

Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart D. ENVIRONMENTAL HEALTH AND SAFETY
ARTICLE VI. GENERAL HEALTH AND SAFETY
CHAPTER 250. ADMINISTRATION OF LAND RECYCLING PROGRAM
Subchapter C. STATEWIDE HEALTH STANDARDS

§ 250.304. MSCs for groundwater.

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(c) The MSCs for regulated substances contained in groundwater in aquifers used or currently planned to be used for drinking water or for agricultural purposes are the MCLs as established by the Department or the EPA in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements). For regulated substances where no MCL has been established, the MSCs are the Lifetime Health Advisory Levels (HAL) set forth in Drinking Water Standards and Health Advisories (DWSHA), EPA Office of Water Publication No. EPA 822-F-18-001 (March 2018 or as revised), except for substances designated in the DWSHA with cancer descriptor (L) “Likely to be carcinogenic to humans” or (L/N) “Likely to be carcinogenic above a specific dose but not likely to be carcinogenic below that dose because a key event in tumor formation does not occur below that dose.” [New] **MSCs for regulated substances with HALs designated in the DWSHA with L or L/N cancer descriptors will be calculated by the Department and become effective upon publication in the *Pennsylvania Bulletin*. All other new or revised MCLs or HALs [promulgated by the Department or] published in the *Federal Register* by the EPA or in the *Pennsylvania Bulletin* by the Environmental Quality Board shall become effective immediately [for any demonstration of attainment completed after the date the new or revised MCLs or HALs become effective.] and shall supersede any MSCs previously promulgated for those regulated substances. For the purposes of this subsection, MCLs and HALs refer exclusively to final versions of promulgated MCLs and published versions of final HALs.**

- (1) For regulated substances where neither an MCL nor a lifetime HAL has been established and for substances designated in the DWSHA with cancer descriptor (L) or (L/N), the MSCs are the lowest concentration calculated using the appropriate residential and nonresidential exposure assumptions and the equations in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values).
- (2) If the Lifetime HAL for a substance designated in the DWSHA with cancer descriptor (L) or (L/N) is less than the MSC calculated under paragraph (1), then the Lifetime HAL shall be the MSC.
- (3) **IN ADDITION TO MEETING THE INDIVIDUAL MSC, IF MORE THAN ONE OF THE PFAS INCLUDED IN THE MCL HAZARD INDEX (HI) CALCULATION ARE DETECTED AT ANY CONCENTRATION IN A SAMPLE, AN HI MUST BE CALCULATED USING THE EQUATION IN § 250.707(b)(2)(iii).**

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(g) The references referred to in subsection (f) are:

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(24) OECD (Organisation for Economic Co-operation and Development). 2002. *Hazard Assessment of Perfluorooctane Sulfonate (PFOS) and its Salts*. ENV/JM/RD (2002) 17/FINAL. Report of the Environment Directorate, Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, Co-operation on Existing Chemicals, Paris, November 21, 2002.

(25) Kim, Minhee, et al. 2015. *Selecting reliable physicochemical properties of perfluoroalkyl and polyfluoroalkyl substances (PFASs) based on molecular descriptors*. Environ. Pollution 196: 462—472.

§ 250.305. MSCs for soil.

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(b) The MSCs for regulated substances in soil are presented in Appendix A, Tables 3 and 4. The methodology for calculating MSCs in soil is detailed in subsections (c)—(e) and the MSCs are further limited to not exceed the physical capacity of the soil to contain a regulated substance. This physical limitation is based on an assumed porosity of 0.35, an assumed dry bulk density of soil of 1.8 kilograms per liter and an assumed density of a regulated substance of 1.0 kilograms per liter. This is calculated according to the equation in paragraph (1). For regulated substances which are organics and liquids at standard temperature and pressure (STP) as identified in Appendix A, Table 5 (Chemical Properties), the physical limitation is further limited based on residual saturation with the additional assumption of a residual saturation ratio of substance volume to soil volume of 0.051, as calculated in Equation (2).

$$(1) \left[C_{PL} = \frac{\rho_{RS}n}{\rho_B} \right] C_{PL} = \frac{\rho_{RS} \times n}{\rho_B}$$

$$(2) [MSC = Sr * \frac{\rho_{RS}n}{\rho_B} * 1,000,000 \text{ mg/kg} = 10,000 \text{ mg/kg}]$$

$$MSC = Sr \times \frac{\rho_{RS} \times n}{\rho_B} \times 1,000,000 \text{ mg/kg} = 10,000 \text{ mg/kg}$$

where:

C_{PL} = **physical capacity of the soil**

ρ_{RS} = density of the regulated substance = 1.0 kg/L

[n] n = porosity of the soil = 0.35

ρ_B = dry bulk density of the soil = 1.8 kg/L

[Sr] Sr = residual saturation ratio (substance vol./soil vol.) = 0.051

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§ 250.306. Ingestion numeric values.

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(d) The default exposure assumptions used to calculate the ingestion numeric values are as follows:

Term		Residential		Nonresidential (Onsite Worker)
Systemic¹	Carcinogens^{2,6}			
THQ	Target Hazard Quotient	1	N/A	1
RfD _o	Oral Reference Dose (mg/kg-day)	Chemical-specific	N/A	Chemical-specific
BW	Body Weight (kg)		N/A	
	Soil	15		80
	Groundwater	80		80
AT _{nc}	Averaging Time for systemic toxicants (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
Abs	Absorption (unitless) ³	1	1	1
EF	Exposure Frequency (d/yr)			
	Soil	250	250	180
	Groundwater	350	350	250
ED	Exposure Duration (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
IngR	Ingestion Rate			
	Soil (mg/day)	100	N/A	50
	GW (L/day)	2.4	N/A	1.2
CF	Conversion Factor			
	Soil (kg/mg)	1×10^{-6}	1×10^{-6}	1×10^{-6}
	GW (unitless)	1	1	1
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
CSF _o	Oral Cancer Slope Factor (mg/kg-day) ⁻¹	N/A	Chemical-specific	Chemical-specific
AT _c	Averaging Time for carcinogens (yr)	N/A	70	70
IFadj ⁴	Ingestion Factor	N/A		
	Soil (mg-yr/kg-day)		55	15.6
	GW (L-yr/kg day)		[1.2] 1.1	0.38
AIFadj ⁵	Combined Age-Dependent Adjustment Factor and Ingestion Factor	N/A		N/A
	Soil (mg-yr/kg-day)		241	
	GW (L-yr/kg-day)		3.45	
CSFo _k	TCE oral cancer slope factor for kidney cancer (mg/kg/day) ⁻¹		9.3×10^{-3}	
CSFo _l	TCE oral cancer slope factor for non-Hodgkin lymphoma and liver cancer (mg/kg/day) ⁻¹		3.7×10^{-2}	

Notes:

¹ Residential exposure to noncarcinogens is based on childhood (ages 1—6) exposure for soil, and adult exposure for groundwater, consistent with USEPA (1991).

² Residential exposure to carcinogens is based on combined childhood and adult exposure.

³ The oral absorption factor takes into account absorption and bioavailability. In cases where the oral RfD or CSF is based on administered oral dose, the absorption factor would be limited to bioavailability. The default value is 1.

⁴ The Ingestion Factor for the residential scenario is calculated using the equation $If_{adj} = ED_c \times IR_c / BW_c + ED_a \times IR_a / BW_a$, where $ED_c = 6$ yr, $IR_c = 100$ mg/day for soils and 1 L/day for groundwater, $BW_c = 15$ kg, $ED_a = 24$ yr, $IR_a = 50$ mg/day for soils and 2.4 L/day for groundwater, and $BW_a = 80$ kg. The ingestion factor for the nonresidential scenario is calculated using the equation $If_{adj} = ED \times IR / BW$, where $ED = 25$ yr, $IR = 50$ mg/day for soils and 1.2 L/day for groundwater, and $BW = 80$ kg.

⁵ The Combined Age-Dependent Adjustment Factor and Ingestion Factor (AIF_{adj}) for the residential scenario is calculated using the equation $AIF_{adj} = [(ADAF_{0t;2} \times ED_{0t;2}) + (ADAF_{2-6} \times ED_{2-6})] \times IR_c / BW_c + [(ADAF_{0t;6-16} \times ED_{0t;6-16}) + (ADAF_{0t;16} \times ED_{0t;16})] \times IR_a / BW_a$, where $ADAF_{0t;2} = 10$, $ED_{0t;2} = 2$ yr, $ADAF_{2-6} = 3$, $ED_{2-6} = 4$ yr, $IR_c = 100$ mg/day for soils and 1 L/day for groundwater, $BW_c = 15$ kg, $ADAF_{0t;6-16} = 3$, $ED_{0t;6-16} = 10$ yr, $ADAF_{0t;16} = 1$, $ED_{0t;16} = 14$ yr, $IR_a = 50$ mg/day for soils and 2.4 L/day for groundwater, and $BW_a = 80$ kg.

