+03	--	--	1.00E+03	1.04E+03
Trichloroethane, 1,1,2-		1.60E-05	1.75E-01	2.00E-01	2.09E-01	1.60E-05	1.75E-01	2.00E-01	2.09E-01
Trichloroethylene	M (TCE)	4.10E-06	4.78E-01	2.00E+00	2.09E+00	4.10E-06	4.78E-01	2.00E+00	2.09E+00
Trichlorofluoromethane		--	--	7.00E+02	7.30E+02	--	--	7.00E+02	7.30E+02
Trichloropropane, 1,1,2-		--	--	--	--	--	--	2.00E+01	2.09E+01
Trichloropropane, 1,2,3-	M	--	--	3.00E-01	3.13E-01	7.50E-03	1.35E-04	3.00E-01	3.13E-01
Trichloropropene, 1,2,3-		--	--	3.00E-01	3.13E-01	--	--	3.00E-01	3.13E-01
Triethylamine		--	--	7.00E+00	7.30E+00	--	--	7.00E+00	7.30E+00
Trifluralin		--	--	--	--	1.93E-06	1.46E+00	3.00E+01	3.13E+01
Trimethylbenzene, 1,2,3-		--	--	5.00E+00	5.21E+00	--	--	5.00E+00	5.21E+00
Trimethylbenzene, 1,2,4-		--	--	7.00E+00	7.30E+00	--	--	7.00E+00	7.30E+00
Trimethylbenzene, 1,3,5-		--	--	--	--	--	--	4.00E+01	4.17E+01
Vernolate		--	--	--	--	--	--	4.00E+00	4.17E+00

Table C-2. USEPA RSLs and DTSC-SLs for Inhalation of Residential Air

Definition	Variable	USEPA Value	DTSC Value	
Age-dependent Adjustment Factor, 0-2	$ADAF_{0\text{-}2}$	10	10	dimensionless
Age-dependent Adjustment Factor, 2-6	$ADAF_{2\text{-}6}$	3	3	dimensionless
Age-dependent Adjustment Factor, 6-16	$ADAF_{6\text{-}16}$	3	3	dimensionless
Age-dependent Adjustment Factor, 16-30	$ADAF_{16\text{-}30}$	1	1	dimensionless
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, child	$AT_{nc,c}$	6	6	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Carcinogenic adjustment factor, inhalation	CAF_I	0.756	0.756	dimensionless
Exposure Duration, child 0-2	$ED_{0\text{-}2}$	2	2	yrs
Exposure Duration, child 2-6	$ED_{2\text{-}6}$	4	4	yrs
Exposure Duration, child 6-16	$ED_{6\text{-}16}$	10	10	yrs
Exposure Duration, adult 16-30	$ED_{16\text{-}30}$	10	10	yrs
Exposure Duration, child	ED_c	6	6	yrs
Exposure Duration, resident	ED_r	26	26	yrs
Exposure Frequency, resident	EF_r	350	350	days/yr
Exposure Time, resident	ET_r	24	24	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Mutagenic adjustment factor, inhalation	MAF_I	0.244	0.244	dimensionless
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	

RSL Derivation:

Carcinogens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_r \times EF_r \times ET_r}$$

Mutagens:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{EF_r \times ET_r \times \left[\begin{array}{c}(ED_{0-2} \times IUR \times ADAF_{0-2}) + (ED_{2-6} \times IUR \times ADAF_{2-6}) \\ +(ED_{6-16} \times IUR \times ADAF_{6-16}) + (ED_{16-26} \times IUR \times ADAF_{16-26})\end{array}\right]}$$

Trichloroethene:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times EF_r \times ET_r \times \left[(CAF_I \times ED_r) + \left(\begin{array}{c}(MAF_I \times ED_{0-2} \times ADAF_{0-2}) + (MAF_I \times ED_{2-6} \times ADAF_{2-6}) \\ +(MAF_I \times ED_{6-16} \times ADAF_{6-16}) + (MAF_I \times ED_{16-26} \times ADAF_{16-26})\end{array}\right)\right]}$$

Vinyl Chloride:

$$RSL = \frac{TR}{IUR + \left(\frac{IUR \times EF_r \times ED_r \times ET_r \times \frac{1\ day}{24\ hour}}{AT_c \times 365\frac{days}{year}}\right)}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,c} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_c \times EF_r \times ET_r}$$

		USEPA RSL for Residential Air				DTSC-SL for Residential Air			
		IUR	Cancer	RfC	Noncancer	IUR	Cancer	RfC	Noncancer
Analyte	**Mutagen?**	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)$^{-1}$	(µg/m^3)	(µg/m^3)	(µg/m^3)
Vinyl Acetate		--	--	2.00E+02	2.09E+02	--	--	2.00E+02	2.09E+02
Vinyl Bromide		3.20E-05	8.77E-02	3.00E+00	3.13E+00	3.20E-05	8.77E-02	3.00E+00	3.13E+00
Vinyl Chloride	M (VC)	4.40E-06	1.68E-01	1.00E+02	1.04E+02	7.80E-05	9.45E-03	1.00E+02	1.04E+02
Xylene, P-		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Xylene, m-		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Xylene, o-		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Xylenes		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Additional Analytes									
Chloropropane, 2-		--	--	1.00E+02	1.04E+02	--	--	1.00E+02	1.04E+02
Dichlorobenzene, 1,3-		--	--	--	--	--	--	1.20E+02	1.25E+02
Ethyl tert-butyl ether		--	--	--	--	--	--	--	--
Methylcyclohexane		--	--	--	--	--	--	6.00E+03	6.26E+03
tert-Amyl methyl ether		--	--	--	--	--	--	--	--
tert-Butyl alcohol		--	--	--	--	--	--	--	--
Dichlorobiphenyls		--	--	--	--	--	--	--	--
Monochlorobiphenyls		--	--	--	--	--	--	--	--

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

Analyte	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
	IUR (µg/m^3)$^{-1}$	Cancer (µg/m^3)	RfC (µg/m^3)	Noncancer (µg/m^3)	IUR (µg/m^3)$^{-1}$	Cancer (µg/m^3)	RfC (µg/m^3)	Noncancer (µg/m^3)
USEPA RSL Analytes								
Acetaldehyde	2.20E-06	5.57E+00	9.00E+00	3.94E+01	2.70E-06	4.54E+00	9.00E+00	3.94E+01
Acetone	--	--	3.10E+04	1.36E+05	--	--	3.10E+04	1.36E+05
Acetone Cyanohydrin	--	--	2.00E+00	8.76E+00	--	--	2.00E+00	8.76E+00
Acetonitrile	--	--	6.00E+01	2.63E+02	--	--	6.00E+01	2.63E+02
Acetophenone	--	--	--	--	--	--	4.00E+02	1.75E+03
Acrolein	--	--	2.00E-02	8.76E-02	--	--	2.00E-02	8.76E-02
Acrylic Acid	--	--	1.00E+00	4.38E+00	--	--	1.00E+00	4.38E+00
Acrylonitrile	6.80E-05	1.80E-01	2.00E+00	8.76E+00	2.90E-04	4.23E-02	2.00E+00	8.76E+00
Aldrin	4.90E-03	2.50E-03	--	--	4.90E-03	2.50E-03	1.20E-01	5.26E-01
Allyl Alcohol	--	--	1.00E-01	4.38E-01	--	--	1.00E-01	4.38E-01
Allyl Chloride	6.00E-06	2.04E+00	1.00E+00	4.38E+00	6.00E-06	2.04E+00	1.00E+00	4.38E+00
Ammonia	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Amyl Alcohol, tert-	--	--	3.00E+00	1.31E+01	--	--	3.00E+00	1.31E+01
Azobenzene	3.10E-05	3.96E-01	--	--	3.10E-05	3.96E-01	--	--
Benefin	--	--	--	--	--	--	1.20E+03	5.26E+03
Benzaldehyde	--	--	--	--	--	--	4.00E+02	1.75E+03
Benzene	7.80E-06	1.57E+00	3.00E+01	1.31E+02	2.90E-05	4.23E-01	3.00E+00	1.31E+01
Benzenethiol	--	--	--	--	--	--	4.00E+00	1.75E+01
Benzotrichloride	--	--	--	--	3.25E-03	3.77E-03	--	--
Benzyl Chloride	4.90E-05	2.50E-01	1.00E+00	4.38E+00	4.90E-05	2.50E-01	1.00E+00	4.38E+00
Biphenyl, 1,1'-	--	--	4.00E-01	1.75E+00	2.00E-06	6.13E+00	4.00E-01	1.75E+00
Bis(2-chloro-1-methylethyl) ether	1.00E-05	1.23E+00	--	--	1.00E-05	1.23E+00	1.60E+02	7.01E+02
Bis(2-chloroethyl)ether	3.30E-04	3.72E-02	--	--	7.10E-04	1.73E-02	--	--
Bis(chloromethyl)ether	6.20E-02	1.98E-04	--	--	6.20E-02	1.98E-04	--	--
Boron Trichloride	--	--	2.00E+01	8.76E+01	--	--	2.00E+01	8.76E+01
Boron Trifluoride	--	--	1.30E+01	5.69E+01	--	--	7.00E-01	3.07E+00
Bromo-2-chloroethane, 1-	6.00E-04	2.04E-02	--	--	6.00E-04	2.04E-02	--	--
Bromobenzene	--	--	6.00E+01	2.63E+02	--	--	6.00E+01	2.63E+02
Bromochloromethane	--	--	4.00E+01	1.75E+02	--	--	4.00E+01	1.75E+02
Bromodichloromethane	3.70E-05	3.31E-01	--	--	3.70E-05	3.31E-01	8.00E+01	3.50E+02
Bromoform	1.10E-06	1.11E+01	--	--	1.10E-06	1.11E+01	8.00E+01	3.50E+02
Bromomethane	--	--	5.00E+00	2.19E+01	--	--	5.00E+00	2.19E+01