⁶ For the equation to calculate the vinyl chloride residential MSC based on the carcinogenic effect, $IR_c = 100$ mg/day for soils and 1 L/day for groundwater, $BW_c = 15$ kg.

(e) The residential ingestion numeric value for lead in soil was developed using the **[Uptake Biokinetic (UBK) Model for Lead (version 0.4)] Integrated Exposure Uptake Biokinetic Model for Lead in Children, Windows® version (IEUBKwin v1.1 build 11) 32-bit version** developed by the EPA (U.S. Environmental Protection Agency[. (1990) **Uptake Biokinetic (UBK) Model for Lead (version 0.4). U.S. EPA/ECAO. August 1990 February 2010**), in lieu of the algorithms presented in subsections (a) and (b). Default input values are identified in Appendix A, Table 7. **[Because the UBK model is applicable only to children, the nonresidential ingestion numeric value was calculated according to the method developed by the Society for Environmental Geochemistry and Health (Wixson, B. G. (1991)). The Society for Environmental Geochemistry and Health (SEGH) Task Force Approach to the Assessment of Lead in Soil. Trace Substances in Environmental Health. (11-20), using the following equations:**

$$S = \frac{1000 \left[\left(\frac{T}{G^n} \right) - B \right]}{\delta}$$

Because the IEUBK model is applicable only to children, the nonresidential ingestion numeric value was calculated using the EPA's Adult Lead Methodology in accordance with the guidance, exposure factors, equations and spreadsheets provided in EPA's Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil (EPA-540-R-03-001, OSWER Dir #9285.7-54, January 2003), OLEM Directive 9285.6-56 "Update to the Adult

Lead Methodology's Default Baseline Blood Lead Concentration and Geometric Standard Deviation Parameters” (May 2017) and the associated June 14, 2017, version of **the Calculations of Preliminary Remediation Goals (PRGs) for Soil in Nonresidential Areas U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee spreadsheets**. Table 7 identifies each of the variables [in this equation] **used to calculate the nonresidential ingestion numeric value for lead**.

Subchapter D. SITE-SPECIFIC STANDARD

§ 250.404. Pathway identification and elimination.

(a) The person shall use Department or Department-approved EPA or ASTM guidance to identify any potential current and future exposure pathways for both human receptors and **[environmental] ecological** receptors identified in § 250.402 (relating to human health and environmental protection goals).

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Subchapter F. EXPOSURE AND RISK DETERMINATIONS

§ 250.605. Sources of toxicity information.

(a) For site-specific standards, the person shall use appropriate reference doses, reference concentrations, cancer slope factors and unit risk factors identified in Subchapter C (relating to Statewide health standards), unless the person can demonstrate that published data, available from one of the following sources, provides more current reference doses, reference concentrations, cancer slope factors or unit risk factors:

(1) Integrated Risk Information System (IRIS). **Cancer slope factors and inhalation unit risk factors for carcinogenic polycyclic aromatic hydrocarbons are derived using relative potency factors contained in United States Environmental Protection Agency July 1993 Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons (EPA/600/R-93/089)**.

(2) United States Environmental Protection Agency, National Center for Environmental Assessment (NCEA) Provisional Peer-Reviewed Toxicity Values (PPRTV).

(3) Other sources:

(i) Health Effects Assessment Summary Tables (HEAST).

(ii) Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles.

(iii) California EPA, California Cancer Potency Factors and Chronic Reference Exposure Levels.

(iv) EPA criteria documents, including drinking water criteria documents, drinking water health advisory summaries, ambient water quality criteria documents and air quality criteria documents.

(v) EPA Human Health Benchmarks for Pesticides (HHBP).

(vi) EPA PPRTV Appendix.

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§ 250.606. Development of site-specific standards.

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(d) The following factors shall be considered in the development of the risk assessment and in the development of site-specific standards:

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(3) The person shall consider current and probable future exposure scenarios, such as:

(i) Human ingestion of soil when direct contact exposure to the soil may reasonably occur.

(ii) Exposure to groundwater by ingestion with respect to leaching of regulated substances from soils to groundwater.

(iii) Human inhalation of regulated substances from volatilization and migration of these substances into **[below grade]** occupied space.

(iv) Human ingestion of regulated substances in surface water or other site-specific surface water exposure pathways with respect to regulated substances migration from soil to surface water.

(v) Human inhalation of regulated substances in air or other site-specific air exposure pathways with respect to the release of regulated substances from soil to air.

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Subchapter G. DEMONSTRATION OF ATTAINMENT

§ 250.703. General attainment requirements for soil.

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(b) The soil to which the attainment criteria are applied shall be determined by circumscribing with an irregular surface those concentrations detected during characterization which exceed the selected standard. Where this soil is to be removed from the site, the attainment demonstration applies to the base **and sidewalls** of the excavation defined by the limit of excavation.

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(d) For statistical methods under § 250.707(b)(1)(i) **and (iv)** (relating to statistical tests), the number of sample points required for each distinct area of contamination to demonstrate attainment shall be determined in the following way:

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§ 250.704. General attainment requirements for groundwater.

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(e) For statistical methods under § 250.707(b)(2)(ii), (iii), and (c), the minimum number of samples required for demonstrating attainment shall be as specified by the documentation of the chosen method.

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§ 250.707. Statistical tests.

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(b) The following statistical tests may be accepted by the Department to demonstrate attainment of the Statewide health standard. The statistical test for soil shall apply to each distinct area of contamination. The statistical test for groundwater will apply to each compliance monitoring well. Testing shall be performed individually for each regulated substance identified in the final report site investigation as being present at the site for which a person wants relief from liability under the act. The application of a statistical method must meet the criteria in subsection (d).

(1) For soil attainment determination at each distinct area of contamination, subparagraph [(i), (ii) or (iii)] **(i), (ii), (iii) or (iv)** shall be met in addition to the attainment requirements in § § 250.702 and 250.703 (relating to attainment requirements; and general attainment requirements for soil).

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(iii) For sites with a petroleum release where full site characterization, as defined in § 250.204(b) (relating to final report), has not been done in association with an excavation remediation, attainment of the Statewide health standard shall be demonstrated using the following procedure:

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(D) A vapor intrusion analysis is not necessary if the requirements of § 250.707(b)(1)(iii) are met in addition to the following:

(I) At least one soil sample is collected on the sidewall nearest an inhabited building within the appropriate proximity distance to a potential vapor intrusion source and there are not substantially higher field instrument readings elsewhere.

(II) Observations of obvious contamination and the use of appropriate field screening instruments verify that contamination has not contacted or penetrated the foundation of an inhabited building.

(III) Groundwater contamination has not been identified as a potential vapor intrusion concern.

(iv) For sites with a release of lead or lead compounds that has been remediated to attain an MSC for lead based on an ingestion numeric value calculated in accordance with the requirements of § 250.306(e) (relating to ingestion numeric values) and Appendix A, Table 7, the arithmetic average of all attainment samples, which shall be randomly collected in a single event from the site, shall be equal to or less than the applicable MSC.

(2) For groundwater attainment determination at each compliance monitoring well, subparagraph (i) or (ii) shall be met in addition to the attainment requirements in § 250.702 and § 250.704 (relating to general attainment requirements for groundwater).

(i) Seventy-five percent of all samples collected within each monitoring well over time shall be equal to or less than the Statewide health standard or the limit related to PQLs with no individual sample exceeding both of the following:

(A) Ten times the Statewide health standard on the property.

(B) Two times the Statewide health standard beyond the property boundary.

(ii) As applied in accordance with EPA approved methods on statistical analysis of environmental data, as identified in subsection (e), the 95% UCL level of the arithmetic mean shall be at or below the Statewide health standard.