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Bromophos	--	--	--	--	--	--	2.00E+01	8.76E+01
Bromoxynil Octanoate	--	--	--	--	--	--	8.00E+01	3.50E+02
Butadiene, 1,3-	3.00E-05	4.09E-01	2.00E+00	8.76E+00	1.70E-04	7.21E-02	2.00E+00	8.76E+00
Butanol, N-	--	--	--	--	--	--	4.00E+02	1.75E+03
Butyl alcohol, sec-	--	--	3.00E+04	1.31E+05	--	--	3.00E+04	1.31E+05
Butylate	--	--	--	--	--	--	2.00E+02	8.76E+02
Butylbenzene, n-	--	--	--	--	--	--	2.00E+02	8.76E+02
Butylbenzene, sec-	--	--	--	--	--	--	4.00E+02	1.75E+03
Butylbenzene, tert-	--	--	--	--	--	--	4.00E+02	1.75E+03
Carbon Disulfide	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Carbon Tetrachloride	6.00E-06	2.04E+00	1.00E+02	4.38E+02	4.20E-05	2.92E-01	4.00E+01	1.75E+02
Chloral Hydrate	--	--	--	--	--	--	4.00E+02	1.75E+03
Chlordane	1.00E-04	1.23E-01	7.00E-01	3.07E+00	3.40E-04	3.61E-02	7.00E-01	3.07E+00
Chlorine	--	--	1.50E-01	6.57E-01	--	--	1.50E-01	6.57E-01
Chlorine Dioxide	--	--	2.00E-01	8.76E-01	--	--	2.00E-01	8.76E-01
Chloro-1,1-difluoroethane, 1-	--	--	5.00E+04	2.19E+05	--	--	5.00E+04	2.19E+05
Chloro-1,3-butadiene, 2-	3.00E-04	4.09E-02	2.00E+01	8.76E+01	3.00E-04	4.09E-02	2.00E+01	8.76E+01
Chloroacetaldehyde, 2-	--	--	--	--	6.75E-05	1.82E-01	--	--
Chlorobenzene	--	--	5.00E+01	2.19E+02	--	--	5.00E+01	2.19E+02
Chlorobenzotrifluoride, 4-	--	--	3.00E+02	1.31E+03	--	--	3.00E+02	1.31E+03
Chlorobutane, 1-	--	--	--	--	--	--	1.60E+02	7.01E+02
Chlorodifluoromethane	--	--	5.00E+04	2.19E+05	--	--	5.00E+04	2.19E+05
Chloroethanol, 2-	--	--	--	--	--	--	8.00E+01	3.50E+02
Chloroform	2.30E-05	5.33E-01	9.80E+01	4.29E+02	2.30E-05	5.33E-01	9.80E+01	4.29E+02
Chloromethane	--	--	9.00E+01	3.94E+02	--	--	9.00E+01	3.94E+02
Chloromethyl Methyl Ether	6.90E-04	1.78E-02	--	--	6.90E-04	1.78E-02	--	--
Chlorophenol, 2-	--	--	--	--	--	--	2.00E+01	8.76E+01
Chloropicrin	--	--	4.00E-01	1.75E+00	--	--	4.00E-01	1.75E+00
Chlorotoluene, o-	--	--	--	--	--	--	8.00E+01	3.50E+02
Chlorotoluene, p-	--	--	--	--	--	--	8.00E+01	3.50E+02
Coke Oven Emissions	6.20E-04	1.98E-02	--	--	6.20E-04	1.98E-02	--	--
Crotonaldehyde, trans-	--	--	--	--	4.75E-04	2.58E-02	4.00E+00	1.75E+01
Cumene	--	--	4.00E+02	1.75E+03	--	--	4.00E+02	1.75E+03