(iii) FOR ATTAINMENT OF THE PFAS HAZARD INDEX (HI) MSC AS NOTED IN § 250.304(c)(3), THE DATA MUST MAINTAIN A ROLLING AVERAGE HI OF LESS THAN ONE FOR THE MOST RECENT FOUR QUARTERS OF SAMPLING DATA FOR THE PFAS DETECTED USING THE EQUATION:

$$HI = (C_{GEN-X}/MSC_{GEN-X})+(C_{PFBS}/MSC_{PFBS})+(C_{PFHXS}/MSC_{PFHXS})+(C_{PFNA}/MSC_{PFNA})$$

WHERE:

C_{GEN-X} = GEN-X CONCENTRATION

MSC_{GEN-X} = GEN-X MSC

C_{PFBS} = PFBS CONCENTRATION

MSC_{PFBS} = PFBS MSC

C_{PFHXS} = PFHxS CONCENTRATION

MSC_{PFHXS} = PFHxS MSC

C_{PFNA} = PFNA CONCENTRATION

MSC_{PFNA} = PFNA MSC

THE COMPOUNDS TO BE INCLUDED ARE NOTED WITH AN “HI” IN APPENDIX A, TABLE 1. THE MSC VALUES TO BE USED IN THIS CALCULATION ARE THE USED AQUIFER RESIDENTIAL VALUES.

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(d) Except for the statistical methods identified in [subsections (a)(1)(i) and (b)(1)(i) and (2)(i)] subsection (a)(1)(i), subsection (b)(1)(i), subsection (b)(1)(iv), and subsection (b)(2)(i), AND SUBSECTION (b)(2)(iii), a demonstration of attainment of one or a combination of remediation standards shall comply with the following:

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Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR	R	NR
ACENAPHTHENE	83-32-9	2,100 G	3,800 S	3,800 S	3,800 S	3,800 S	3,800 S
ACENAPHTHYLENE	208-96-8	2,100 G	5,800 G	16,000 S	16,000 S	16,000 S	16,000 S
ACEPHATE	30560-19-1	42 G	120 G	4,200 G	12,000 G	42 G	120 G
ACETALDEHYDE	75-07-0	19 N	79 N	1,900 N	7,900 N	19 N	79 N
ACETONE	67-64-1	31,000 G	88,000 G	3,100,000 G	8,800,000 G	310,000 G	880,000 G
ACETONITRILE	75-05-8	130 N	530 N	13,000 N	53,000 N	1,300 N	5,300 N
ACETOPHENONE	98-86-2	3,500 G	9,700 G	350,000 G	970,000 G	3,500 G	9,700 G
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.17 G	0.72 G	17 G	72 G	170 G	720 G
ACROLEIN	107-02-8	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
ACRYLAMIDE	79-06-1	0.19 N	2.5 N	19 N	250 N	0.19 N	2.5 N
ACRYLIC ACID	79-10-7	[2.1] 0.42 N	[8.8] 1.8 N	[210] 42 N	[880] 180 N	[210] 42 N	[880] 180 N
ACRYLONITRILE	107-13-1	0.72 N	3.7 N	72 N	370 N	72 N	370 N
ALACHLOR	15972-60-8	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB	116-06-3	3 M	3 M	300 M	300 M	3,000 M	3,000 M
ALDICARB SULFONE	1646-88-4	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB SULFOXIDE	1646-87-3	4 M	4 M	400 M	400 M	4 M	4 M
ALDRIN	309-00-2	0.038 G	0.16 G	3.8 G	16 G	20 S	20 S
ALLYL ALCOHOL	107-18-6	0.21 N	0.88 N	21 N	88 N	21 N	88 N
AMETRYN	834-12-8	60 H	60 H	6,000 H	6,000 H	60 H	60 H
AMINOBIHENYL, 4-	92-67-1	0.031 G	0.13 G	3.1 G	13 G	31 G	130 G
AMITROLE	61-82-5	0.69 G	2.9 G	69 G	290 G	690 G	2,900 G
AMMONIA	7664-41-7	30,000 H	30,000 H	3,000,000 H	3,000,000 H	30,000 H	30,000 H
AMMONIUM SULFAMATE	7773-06-0	2,000 H	2,000 H	200,000 H	200,000 H	2,000 H	2,000 H
ANILINE	62-53-3	2.1 N	8.8 N	210 N	880 N	2.1 N	8.8 N
ANTHRACENE	120-12-7	66 S	66 S	66 S	66 S	66 S	66 S
ATRAZINE	1912-24-9	3 M	3 M	300 M	300 M	3 M	3 M
AZINPHOS-METHYL (GUTHION)	86-50-0	52 G	150 G	5,200 G	15,000 G	52 G	150 G
BAYGON (PROPOXUR)	114-26-1	3 H	3 H	300 H	300 H	3,000 H	3,000 H
BENOMYL	17804-35-2	270 G	1,100 G	2,000 S	2,000 S	270 G	1,100 G
BENTAZON	25057-89-0	200 H	200 H	20,000 H	20,000 H	200 H	200 H

All concentrations in µg/L
 R = Residential
 NR = Non-Residential
 M = Maximum Contaminant Level
 H = Lifetime health advisory level
 G = Ingestion
 N = Inhalation
 S = Aqueous solubility cap

THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.

HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

[PFOA and PFOS values listed are for individual or total combined.] HI - INCLUDE IN HI CALCULATION IN § 250.707(b)(2)(iii) FOR PFAS

Appendix A

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Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
BENZENE	71-43-2	5 M	5 M	500 M	500 M	500 M	500 M
BENZIDINE	92-87-5	0.00092 G	0.012 G	0.092 G	1.2 G	0.92 G	12 G
BENZO[A]ANTHRACENE	56-55-3	[0.3] G 2.1	[3.9] [G] 11 S	11 S	11 S	11 S	11 S
BENZO[A]PYRENE	50-32-8	0.2 M	0.2 M	3.8 S	3.8 S	3.8 S	3.8 S
BENZO[B]FLUORANTHENE	205-99-2	[0.18] [G] 1.2 S	1.2 S	1.2 S	1.2 S	1.2 S	1.2 S
BENZO[GHI]PERYLENE	191-24-2	0.26 S	0.26 S	0.26 S	0.26 S	0.26 S	0.26 S
BENZO[K]FLUORANTHENE	207-08-9	[0.18] [G] 0.55 S	0.55 S	0.55 S	0.55 S	0.55 S	0.55 S
BENZOIC ACID	65-85-0	140,000 G	390,000 G	2,700,00 S 0	2,700,000 S	140,000 G	390,000 G
BENZOTRICHLORIDE	98-07-7	0.05 G	0.21 G	5 G	21 G	5 G	21 G
BENZYL ALCOHOL	100-51-6	3,500 G	9,700 G	350,000 G	970,000 G	3,500 G	9,700 G
BENZYL CHLORIDE	100-44-7	1 N	5.1 N	100 N	510 N	100 N	510 N
BETA PROPIOLACTONE	57-57-8	0.012 N	0.063 N	1.2 N	6.3 N	0.12 N	0.63 N
BHC, ALPHA-	319-84-6	0.1 G	0.43 G	10 G	43 G	100 G	430 G
BHC, BETA-	319-85-7	0.36 G	1.5 G	36 G	100 S	100 S	100 S
BHC, GAMMA (LINDANE)	58-89-9	0.2 M	0.2 M	20 M	20 M	200 M	200 M
BIPHENYL, 1,1-	92-52-4	0.84 N	3.5 N	84 N	350 N	84 N	350 N
BIS(2-CHLOROETHOXY)METHANE	111-91-1	100 G	290 G	10,000 G	29,000 G	100 G	290 G
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.15 N	0.76 N	15 N	76 N	15 N	76 N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	300 H	300 H	30,000 H	30,000 H	30,000 H	30,000 H
BIS(CHLOROMETHYL)ETHER	542-88-1	0.00079 N	0.004 N	0.079 N	0.4 N	0.079 N	0.4 N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	6 M	6 M	290 S	290 S	290 S	290 S
BISPHENOL A	80-05-7	1,700 G	4,900 G	120,000 S	120,000 S	120,000 S	120,000 S
BROMACIL	314-40-9	70 H	70 H	7,000 H	7,000 H	70 H	70 H
BROMOBENZENE	108-86-1	[0.06] 60 H	[0.06] 60 H	[6] 6,000 H	[6] 6,000 H	[0.06] 60 H	[0.06] 60 H
BROMOCHLOROMETHANE	74-97-5	90 H	90 H	9,000 H	9,000 H	90 H	90 H
BROMODICHLOROMETHANE (THM)	75-27-4	80 M	80 M	8,000 M	8,000 M	80 M	80 M
BROMOMETHANE	74-83-9	10 H	10 H	1,000 H	1,000 H	1,000 H	1,000 H
BROMOXYNIL	1689-84-5	6.3 G	26 G	630 G	2,600 G	6.3 G	26 G

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		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
BROMOXYNIL OCTANOATE	1689-99-2	6.3 G	26 G	80 S	80 S	80 S	80 S
BUTADIENE, 1,3-	106-99-0	1.1 G	4.5 G	110 G	450 G	110 G	450 G
BUTYL ALCOHOL, N-	71-36-3	3,500 G	9,700 G	350,000 G	970,000 G	35,000 G	97,000 G
BUTYLATE	2008-41-5	400 H	400 H	40,000 H	40,000 H	400 H	400 H
BUTYLBENZENE, N-	104-51-8	1,700 G	4,900 G	15,000 S	15,000 S	1,700 G	4,900 G
BUTYLBENZENE, SEC-	135-98-8	3,500 G	9,700 G	17,000 S	17,000 S	3,500 G	9,700 G
BUTYLBENZENE, TERT-	98-06-6	3,500 G	9,700 G	30,000 S	30,000 S	3,500 G	9,700 G
BUTYLBENZYL PHTHALATE	85-68-7	340 G	1,400 G	2,700 S	2,700 S	2,700 S	2,700 S
CAPTAN	133-06-2	280 G	500 S	500 S	500 S	500 S	500 S
CARBARYL	63-25-2	3,500 G	9,700 G	120,000 S	120,000 S	120,000 S	120,000 S
[CARBAZOLE]	[86-74-8]	[33] [G]	[140] [G]	[1,200] [S]	[1,200] [S]	[33] [G]	[140] [G]
CARBOFURAN	1563-66-2	40 M	40 M	4,000 M	4,000 M	40 M	40 M
CARBON DISULFIDE	75-15-0	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N
CARBON TETRACHLORIDE	56-23-5	5 M	5 M	500 M	500 M	50 M	50 M
CARBOXIN	5234-68-4	700 H	700 H	70,000 H	70,000 H	700 H	700 H
CHLORAMBEN	133-90-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORDANE	57-74-9	2 M	2 M	56 S	56 S	56 S	56 S
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	110,000 N	440,000 N	1,400,000 S	1,400,000 S	110,000 N	440,000 N
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	2.1 N	8.8 N	210 N	880 N	210 N	880 N
CHLOROACETALDEHYDE	107-20-0	2.4 G	10 G	240 G	1,000 G	2.4 G	10 G
CHLOROANILINE, P-	106-47-8	3.3 G	14 G	330 G	1,400 G	3.3 G	14 G
CHLOROBENZENE	108-90-7	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
CHLOROBENZILATE	510-15-6	5.9 G	25 G	590 G	2,500 G	5,900 G	13,000 S
CHLOROBUTANE, 1-	109-69-3	1,400 G	3,900 G	140,000 G	390,000 G	1,400 G	3,900 G
CHLORODIBROMOMETHANE (THM)	124-48-1	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
CHLORODIFLUOROMETHANE	75-45-6	110,000 N	440,000 N	2,900,000 S	2,900,000 S	110,000 N	440,000 N
CHLOROETHANE	75-00-3	[21,000] N 8,400	[88,000] N 35,000	[2,100,000] N 840,000	[5,700,000] [S] 3,500,000 N	[2,100,000] N 840,000	[5,700,000] [S] 3,500,000 N
CHLOROFORM (THM)	67-66-3	80 M	80 M	8,000 M	8,000 M	800 M	800 M
CHLORONAPHTHALENE, 2-	91-58-7	2,800 G	7,800 G	12,000 S	12,000 S	2,800 G	7,800 G
CHLORONITROBENZENE, P-	100-00-5	4.2 N	18 N	420 N	1,800 N	4.2 N	18 N
CHLOROPHENOL, 2-	95-57-8	40 H	40 H	4,000 H	4,000 H	40 H	40 H

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Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
CHLOROPRENE	126-99-8	0.16 N	0.83 N	16 N	83 N	16 N	83 N
[CHLOROPROPANE, 2-]	[75-29-6]	[210] [N]	[880] [N]	[21,000] [N]	[88,000] [N]	[210] [N]	[880] [N]
CHLOROTHALONIL	1897-45-6	38 G	160 G	600 S	600 S	38 G	160 G
CHLOROTOLUENE, O-	95-49-8	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLOROTOLUENE, P-	106-43-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORPYRIFOS	2921-88-2	2 H	2 H	200 H	200 H	2 H	2 H
CHLORSULFURON	64902-72-3	[690] G 1,700	[1,900] G 4,900	[69,000] G 170,000	190,000 [G] S	[690] G 1,700	[1,900] G 4,900
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	70 H	70 H	500 S	500 S	500 S	500 S
CHRYSENE	218-01-9	[1.8] [G] 1.9 S	1.9 S	1.9 S	1.9 S	1.9 S	1.9 S
CRESOL(S)	1319-77-3	1,300 N	5,300 N	130,000 N	530,000 N	130,000 N	530,000 N
CRESOL, DINITRO-O-,4,6-	534-52-1	2.8 G	7.8 G	280 G	780 G	280 G	780 G
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	1,700 G	4,900 G	170,000 G	490,000 G	170,000 G	490,000 G
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	1,700 G	4,900 G	170,000 G	490,000 G	1,700,000 G	2,500,000 S
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	[170] G 690	[490] G 1,900	[17,000] G 69,000	[49,000] G 190,000	[170,000] G 690,000	[490,000] G 1,900,000
CRESOL, P-CHLORO-M-	59-50-7	3,500 G	9,700 G	350,000 G	970,000 G	3,500 G	9,700 G
CROTONALDEHYDE	4170-30-3	[0.34] G 35	[1.4] G 97	[34] G 3,500	[140] G 9,700	[34] G 3,500	[140] G 9,700
CROTONALDEHYDE, TRANS-	123-73-9	[0.34] G 35	[1.4] G 97	[34] G 3,500	[140] G 9,700	[34] G 3,500	[140] G 9,700
CUMENE (ISOPROPYL BENZENE)	98-82-8	840 N	3,500 N	50,000 S	50,000 S	50,000 S	50,000 S
CYANAZINE	21725-46-2	1 H	1 H	100 H	100 H	1 H	1 H
CYCLOHEXANE	110-82-7	13,000 N	53,000 N	55,000 S	55,000 S	13,000 N	53,000 N
CYCLOHEXANONE	108-94-1	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N
CYFLUTHRIN	68359-37-5	1 S	1 S	1 S	1 S	1 S	1 S
CYROMAZINE	66215-27-8	17,000 G	49,000 G	1,700,000 G	4,900,000 G	17,000 G	49,000 G
DDD, 4,4'-	72-54-8	2.7 G	11 G	160 S	160 S	160 S	160 S
DDE, 4,4'-	72-55-9	1.9 G	8 G	40 S	40 S	40 S	40 S
DDT, 4,4'-	50-29-3	1.9 G	5.5 S	5.5 S	5.5 S	5.5 S	5.5 S
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	400 M	400 M	40,000 M	40,000 M	200,000 S	200,000 S