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Cyanides	--	--	--	--	--	--	--	--
~Cyanide (CN-)	--	--	8.00E-01	3.50E+00	--	--	8.00E-01	3.50E+00
~Cyanogen	--	--	--	--	--	--	4.00E+00	1.75E+01
~Cyanogen Bromide	--	--	--	--	--	--	3.60E+02	1.58E+03
~Cyanogen Chloride	--	--	--	--	--	--	2.00E+02	8.76E+02
~Hydrogen Cyanide	--	--	8.00E-01	3.50E+00	--	--	8.00E-01	3.50E+00
~Thiocyanic Acid	--	--	--	--	--	--	8.00E-01	3.50E+00
Cyclohexane	--	--	6.00E+03	2.63E+04	--	--	6.00E+03	2.63E+04
Cyclohexanone	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Cyclohexene	--	--	1.00E+03	4.38E+03	--	--	1.00E+03	4.38E+03
Cyclohexylamine	--	--	--	--	--	--	8.00E+02	3.50E+03
DDE, p,p'-	9.70E-05	1.26E-01	--	--	9.70E-05	1.26E-01	--	--
Dibenzothiophene	--	--	--	--	--	--	4.00E+01	1.75E+02
Dibromo-3-chloropropane, 1,2-	6.00E-03	2.04E-03	2.00E-01	8.76E-01	6.00E-03	2.04E-03	2.00E-01	8.76E-01
Dibromobenzene, 1,3-	--	--	--	--	--	--	1.60E+00	7.01E+00
Dibromobenzene, 1,4-	--	--	--	--	--	--	4.00E+01	1.75E+02
Dibromochloromethane	2.70E-05	4.54E-01	--	--	2.70E-05	4.54E-01	8.00E+01	3.50E+02
Dibromoethane, 1,2-	6.00E-04	2.04E-02	9.00E+00	3.94E+01	6.00E-04	2.04E-02	8.00E-01	3.50E+00
Dibromomethane (Methylene Bromide)	--	--	4.00E+00	1.75E+01	--	--	4.00E+00	1.75E+01
Dichloro-2-butene, 1,4-	4.20E-03	2.92E-03	--	--	4.20E-03	2.92E-03	--	--
Dichloro-2-butene, cis-1,4-	4.20E-03	2.92E-03	--	--	4.20E-03	2.92E-03	--	--
Dichloro-2-butene, trans-1,4-	4.20E-03	2.92E-03	--	--	4.20E-03	2.92E-03	--	--
Dichlorobenzene, 1,2-	--	--	2.00E+02	8.76E+02	--	--	2.00E+02	8.76E+02
Dichlorobenzene, 1,4-	1.10E-05	1.11E+00	8.00E+02	3.50E+03	1.10E-05	1.11E+00	8.00E+02	3.50E+03
Dichlorodifluoromethane	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Dichloroethane, 1,1-	1.60E-06	7.67E+00	--	--	1.60E-06	7.67E+00	8.00E+02	3.50E+03
Dichloroethane, 1,2-	2.60E-05	4.72E-01	7.00E+00	3.07E+01	2.60E-05	4.72E-01	7.00E+00	3.07E+01
Dichloroethylene, 1,1-	--	--	2.00E+02	8.76E+02	--	--	7.00E+01	3.07E+02
Dichloroethylene, 1,2-cis-	--	--	--	--	--	--	8.00E+00	3.50E+01
Dichloroethylene, 1,2-trans-	--	--	--	--	--	--	8.00E+01	3.50E+02
Dichloropropane, 1,2-	1.00E-05	1.23E+00	4.00E+00	1.75E+01	1.00E-05	1.23E+00	4.00E+00	1.75E+01
Dichloropropane, 1,3-	--	--	--	--	--	--	8.00E+01	3.50E+02
Dichloropropene, 1,3-	4.00E-06	3.07E+00	2.00E+01	8.76E+01	1.60E-05	7.67E-01	2.00E+01	8.76E+01
Dicyclopentadiene	--	--	3.00E-01	1.31E+00	--	--	3.00E-01	1.31E+00

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Dieldrin	4.60E-03	2.67E-03	--	--	4.60E-03	2.67E-03	2.00E-01	8.76E-01
Diethylformamide	--	--	--	--	--	--	4.00E+00	1.75E+01
Difluoroethane, 1,1-	--	--	4.00E+04	1.75E+05	--	--	4.00E+04	1.75E+05
Dihydrosafrole	1.30E-05	9.43E-01	--	--	1.30E-05	9.43E-01	--	--
Diisopropyl Ether	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Diisopropyl Methylphosphonate	--	--	--	--	--	--	3.20E+02	1.40E+03
Dimethylaniline, N,N-	--	--	--	--	--	--	8.00E+00	3.50E+01
Dimethylformamide	--	--	3.00E+01	1.31E+02	--	--	3.00E+01	1.31E+02
Dimethylhydrazine, 1,1-	--	--	2.00E-03	8.76E-03	--	--	2.00E-03	8.76E-03
Dimethylhydrazine, 1,2-	1.60E-01	7.67E-05	--	--	1.60E-01	7.67E-05	--	--
Dimethylvinylchloride	1.30E-05	9.43E-01	--	--	1.30E-05	9.43E-01	--	--
Dioxane, 1,4-	5.00E-06	2.45E+00	3.00E+01	1.31E+02	7.70E-06	1.59E+00	3.00E+01	1.31E+02
Dioxins	--	--	--	--	--	--	--	--
~TCDD, 2,3,7,8-	3.80E+01	3.23E-07	4.00E-05	1.75E-04	3.80E+01	3.23E-07	4.00E-05	1.75E-04
Dithiane, 1,4-	--	--	--	--	--	--	4.00E+01	1.75E+02
EPTC	--	--	--	--	--	--	1.00E+02	4.38E+02
Endosulfan	--	--	--	--	--	--	2.40E+01	1.05E+02
Epichlorohydrin	1.20E-06	1.02E+01	1.00E+00	4.38E+00	2.30E-05	5.33E-01	1.00E+00	4.38E+00
Epoxybutane, 1,2-	--	--	2.00E+01	8.76E+01	--	--	2.00E+01	8.76E+01
Ethoxyethanol Acetate, 2-	--	--	6.00E+01	2.63E+02	--	--	6.00E+01	2.63E+02
Ethoxyethanol, 2-	--	--	2.00E+02	8.76E+02	--	--	7.00E+01	3.07E+02
Ethyl Acetate	--	--	7.00E+01	3.07E+02	--	--	7.00E+01	3.07E+02
Ethyl Acrylate	--	--	8.00E+00	3.50E+01	1.20E-05	1.02E+00	8.00E+00	3.50E+01
Ethyl Chloride (Chloroethane)	--	--	1.00E+04	4.38E+04	1.18E-06	1.04E+01	1.00E+04	4.38E+04
Ethyl Ether	--	--	--	--	--	--	8.00E+02	3.50E+03
Ethyl Methacrylate	--	--	3.00E+02	1.31E+03	--	--	3.00E+02	1.31E+03
Ethylbenzene	2.50E-06	4.91E+00	1.00E+03	4.38E+03	2.50E-06	4.91E+00	1.00E+03	4.38E+03
Ethylene Diamine	--	--	--	--	--	--	3.60E+02	1.58E+03
Ethylene Oxide	8.80E-05	1.39E-01	3.00E+01	1.31E+02	8.80E-05	1.39E-01	3.00E+01	1.31E+02
Ethyleneimine	1.90E-02	6.45E-04	--	--	1.90E-02	6.45E-04	--	--
Formaldehyde	1.30E-05	9.43E-01	9.80E+00	4.29E+01	1.30E-05	9.43E-01	9.00E+00	3.94E+01
Formic Acid	--	--	3.00E-01	1.31E+00	--	--	3.00E-01	1.31E+00