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Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
DIALATE	2303-16-4	11 G	45 G	1,100 G	4,500 G	11,000 G	40,000 S
DIAMINOTOLUENE, 2,4-	95-80-7	0.16 G	0.68 G	16 G	68 G	160 G	680 G
DIAZINON	333-41-5	1 H	1 H	100 H	100 H	1 H	1 H
DIBENZO[A,H]ANTHRACENE	53-70-3	[0.052] 0.21 G	0.6 S	0.6 S	0.6 S	0.6 S	0.6 S
DIBENZOFURAN	132-64-9	35 G	97 G	3,500 G	4,500 S	3,500 G	4,500 S
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.2 M	0.2 M	20 M	20 M	20 M	20 M
DIBROMOBENZENE, 1,4-	106-37-6	350 G	970 G	20,000 S	20,000 S	350 G	970 G
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.05 M	0.05 M	5 M	5 M	5 M	5 M
DIBROMOMETHANE	74-95-3	8.4 N	35 N	840 N	3,500 N	840 N	3,500 N
DIBUTYL PHTHALATE, N-	84-74-2	3,500 G	9,700 G	350,000 G	400,000 S	400,000 S	400,000 S
DICAMBA	1918-00-9	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
DICHLOROACETIC ACID (HAA)	79-43-6	60 M	60 M	6,000 M	6,000 M	60 M	60 M
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLOROBENZENE, 1,2-	95-50-1	600 M	600 M	60,000 M	60,000 M	60,000 M	60,000 M
DICHLOROBENZENE, 1,3-	541-73-1	600 H	600 H	60,000 H	60,000 H	60,000 H	60,000 H
DICHLOROBENZENE, P-	106-46-7	75 M	75 M	7,500 M	7,500 M	7,500 M	7,500 M
DICHLOROBENZIDINE, 3,3'-	91-94-1	1.4 G	6 G	140 G	600 G	1,400 G	3,100 S
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
DICHLOROETHANE, 1,1-	75-34-3	31 N	160 N	3,100 N	16,000 N	310 N	1,600 N
DICHLOROETHANE, 1,2-	107-06-2	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROETHYLENE, 1,1-	75-35-4	7 M	7 M	700 M	700 M	70 M	70 M
DICHLOROETHYLENE, CIS-1,2-	156-59-2	70 M	70 M	7,000 M	7,000 M	700 M	700 M
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	100 M	100 M	10,000 M	10,000 M	1,000 M	1,000 M
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	5 M	5 M	500 M	500 M	500 M	500 M
DICHLOROPHENOL, 2,4-	120-83-2	20 H	20 H	2,000 H	2,000 H	20,000 H	20,000 H
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	70 M	70 M	7,000 M	7,000 M	70,000 M	70,000 M
DICHLOROPROPANE, 1,2-	78-87-5	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROPROPENE, 1,3-	542-75-6	6.5 G	27 G	650 G	2,700 G	650 G	2,700 G
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	200 M	200 M	20,000 M	20,000 M	20,000 M	20,000 M
DICHLORVOS	62-73-7	2.2 G	9.4 G	220 G	940 G	2.2 G	9.4 G

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Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
DICYCLOPENTADIENE	77-73-6	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
DIELDRIN	60-57-1	0.041 G	0.17 G	4.1 G	17 G	41 G	170 S
DIETHYL PHTHALATE	84-66-2	28,000 G	78,000 G	1,100,000 S	1,100,000 S	1,100,000 S	1,100,000 S
DIFLUBENZURON	35367-38-5	200 S	200 S	200 S	200 S	200 S	200 S
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	600 H	600 H	60,000 H	60,000 H	600 H	600 H
DIMETHOATE	60-51-5	76 G	210 G	7,600 G	21,000 G	76,000 G	210,000 G
DIMETHOXYBENZIDINE, 3,3-	119-90-4	0.41 G	1.7 G	41 G	170 G	410 G	1,700 G
DIMETHRIN	70-38-2	36 S	36 S	36 S	36 S	36 S	36 S
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	0.14 G	0.59 G	14 G	59 G	140 G	590 G
DIMETHYLANILINE, N,N-	121-69-7	24 G	100 G	2,400 G	10,000 G	2,400 G	10,000 G
DIMETHYLBENZIDINE, 3,3-	119-93-7	0.059 G	0.25 G	5.9 G	25 G	59 G	250 G
DIMETHYL METHYLPHOSPHONATE	756-79-6	100 H	100 H	10,000 H	10,000 H	100 H	100 H
DIMETHYLPHENOL, 2,4-	105-67-9	690 G	1,900 G	69,000 G	190,000 G	690,000 G	1,900,000 G
DINITROBENZENE, 1,3-	99-65-0	1 H	1 H	100 H	100 H	1,000 H	1,000 H
DINITROPHENOL, 2,4-	51-28-5	69 G	190 G	6,900 G	19,000 G	69,000 G	190,000 G
DINITROTOLUENE, 2,4-	121-14-2	2.1 G	8.8 G	210 G	880 G	2,100 G	8,800 G
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.43 G	1.8 G	43 G	180 G	430 G	1,800 G
DINOSEB	88-85-7	7 M	7 M	700 M	700 M	7,000 M	7,000 M
DIOXANE, 1,4-	123-91-1	6.5 G	27 G	650 G	2,700 G	65 G	270 G
DIPHENAMID	957-51-7	200 H	200 H	20,000 H	20,000 H	200 H	200 H
DIPHENYLAMINE	122-39-4	3,500 G	9,700 G	300,000 S	300,000 S	300,000 S	300,000 S
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.22 N	1.1 N	22 N	110 N	22 N	110 N
DIQUAT	[85-00-7] 2764-72-9	20 M	20 M	2,000 M	2,000 M	20 M	20 M
DISULFOTON	298-04-4	0.7 H	0.7 H	70 H	70 H	700 H	700 H
DITHIANE, 1,4-	505-29-3	80 H	80 H	8,000 H	8,000 H	80 H	80 H
DIURON	330-54-1	69 G	190 G	6,900 G	19,000 G	69 G	190 G
ENDOSULFAN	115-29-7	210 G	480 S	480 S	480 S	480 S	480 S
ENDOSULFAN I (ALPHA)	959-98-8	210 G	500 S	500 S	500 S	210 G	500 S
ENDOSULFAN II (BETA)	33213-65-9	210 G	450 S	450 S	450 S	210 G	450 S
ENDOSULFAN SULFATE	1031-07-8	120 S	120 S	120 S	120 S	120 S	120 S

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		R	NR	R	NR	R	NR
ENDOTHALL	145-73-3	100 M	100 M	10,000 M	10,000 M	100 M	100 M
ENDRIN	72-20-8	2 M	2 M	200 M	200 M	2 M	2 M
EPICHLOROHYDRIN	106-89-8	2.1 N	8.8 N	210 N	880 N	210 N	880 N
ETHEPHON	16672-87-0	170 G	490 G	17,000 G	49,000 G	170 G	490 G
ETHION	563-12-2	17 G	49 G	850 S	850 S	17 G	49 G
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[420] N 84	[1,800] N 350	[42,000] N 8,400	[180,000] N 35,000	[42,000] N 8,400	[180,000] N 35,000
ETHYL ACETATE	141-78-6	150 N	620 N	15,000 N	62,000 N	15,000 N	62,000 N
ETHYL ACRYLATE	140-88-5	[14] [G] 17 N	[57] [G] 70 N	[1,400] [G] 1,700 N	[5,700] [G] 7,000 N	[1,400] [G] 1,700 N	[5,700] [G] 7,000 N
ETHYL BENZENE	100-41-4	700 M	700 M	70,000 M	70,000 M	70,000 M	70,000 M
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	1,700 G	4,900 G	170,000 G	370,000 S	1,700 G	4,900 G
ETHYL ETHER	60-29-7	6,900 G	19,000 G	690,000 G	1,900,000 G	6,900 G	19,000 G
ETHYL METHACRYLATE	97-63-2	630 N	2,600 N	63,000 N	260,000 N	630 N	2,600 N
ETHYLENE CHLORHYDRIN	107-07-3	690 G	1,900 G	69,000 G	190,000 G	690 G	1,900 G
ETHYLENE GLYCOL	107-21-1	14,000 H	14,000 H	1,400,00 0	1,400,000 H	1,400,000 H	1,400,000 H
ETHYLENE THIOUREA (ETU)	96-45-7	2.8 G	7.8 G	280 G	780 G	2,800 G	7,800 G
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.35 G	0.97 G	35 G	97 G	0.35 G	0.97 G
FENAMIPHOS	22224-92-6	0.7 H	0.7 H	70 H	70 H	0.7 H	0.7 H
FENVALERATE (PYDRIN)	51630-58-1	85 S	85 S	85 S	85 S	85 S	85 S
FLUOMETURON	2164-17-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
FLUORANTHENE	206-44-0	260 S	260 S	260 S	260 S	260 S	260 S
FLUORENE	86-73-7	1,400 G	1,900 S	1,900 S	1,900 S	1,900 S	1,900 S
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
FONOFOS	944-22-9	10 H	10 H	1,000 H	1,000 H	10 H	10 H
FORMALDEHYDE	50-00-0	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
FORMIC ACID	64-18-6	0.63 N	2.6 N	63 N	260 N	6.3 N	26 N
FOSETYL-AL	39148-24-8	87,000 G	240,000 G	8,700,00 0	24,000,000 G	87,000 G	240,000 G
FURAN	110-00-9	35 G	97 G	3,500 G	9,700 G	3,500 G	9,700 G
FURFURAL	98-01-1	19 G	78 G	1,900 G	7,800 G	19 G	78 G