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Furans	--	--	--	--	--	--	--	--
~Dibenzofuran	--	--	--	--	--	--	4.00E+00	1.75E+01
~Furan	--	--	--	--	--	--	4.00E+00	1.75E+01
~Tetrahydrofuran	--	--	2.00E+03	8.76E+03	--	--	2.00E+03	8.76E+03
Furfural	--	--	5.00E+01	2.19E+02	--	--	5.00E+01	2.19E+02
Glycidyl	--	--	1.00E+00	4.38E+00	--	--	1.00E+00	4.38E+00
Guanidine	--	--	--	--	--	--	4.00E+01	1.75E+02
Heptachlor	1.30E-03	9.43E-03	--	--	1.30E-03	9.43E-03	2.00E+00	8.76E+00
Heptachlor Epoxide	2.60E-03	4.72E-03	--	--	2.60E-03	4.72E-03	5.20E-02	2.28E-01
Hexabromobenzene	--	--	--	--	--	--	8.00E+00	3.50E+01
Hexachlorobenzene	4.60E-04	2.67E-02	--	--	5.10E-04	2.40E-02	3.20E+00	1.40E+01
Hexachlorobutadiene	2.20E-05	5.57E-01	--	--	2.20E-05	5.57E-01	4.00E+00	1.75E+01
Hexachlorocyclohexane, Alpha-	1.80E-03	6.81E-03	--	--	1.80E-03	6.81E-03	3.20E+01	1.40E+02
Hexachlorocyclohexane, Gamma- (Lindane)	3.10E-04	3.96E-02	--	--	3.10E-04	3.96E-02	1.20E+00	5.26E+00
Hexachlorocyclopentadiene	--	--	2.00E-01	8.76E-01	--	--	2.00E-01	8.76E-01
Hexachloroethane	1.10E-05	1.11E+00	3.00E+01	1.31E+02	1.10E-05	1.11E+00	3.00E+01	1.31E+02
Hexamethylene Diisocyanate, 1,6-	--	--	1.00E-02	4.38E-02	--	--	1.00E-02	4.38E-02
Hexane, N-	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Hexanone, 2-	--	--	3.00E+01	1.31E+02	--	--	3.00E+01	1.31E+02
Hydrazine	4.90E-03	2.50E-03	3.00E-02	1.31E-01	4.90E-03	2.50E-03	3.00E-02	1.31E-01
Hydrogen Chloride	--	--	2.00E+01	8.76E+01	--	--	9.00E+00	3.94E+01
Hydrogen Fluoride	--	--	1.40E+01	6.13E+01	--	--	1.40E+01	6.13E+01
Hydrogen Sulfide	--	--	2.00E+00	8.76E+00	--	--	2.00E+00	8.76E+00
Isobutyl Alcohol	--	--	--	--	--	--	1.20E+03	5.26E+03
Isopropalin	--	--	--	--	--	--	6.00E+01	2.63E+02
Isopropanol	--	--	2.00E+02	8.76E+02	--	--	2.00E+02	8.76E+02
JP-7	--	--	3.00E+02	1.31E+03	--	--	3.00E+02	1.31E+03
Lead Compounds	--	--	--	--	--	--	--	--
~Tetraethyl Lead	--	--	--	--	--	--	4.00E-04	1.75E-03
Mercury Compounds	--	--	--	--	--	--	--	--
~Mercury (elemental)	--	--	3.00E-01	1.31E+00	--	--	3.00E-02	1.31E-01
Merphos	--	--	--	--	--	--	1.20E-01	5.26E-01
Methacrylonitrile	--	--	3.00E+01	1.31E+02	--	--	3.00E+01	1.31E+02
Methanol	--	--	2.00E+04	8.76E+04	--	--	4.00E+03	1.75E+04