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		R	NR	R	NR	R	NR
GLYPHOSATE	1071-83-6	700 M	700 M	70,000 M	70,000 M	700 M	700 M
HEPTACHLOR	76-44-8	0.4 M	0.4 M	40 M	40 M	180 S	180 S
HEPTACHLOR EPOXIDE	1024-57-3	0.2 M	0.2 M	20 M	20 M	200 M	200 M
HEXACHLOROBENZENE	118-74-1	1 M	1 M	6 S	6 S	6 S	6 S
HEXACHLOROBUTADIENE	87-68-3	8.4 G	35 G	840 G	2,900 S	2,900 S	2,900 S
HEXACHLOROCYCLOPENTADIENE	77-47-4	50 M	50 M	1,800 S	1,800 S	1,800 S	1,800 S
HEXACHLOROETHANE	67-72-1	1 H	1 H	100 H	100 H	100 H	100 H
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID (GEN-X) (HI)	13252-13-6	0.01 H M	0.01 H M	1 H M	1 H M	0.01 H M	0.01 H M
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID AMMONIUM SALT (GEN-X)	62037-80-3	0.01 H	0.01 H	1 H	1 H	0.01 H	0.01 H
HEXANE	110-54-3	1,500 N	5,800 G	9,500 S	9,500 S	1,500 N	5,800 G
HEXAZINONE	51235-04-2	400 H	400 H	40,000 H	40,000 H	400 H	400 H
HEXYTHIAZOX (SAVEY)	78587-05-0	500 S	500 S	500 S	500 S	500 S	500 S
HMX	2691-41-0	400 H	400 H	5,000 S	5,000 S	400 H	400 H
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.01 N	0.051 N	1 N	5.1 N	0.1 N	0.51 N
HYDROQUINONE	123-31-9	11 G	45 G	1,100 G	4,500 G	11,000 G	45,000 G
INDENO[1,2,3-CD]PYRENE	193-39-5	[0.18] G 2.1	[2.3] G 27	[18] [G] 62 S	62 S	62 S	62 S
IPRODIONE	36734-19-7	15 G	62 G	1,500 G	6,200 G	15 G	62 G
ISOBUTYL ALCOHOL	78-83-1	10,000 G	29,000 G	1,000,000 G	2,900,000 G	1,000,000 G	2,900,000 G
ISOPHORONE	78-59-1	100 H	100 H	10,000 H	10,000 H	100,000 H	100,000 H
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	700 H	700 H	70,000 H	70,000 H	700 H	700 H
KEPONE	143-50-0	0.065 G	0.27 G	6.5 G	27 G	65 G	270 G
MALATHION	121-75-5	500 H	500 H	50,000 H	50,000 H	140,000 S	140,000 S
MALEIC HYDRAZIDE	123-33-1	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
MANEB	12427-38-2	11 G	45 G	1,100 G	4,500 G	11 G	45 G
MERPPOS OXIDE	78-48-8	17 G	49 G	1,700 G	2,300 S	17 G	49 G
METHACRYLONITRILE	126-98-7	3.5 G	9.7 G	350 G	970 G	3.5 G	9.7 G
METHAMIDOPHOS	10265-92-6	1.7 G	4.9 G	170 G	490 G	1.7 G	4.9 G
METHANOL	67-56-1	42,000 N	180,000 N	4,200,000 N	18,000,000 N	4,200,000 N	18,000,000 N

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Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
METHOMYL	16752-77-5	200 H	200 H	20,000 H	20,000 H	200 H	200 H
METHOXYCHLOR	72-43-5	40 M	40 M	45 S	45 S	45 S	45 S
METHOXYETHANOL, 2-	109-86-4	[42] 15 N	[180] 62 N	[4,200] 1,500 N	[18,000] 6,200 N	[420] 150 N	[1,800] 620 N
METHYL ACETATE	79-20-9	35,000 G	97,000 G	3,500,000	9,700,000 G	35,000 G	97,000 G
METHYL ACRYLATE	96-33-3	42 N	180 N	4,200 N	18,000 N	4,200 N	18,000 N
METHYL CHLORIDE	74-87-3	30 H	30 H	3,000 H	3,000 H	3,000 H	3,000 H
METHYL ETHYL KETONE	78-93-3	4,000 H	4,000 H	400,000 H	400,000 H	400,000 H	400,000 H
METHYL HYDRAZINE	60-34-4	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
METHYL ISOBUTYL KETONE	108-10-1	[2,800] [G] 6,300 N	[7,800] [G] 26,000 N	[280,000] [G] 630,000 N	[780,000] [G] 2,600,000 N	[280,000] [G] 630,000 N	[780,000] [G] 2,600,000 N
METHYL ISOCYANATE	624-83-9	2.1 N	8.8 N	210 N	880 N	2.1 N	8.8 N
METHYL N-BUTYL KETONE	591-78-6	63 N	260 N	6,300 N	26,000 N	63 N	260 N
METHYL METHACRYLATE	80-62-6	1,500 N	6,200 N	150,000 N	620,000 N	150,000 N	620,000 N
METHYL METHANESULFONATE	66-27-3	6.6 G	27 G	660 G	2,700 G	6.6 G	27 G
METHYL PARATHION	298-00-0	1 H	1 H	100 H	100 H	1,000 H	1,000 H
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	84 N	350 N	8,400 N	35,000 N	84 N	350 N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	20	20	2,000	2,000	200	200
METHYLCHLOROPHOXYACETIC ACID (MCPA)	94-74-6	30 H	30 H	3,000 H	3,000 H	30,000 H	30,000 H
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	2.1 G	27 G	210 G	2,700 G	2.1 G	27 G
METHYLNAPHTHALENE, 2-	91-57-6	6.3 N	26 N	630 N	2,600 N	6.3 N	26 N
METHYLSTYRENE, ALPHA	98-83-9	2,400 G	6,800 G	240,000 G	560,000 S	2,400 G	6,800 G
METOLACHLOR	51218-45-2	700 H	700 H	70,000 H	70,000 H	700 H	700 H
METRIBUZIN	21087-64-9	70 H	70 H	7,000 H	7,000 H	70 H	70 H
MEVINPHOS	7786-34-7	0.87 G	2.4 G	87 G	240 G	0.87 G	2.4 G
MONOCHLOROACETIC ACID (HAA)	79-11-8	60 [H] M	60 [H] M	6,000 [H] M	6,000 [H] M	60 [H] M	60 [H] M
NAPHTHALENE	91-20-3	100 H	100 H	10,000 H	10,000 H	10,000 H	10,000 H
NAPHTHYLAMINE, 1-	134-32-7	0.36 G	1.5 G	36 G	150 G	36 G	150 G
NAPHTHYLAMINE, 2-	91-59-8	0.36 G	1.5 G	36 G	150 G	360 G	1,500 G
NAPROPAMIDE	15299-99-7	4,200 G	12,000 G	70,000 S	70,000 S	4,200 G	12,000 G

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Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR	R	NR
NITROANILINE, O-	88-74-4	0.11 N	0.44 N	11 N	44 N	0.11 N	0.44 N
NITROANILINE, P-	100-01-6	33 G	140 G	3,300 G	14,000 G	33 G	140 G
NITROBENZENE	98-95-3	1.2 N	6.3 N	120 N	630 N	120 N	630 N
NITROGUANIDINE	556-88-7	700 H	700 H	70,000 H	70,000 H	700 H	700 H
NITROPHENOL, 2-	88-75-5	280 G	780 G	28,000 G	78,000 G	28,000 G	78,000 G
NITROPHENOL, 4-	100-02-7	60 H	60 H	6,000 H	6,000 H	6,000 H	6,000 H
NITROPROPANE, 2-	79-46-9	[0.018] 0.084 N	[0.093] 0.43 N	[1.8] 8.4 N	[9.3] 43 N	[0.18] 0.84 N	[0.93] 4.3 N
NITROSODIETHYLAMINE, N-	55-18-5	0.00045 N	0.0058 N	0.045 N	0.58 N	0.0045 N	0.058 N
NITROSODIMETHYLAMINE, N-	62-75-9	0.0014 N	0.018 N	0.14 N	1.8 N	0.014 N	0.18 N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	0.031 N	0.16 N	3.1 N	16 N	3.1 N	16 N
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.025 N	0.13 N	2.5 N	13 N	0.25 N	1.3 N
NITROSODIPHENYLAMINE, N-	86-30-6	19 N	96 N	1,900 N	9,600 N	1,900 N	9,600 N
NITROSO-N-ETHYLUREA, N-	759-73-9	0.0079 G	0.1 G	0.79 G	10 G	7.9 G	100 G
OCTYL PHTHALATE, DI-N-	117-84-0	350 G	970 G	3,000 S	3,000 S	3,000 S	3,000 S
OXAMYL (VYDATE)	23135-22-0	200 M	200 M	20,000 M	20,000 M	200 M	200 M
PARAQUAT	1910-42-5	30 H	30 H	3,000 H	3,000 H	30 H	30 H
PARATHION	56-38-2	1 G	2.9 G	100 G	290 G	1 G	2.9 G
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	1336-36-3	0.5 M	0.5 M	50 M	50 M	0.5 M	0.5 M
PCB-1016 (AROCLOR)	12674-11-2	2.4 G	6.8 G	240 G	250 S	2.4 G	6.8 G
PCB-1221 (AROCLOR)	11104-28-2	0.33 G	1.4 G	33 G	140 G	0.33 G	1.4 G
PCB-1232 (AROCLOR)	11141-16-5	0.33 G	1.4 G	33 G	140 G	0.33 G	1.4 G
PCB-1242 (AROCLOR)	53469-21-9	0.33 G	1.4 G	33 G	100 S	0.33 G	1.4 G
PCB-1248 (AROCLOR)	12672-29-6	0.33 G	1.4 G	33 G	54 S	0.33 G	1.4 G
PCB-1254 (AROCLOR)	11097-69-1	0.69 G	1.9 G	57 S	57 S	0.69 G	1.9 G
PCB-1260 (AROCLOR)	11096-82-5	0.33 G	1.4 G	33 G	80 S	0.33 G	1.4 G
PEBULATE	1114-71-2	[1,700] 24 G	[4,900] 68 G	[92,000] 2,400 [S] G	[92,000] 6,800 [S] G	[1,700] 24 G	[4,900] 68 G
PENTACHLOROBENZENE	608-93-5	28 G	78 G	740 S	740 S	740 S	740 S
PENTACHLOROETHANE	76-01-7	7.2 G	30 G	720 G	3,000 G	7.2 G	30 G

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Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR	R	NR
PENTACHLORONITROBENZENE	82-68-8	2.5 G	10 G	250 G	440 S	440 S	440 S
PENTACHLOROPHENOL	87-86-5	1 M	1 M	100 M	100 M	1,000 M	1,000 M
PERFLUOROBUTANE SULFONATE (PFBS) (HI)	375-73-5	[10] [G] <u>2 H</u>	[29] [G] <u>2 H</u>	[1,000] [G] <u>200 H</u>	[2,900] [G] <u>200 H</u>	[10] [G] <u>2 H</u>	[29] [G] <u>2 H</u>
PERFLUOROBUTANOIC ACID (PFBA)	375-22-4	<u>35 G</u>	<u>97 G</u>	<u>3,500 G</u>	<u>9,700 G</u>	<u>35 G</u>	<u>97 G</u>
PERFLUOROHEXANE SULFONATE (PFHxS) (HI)	355-46-4	0.01 M	0.01 M	1 M	1 M	0.01 M	0.01 M
PERFLUOROHEXANOIC ACID (PFHxA)	307-24-4	<u>17 G</u>	<u>49 G</u>	<u>1,700 G</u>	<u>4,900 G</u>	<u>17 G</u>	<u>49 G</u>
PERFLUORONONANOIC ACID (PFNA) (HI)	375-95-1	0.01 M	0.01 M	1 M	1 M	0.01 M	0.01 M
PERFLUOROOCCTANE SULFONATE (PFOS)	1763-23-1	[0.07] [H] <u>0.018 M</u> 0.004	[0.07] [H] <u>0.018 M</u> 0.004	[7] [H] <u>1.8 M</u> 0.4	[7] [H] <u>1.8 M</u> 0.4	[0.07] [H] <u>0.018 M</u> 0.004	[0.07] [H] <u>0.018 M</u> 0.004
PERFLUOROOCCTANOIC ACID (PFOA)	335-67-1	[0.07] [H] <u>0.014 M</u> 0.004	[0.07] [H] <u>0.014 M</u> 0.004	[7] <u>1.4</u> [H] 0.4 <u>M</u>	[7] <u>1.4</u> [H] 0.4 <u>M</u>	[0.07] [H] <u>0.014 M</u> 0.004	[0.07] [H] <u>0.014 M</u> 0.004
PHENACETIN	62-44-2	300 G	1,200 G	30,000 G	120,000 G	300,000 G	760,000 S
PHENANTHRENE	85-01-8	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S
PHENOL	108-95-2	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
PHENYL MERCAPTAN	108-98-5	35 G	97 G	3,500 G	9,700 G	35 G	97 G
PHENYLENEDIAMINE, M-	108-45-2	210 G	580 G	21,000 G	58,000 G	210,000 G	580,000 G
PHENYLPHENOL, 2-	90-43-7	340 G	1,400 G	34,000 G	140,000 G	340,000 G	700,000 S
PHORATE	298-02-2	[6.9] G <u>5.9</u>	[19] G <u>17</u>	[690] G <u>590</u>	[1,900] G <u>1,700</u>	[6.9] G <u>5.9</u>	[19] G <u>17</u>
PHTHALIC ANHYDRIDE	85-44-9	42 N	180 N	4,200 N	18,000 N	4,200 N	18,000 N
PICLORAM	1918-02-1	500 M	500 M	50,000 M	50,000 M	500 M	500 M
POTASSIUM PERFLUOROBUTANE SULFONATE	29420-49-3	<u>2 H</u>	<u>2 H</u>	<u>200 H</u>	<u>200 H</u>	<u>2 H</u>	<u>2 H</u>
PROMETON	1610-18-0	400 H	400 H	40,000 H	40,000 H	400 H	400 H
PRONAMIDE	23950-58-5	2,600 G	7,300 G	15,000 S	15,000 S	2,600 G	7,300 G
PROPACHLOR	1918-16-7	0.1 H	0.1 H	10 H	10 H	10 H	10 H
PROPANIL	709-98-8	170 G	490 G	17,000 G	49,000 G	170 G	490 G
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
PROPAZINE	139-40-2	10 H	10 H	1,000 H	1,000 H	10 H	10 H
PROPHAM	122-42-9	100 H	100 H	10,000 H	10,000 H	100 H	100 H

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		R	NR	R	NR		
PROPYLBENZENE, N-	103-65-1	2,100 N	8,800 N	52,000 S	52,000 S	2,100 N	8,800 N
PROPYLENE OXIDE	75-56-9	2.7 G	11 G	270 G	1,100 G	2.7 G	11 G
PYRENE	129-00-0	130 S	130 S	130 S	130 S	130 S	130 S
PYRETHRUM	8003-34-7	350 S	350 S	350 S	350 S	350 S	350 S
PYRIDINE	110-86-1	35 G	97 G	3,500 G	9,700 G	350 G	970 G
QUINOLINE	91-22-5	0.22 G	0.91 G	22 G	91 G	220 G	910 G
QUIZALOFOP (ASSURE)	76578-14-8	300 S	300 S	300 S	300 S	300 S	300 S
RDX	121-82-4	2 H	2 H	200 H	200 H	2 H	2 H
RESORCINOL	108-46-3	69,000 G	190,000 G	6,900,000 G	19,000,000 G	69,000 G	190,000 G
RONNEL	299-84-3	1,700 G	4,900 G	40,000 S	40,000 S	1,700 G	4,900 G
SIMAZINE	122-34-9	4 M	4 M	400 M	400 M	4 M	4 M
STRYCHNINE	57-24-9	10 G	29 G	1,000 G	2,900 G	10,000 G	29,000 G
STYRENE	100-42-5	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
TEBUTHIURON	34014-18-1	500 H	500 H	50,000 H	50,000 H	500 H	500 H
TERBACIL	5902-51-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
TERBUFOS	13071-79-9	0.4 H	0.4 H	40 H	40 H	0.4 H	0.4 H
TETRACHLOROENZENE, 1,2,4,5-	95-94-3	[10] G 1	[29] G 2.9	[580] [S] 100 G	[580] [S] 290 G	580 S	580 S
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00003 M	0.00003 M	0.003 M	0.003 M	0.019 S	0.019 S
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	70 H	70 H	7,000 H	7,000 H	7,000 H	7,000 H
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.84 N	4.3 N	84 N	430 N	84 N	430 N
TETRACHLOROETHYLENE (PCE)	127-18-4	5 M	5 M	500 M	500 M	50 M	50 M
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	1,000 G	2,900 G	100,000 G	180,000 S	180,000 S	180,000 S
TETRAETHYL LEAD	78-00-2	0.0035 G	0.0097 G	0.35 G	0.97 G	3.5 G	9.7 G
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	17 G	49 G	1,700 G	4,900 G	17 G	49 G
TETRAHYDROFURAN	109-99-9	25 N	130 N	2,500 N	13,000 N	25 N	130 N
THIOFANOX	39196-18-4	10 G	29 G	1,000 G	2,900 G	10 G	29 G
THIRAM	137-26-8	520 G	1,500 G	30,000 S	30,000 S	520 G	1,500 G
TOLUENE	108-88-3	1,000 M	1,000 M	100,000 M	100,000 M	100,000 M	100,000 M
TOLUIDINE, M-	108-44-1	41 G	170 G	4,100 G	17,000 G	41 G	170 G
TOLUIDINE, O	95-53-4	41 G	170 G	4,100 G	17,000 G	41,000 G	170,000 G