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Methoxychlor	--	--	--	--	--	--	2.00E+01	8.76E+01
Methoxyethanol Acetate, 2-	--	--	1.00E+00	4.38E+00	--	--	1.00E+00	4.38E+00
Methoxyethanol, 2-	--	--	2.00E+01	8.76E+01	--	--	2.00E+01	8.76E+01
Methyl Acetate	--	--	--	--	--	--	4.00E+03	1.75E+04
Methyl Acrylate	--	--	2.00E+01	8.76E+01	--	--	2.00E+01	8.76E+01
Methyl Ethyl Ketone (2-Butanone)	--	--	5.00E+03	2.19E+04	--	--	5.00E+03	2.19E+04
Methyl Hydrazine	1.00E-03	1.23E-02	2.00E-02	8.76E-02	1.00E-03	1.23E-02	2.00E-02	8.76E-02
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	--	--	3.00E+03	1.31E+04	--	--	3.00E+03	1.31E+04
Methyl Isocyanate	--	--	1.00E+00	4.38E+00	--	--	1.00E+00	4.38E+00
Methyl Methacrylate	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Methyl Styrene (Mixed Isomers)	--	--	4.00E+01	1.75E+02	--	--	4.00E+01	1.75E+02
Methyl tert-Butyl Ether (MTBE)	2.60E-07	4.72E+01	3.00E+03	1.31E+04	2.60E-07	4.72E+01	3.00E+03	1.31E+04
Methylene Chloride	1.00E-08	1.23E+03	6.00E+02	2.63E+03	1.00E-06	1.23E+01	4.00E+02	1.75E+03
Methylstyrene, Alpha-	--	--	--	--	--	--	2.80E+02	1.23E+03
Mineral oils	--	--	--	--	--	--	1.20E+04	5.26E+04
Mirex	5.10E-03	2.40E-03	--	--	5.10E-03	2.40E-03	8.00E-01	3.50E+00
Naled	--	--	--	--	--	--	8.00E+00	3.50E+01
Naphtha, High Flash Aromatic (HFAN)	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Nickel Carbonyl	2.60E-04	4.72E-02	1.40E-02	6.13E-02	2.60E-04	4.72E-02	1.40E-02	6.13E-02
Nitrobenzene	4.00E-05	3.07E-01	9.00E+00	3.94E+01	4.00E-05	3.07E-01	9.00E+00	3.94E+01
Nitromethane	8.80E-06	1.39E+00	5.00E+00	2.19E+01	8.80E-06	1.39E+00	5.00E+00	2.19E+01
Nitropropane, 2-	2.70E-03	4.54E-03	2.00E+01	8.76E+01	2.70E-03	4.54E-03	2.00E+01	8.76E+01
Nitroso-di-N-butylamine, N-	1.60E-03	7.67E-03	--	--	3.10E-03	3.96E-03	--	--
Nitrosodimethylamine, N-	1.40E-02	8.76E-04	4.00E-02	1.75E-01	1.40E-02	8.76E-04	4.00E-02	1.75E-01
Nitrosomethylethylamine, N-	6.30E-03	1.95E-03	--	--	6.30E-03	1.95E-03	--	--
Nitrotoluene, o-	--	--	--	--	5.50E-05	2.23E-01	3.60E+00	1.58E+01
Nonane, n-	--	--	2.00E+01	8.76E+01	--	--	2.00E+01	8.76E+01
Pebulate	--	--	--	--	--	--	2.00E+02	8.76E+02
Pentachlorobenzene	--	--	--	--	--	--	3.20E+00	1.40E+01
Pentachloroethane	--	--	--	--	2.25E-05	5.45E-01	--	--
Pentachloronitrobenzene	--	--	--	--	6.50E-05	1.89E-01	1.20E+01	5.26E+01
Pentane, n-	--	--	1.00E+03	4.38E+03	--	--	1.00E+03	4.38E+03
Perfluorobutane Sulfonate	--	--	--	--	--	--	8.00E+01	3.50E+02
Phosgene	--	--	3.00E-01	1.31E+00	--	--	3.00E-01	1.31E+00

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Phosphine	--	--	3.00E-01	1.31E+00	--	--	3.00E-01	1.31E+00
Phosphorus, White	--	--	--	--	--	--	8.00E-02	3.50E-01
Phthalates	--	--	--	--	--	--	--	--
~Dimethylterephthalate	--	--	--	--	--	--	4.00E+02	1.75E+03
Polychlorinated Biphenyls (PCBs)	--	--	--	--	--	--	--	--
~Aroclor 1016	2.00E-05	6.13E-01	--	--	2.00E-05	6.13E-01	2.80E-01	1.23E+00
~Aroclor 1221	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Aroclor 1232	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Aroclor 1242	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Aroclor 1248	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Aroclor 1254	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	8.00E-02	3.50E-01
~Aroclor 1260	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Aroclor 5460	--	--	--	--	--	--	2.40E+00	1.05E+01
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	1.10E+00	1.11E-05	1.30E-03	5.69E-03	1.10E+00	1.11E-05	1.30E-03	5.69E-03
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	1.10E-03	1.11E-02	1.30E+00	5.69E+00	1.10E-03	1.11E-02	1.30E+00	5.69E+00
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	3.80E+00	3.23E-06	4.00E-04	1.75E-03	3.80E+00	3.23E-06	4.00E-04	1.75E-03
~Polychlorinated Biphenyls (high risk)	5.70E-04	2.15E-02	--	--	5.70E-04	2.15E-02	--	--
~Polychlorinated Biphenyls (low risk)	1.00E-04	1.23E-01	--	--	1.00E-04	1.23E-01	--	--
~Polychlorinated Biphenyls (lowest risk)	2.00E-05	6.13E-01	--	--	2.00E-05	6.13E-01	--	--
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	1.10E-02	1.11E-03	1.30E-01	5.69E-01	1.10E-02	1.11E-03	1.30E-01	5.69E-01

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Polynuclear Aromatic Hydrocarbons (PAHs)	--	--	--	--	--	--	--	--
~Acenaphthene	--	--	--	--	--	--	2.40E+02	1.05E+03
~Anthracene	--	--	--	--	--	--	1.20E+03	5.26E+03
~Benz[a]anthracene	1.10E-04	1.11E-01	--	--	1.10E-04	1.11E-01	--	--
~Benzo[b]fluoranthene	1.10E-04	1.11E-01	--	--	1.10E-04	1.11E-01	--	--
~Chloronaphthalene, Beta-	--	--	--	--	--	--	3.20E+02	1.40E+03
~Chrysene	1.10E-05	1.11E+00	--	--	1.10E-05	1.11E+00	--	--
~Fluorene	--	--	--	--	--	--	1.60E+02	7.01E+02
~Methylnaphthalene, 1-	--	--	--	--	7.25E-06	1.69E+00	2.80E+02	1.23E+03
~Methylnaphthalene, 2-	--	--	--	--	--	--	1.60E+01	7.01E+01
~Naphthalene	3.40E-05	3.61E-01	3.00E+00	1.31E+01	3.40E-05	3.61E-01	3.00E+00	1.31E+01
~Pyrene	--	--	--	--	--	--	1.20E+02	5.26E+02
Profluralin	--	--	--	--	--	--	2.40E+01	1.05E+02
Propargyl Alcohol	--	--	--	--	--	--	8.00E+00	3.50E+01
Propionaldehyde	--	--	8.00E+00	3.50E+01	--	--	8.00E+00	3.50E+01
Propyl benzene	--	--	1.00E+03	4.38E+03	--	--	1.00E+03	4.38E+03
Propylene	--	--	3.00E+03	1.31E+04	--	--	3.00E+03	1.31E+04
Propylene Glycol Monoethyl Ether	--	--	--	--	--	--	2.80E+03	1.23E+04
Propylene Glycol Monomethyl Ether	--	--	2.00E+03	8.76E+03	--	--	2.00E+03	8.76E+03
Propylene Oxide	3.70E-06	3.31E+00	3.00E+01	1.31E+02	3.70E-06	3.31E+00	3.00E+01	1.31E+02
Pyridine	--	--	--	--	--	--	4.00E+00	1.75E+01
Ronnel	--	--	--	--	--	--	2.00E+02	8.76E+02
Styrene	--	--	1.00E+03	4.38E+03	--	--	9.00E+02	3.94E+03
Sulfur Trioxide	--	--	1.00E+00	4.38E+00	--	--	1.00E+00	4.38E+00
Terbufos	--	--	--	--	--	--	1.00E-01	4.38E-01
Tetrachlorobenzene, 1,2,4,5-	--	--	--	--	--	--	1.20E+00	5.26E+00
Tetrachloroethane, 1,1,1,2-	7.40E-06	1.66E+00	--	--	7.40E-06	1.66E+00	1.20E+02	5.26E+02
Tetrachloroethane, 1,1,2,2-	5.80E-05	2.11E-01	--	--	5.80E-05	2.11E-01	8.00E+01	3.50E+02
Tetrachloroethylene	2.60E-07	4.72E+01	4.00E+01	1.75E+02	5.90E-06	2.08E+00	3.50E+01	1.53E+02
Tetrachlorotoluene, p- alpha, alpha, alpha-	--	--	--	--	5.00E-03	2.45E-03	--	--
Tetrafluoroethane, 1,1,1,2-	--	--	8.00E+04	3.50E+05	--	--	8.00E+04	3.50E+05
Thallium Acetate	--	--	--	--	--	--	2.40E-02	1.05E-01
Titanium Tetrachloride	--	--	1.00E-01	4.38E-01	--	--	1.00E-01	4.38E-01
Toluene	--	--	5.00E+03	2.19E+04	--	--	3.00E+02	1.31E+03

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Total Petroleum Hydrocarbons (Aliphatic High)	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (Aliphatic Low)	--	--	6.00E+02	2.63E+03	--	--	6.00E+02	2.63E+03
Total Petroleum Hydrocarbons (Aliphatic Medium)	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Total Petroleum Hydrocarbons (Aromatic Low)	--	--	3.00E+01	1.31E+02	--	--	3.00E+01	1.31E+02
Total Petroleum Hydrocarbons (Aromatic Medium)	--	--	3.00E+00	1.31E+01	--	--	3.00E+00	1.31E+01
Tri-n-butyltin	--	--	--	--	--	--	1.20E+00	5.26E+00
Triallate	--	--	--	--	--	--	5.20E+01	2.28E+02
Tribromobenzene, 1,2,4-	--	--	--	--	--	--	2.00E+01	8.76E+01
Trichloro-1,2,2-trifluoroethane, 1,1,2-	--	--	3.00E+04	1.31E+05	--	--	3.00E+04	1.31E+05
Trichlorobenzene, 1,2,3-	--	--	--	--	--	--	3.20E+00	1.40E+01
Trichlorobenzene, 1,2,4-	--	--	2.00E+00	8.76E+00	7.25E-06	1.69E+00	2.00E+00	8.76E+00
Trichloroethane, 1,1,1-	--	--	5.00E+03	2.19E+04	--	--	1.00E+03	4.38E+03
Trichloroethane, 1,1,2-	1.60E-05	7.67E-01	2.00E-01	8.76E-01	1.60E-05	7.67E-01	2.00E-01	8.76E-01
Trichloroethylene	4.10E-06	2.99E+00	2.00E+00	8.76E+00	4.10E-06	2.99E+00	2.00E+00	8.76E+00
Trichlorofluoromethane	--	--	7.00E+02	3.07E+03	--	--	7.00E+02	3.07E+03
Trichloropropane, 1,1,2-	--	--	--	--	--	--	2.00E+01	8.76E+01
Trichloropropane, 1,2,3-	--	--	3.00E-01	1.31E+00	7.50E-03	1.64E-03	3.00E-01	1.31E+00
Trichloropropene, 1,2,3-	--	--	3.00E-01	1.31E+00	--	--	3.00E-01	1.31E+00
Triethylamine	--	--	7.00E+00	3.07E+01	--	--	7.00E+00	3.07E+01
Trifluralin	--	--	--	--	1.93E-06	6.37E+00	3.00E+01	1.31E+02
Trimethylbenzene, 1,2,3-	--	--	5.00E+00	2.19E+01	--	--	5.00E+00	2.19E+01
Trimethylbenzene, 1,2,4-	--	--	7.00E+00	3.07E+01	--	--	7.00E+00	3.07E+01
Trimethylbenzene, 1,3,5-	--	--	--	--	--	--	4.00E+01	1.75E+02
Vernolate	--	--	--	--	--	--	4.00E+00	1.75E+01
Vinyl Acetate	--	--	2.00E+02	8.76E+02	--	--	2.00E+02	8.76E+02
Vinyl Bromide	3.20E-05	3.83E-01	3.00E+00	1.31E+01	3.20E-05	3.83E-01	3.00E+00	1.31E+01
Vinyl Chloride	4.40E-06	2.79E+00	1.00E+02	4.38E+02	7.80E-05	1.57E-01	1.00E+02	4.38E+02
Xylene, P-	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Xylene, m-	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Xylene, o-	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Xylenes	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02

Table C-3. USEPA RSLs and DTSC-SLs for Inhalation of Commercial/Industrial Air

Definition	Variable	USEPA Value	DTSC Value	
Averaging Time, carcinogens	AT_c	70	70	yrs
Averaging Time, noncarcinogens, worker	$AT_{nc,w}$	25	25	yrs
COPC Concentration in indoor air	$C_{indoor\ air}$	chemical-specific		µg/m^3
Exposure Duration, worker	ED_w	25	25	yrs
Exposure Frequency, worker	EF_w	250	250	days/yr
Exposure Time, worker	ET_w	8	8	hours/day
Inhalation Unit-Risk Factor	IUR	chemical-specific		(µg/m^3)$^{-1}$
Inhalation Reference Concentration	RfC	chemical-specific		µg/m^3
Regional Screening Level	RSL	derived herein		µg/m^3
Target Hazard Quotient	THQ	1	1	dimensionless
Target Risk	TR	1.0E-06	1.0E-06	dimensionless

Risk and Hazard Equations

Cancer Risk:

$$RSL = \frac{TR \times AT_c \times 365\frac{day}{year} \times 24\frac{hour}{day}}{IUR \times ED_w \times EF_w \times ET_w}$$

Noncancer Hazard:

$$RSL = \frac{THQ \times AT_{nc,w} \times 365\frac{day}{year} \times 24\frac{hour}{day}}{\frac{1}{RfC} \times ED_w \times EF_w \times ET_w}$$

	USEPA RSL for Commercial/Industrial Air				DTSC-SL for Commercial/Industrial Air			
Analyte	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)	**IUR** (µg/m^3)$^{-1}$	**Cancer** (µg/m^3)	**RfC** (µg/m^3)	**Noncancer** (µg/m^3)
Additional Analytes								
Chloropropane, 2-	--	--	1.00E+02	4.38E+02	--	--	1.00E+02	4.38E+02
Dichlorobenzene, 1,3-	--	--	--	--	--	--	1.20E+02	5.26E+02
Ethyl tert-butyl ether	--	--	--	--	--	--	--	--
Methylcyclohexane	--	--	--	--	--	--	6.00E+03	2.63E+04
tert-Amyl methyl ether	--	--	--	--	--	--	--	--
tert-Butyl alcohol	--	--	--	--	--	--	--	--
Dichlorobiphenyls	--	--	--	--	--	--	--	--
Monochlorobiphenyls	--	--	--	--	--	--	--	--