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TOLUIDINE, P-	106-49-0	22 G	91 G	2,200 G	9,100 G	22 G	91 G
TOXAPHENE	8001-35-2	3 M	3 M	300 M	300 M	3 M	3 M
TRIALATE	2303-17-5	[0.91] 9.1 G	[3.8] 38 G	[91] 910 G	[380] 3,800 G	[0.91] 9.1 G	[3.8] 38 G
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	11,000 N	44,000 N	170,000 S	170,000 S	170,000 S	170,000 S
TRICHLOROACETIC ACID (HAA)	76-03-9	60 M	60 M	6,000 M	6,000 M	60 M	60 M
TRICHLOROBENZENE, 1,2,4-	120-82-1	70 M	70 M	7,000 M	7,000 M	7,000 M	7,000 M
TRICHLOROBENZENE, 1,3,5-	108-70-3	40 H	40 H	4,000 H	4,000 H	40 H	40 H
TRICHLOROETHANE, 1,1,1-	71-55-6	200 M	200 M	20,000 M	20,000 M	2,000 M	2,000 M
TRICHLOROETHANE, 1,1,2-	79-00-5	5 M	5 M	500 M	500 M	50 M	50 M
TRICHLOROETHYLENE (TCE)	79-01-6	5 M	5 M	500 M	500 M	50 M	50 M
TRICHLOROPHENOL, 2,4,5-	95-95-4	3,500 G	9,700 G	350,000 G	970,000 G	1,000,000 S	1,000,000 S
TRICHLOROPHENOL, 2,4,6-	88-06-2	35 G	97 G	3,500 G	9,700 G	35,000 G	97,000 G
TRICHLOROPHOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	70 H	70 H	7,000 H	7,000 H	70,000 H	70,000 H
TRICHLOROPHOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)	93-72-1	50 M	50 M	5,000 M	5,000 M	50 M	50 M
TRICHLOROPROPANE, 1,1,2-	598-77-6	170 G	490 G	17,000 G	49,000 G	170 G	490 G
TRICHLOROPROPANE, 1,2,3-	96-18-4	[40] [H] 0.0071 G	[40] [H] 0.091 G	[4,000] [H] 0.71 G	[4,000] [H] 9.1 G	[4,000] [H] 0.71 G	[4,000] [H] 9.1 G
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
TRIETHYLAMINE	121-44-8	15 N	62 N	1,500 N	6,200 N	15 N	62 N
TRIETHYLENE GLYCOL	112-27-6	69,000 G	190,000 G	6,900,00 G 0	19,000,000 G	69,000 G	190,000 G
TRIFLURALIN	1582-09-8	10 H	10 H	1,000 H	1,000 H	10 H	10 H
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	130 N	530 N	13,000 N	53,000 N	13,000 N	53,000 N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	130 N	530 N	13,000 N	49,000 S	130 N	530 N
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	5 H	5 H	500 H	500 H	500 H	500 H
TRINITROTOLUENE, 2,4,6-	118-96-7	2 H	2 H	200 H	200 H	2 H	2 H
VINYL ACETATE	108-05-4	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
VINYL BROMIDE (BROMOETHENE)	593-60-2	[1.5] N 3.3	[7.8] N 17	[150] N 330	[780] N 1,700	[15] N 33	[78] N 170

All concentrations in µg/L
 R = Residential
 NR = Non-Residential
 M = Maximum Contaminant Level
 H = Lifetime health advisory level
 G = Ingestion
 N = Inhalation
 S = Aqueous solubility cap

THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.

HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

[PFOA and PFOS values listed are for individual or total combined.] HI - INCLUDE IN HI CALCULATION IN § 250.707(b)(2)(iii) FOR PFAS

Appendix A

Table 1—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Groundwater

Regulated Substance	CASRN	Used Aquifers				Nonuse Aquifers	
		TDS ≤ 2500 mg/L		TDS > 2500 mg/L		R	NR
		R	NR	R	NR		
VINYL CHLORIDE	75-01-4	2 M	2 M	200 M	200 M	20 M	20 M
WARFARIN	81-81-2	10 G	29 G	1,000 G	2,900 G	10,000 G	17,000 S
XYLENES (TOTAL)	1330-20-7	10,000 M	10,000 M	180,000 S	180,000 S	180,000 S	180,000 S
ZINEB	12122-67-7	1,700 G	4,900 G	10,000 S	10,000 S	1,700 G	4,900 G

All concentrations in µg/L

R = Residential

NR = Non-Residential

M = Maximum Contaminant Level

H = Lifetime health advisory level

G = Ingestion

N = Inhalation

S = Aqueous solubility cap

THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.

HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

[PFOA and PFOS values listed are for individual or total combined.] HI - INCLUDE IN HI CALCULATION IN § 250.707(b)(2)(iii) FOR PFAS

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential		
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet	
ACENAPHTHENE	83-32-9	13,000 G	190,000 C	190,000 C	190,000 C
ACENAPHTHYLENE	208-96-8	13,000 G	190,000 C	190,000 C	190,000 C
ACEPHATE	30560-19-1	260 G	3,800 G	190,000 C	190,000 C
ACETALDEHYDE	75-07-0	170 N	710 N	820 N	820 N
ACETONE	67-64-1	10,000 C	10,000 C	10,000 C	10,000 C
ACETONITRILE	75-05-8	1,100 N	4,700 N	5,500 N	5,500 N
ACETOPHENONE	98-86-2	10,000 C	10,000 C	10,000 C	10,000 C
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.9 G	24 G	190,000 C	190,000 C
ACROLEIN	107-02-8	0.38 N	1.6 N	1.8 N	1.8 N
ACRYLAMIDE	79-06-1	1.7 N	22 N	25 N	25 N
ACRYLIC ACID	79-10-7	[19] 3.8 N	[79] 16 N	[91] 18 N	[91] 18 N
ACRYLONITRILE	107-13-1	6.5 N	33 N	37 N	37 N
ALACHLOR	15972-60-8	330 G	1,600 G	190,000 C	190,000 C
ALDICARB	116-06-3	220 G	3,200 G	190,000 C	190,000 C
ALDICARB SULFONE	1646-88-4	220 G	3,200 G	190,000 C	190,000 C
ALDICARB SULFOXIDE	1646-87-3	220 G	3,200 G	190,000 C	190,000 C
ALDRIN	309-00-2	1.1 G	5.4 G	190,000 C	190,000 C
ALLYL ALCOHOL	107-18-6	1.9 N	7.9 N	9.1 N	9.1 N
AMETRYN	834-12-8	2,000 G	29,000 G	190,000 C	190,000 C
AMINOBIIPHENYL, 4-	92-67-1	0.89 G	4.3 G	190,000 C	190,000 C
AMITROLE	61-82-5	20 G	97 G	190,000 C	190,000 C
AMMONIA	7664-41-7	9,600 N	10,000 C	10,000 C	10,000 C
AMMONIUM SULFAMATE	7773-06-0	44,000 G	190,000 C	190,000 C	190,000 C
ANILINE	62-53-3	19 N	79 N	90 N	90 N
ANTHRACENE	120-12-7	66,000 G	190,000 C	190,000 C	190,000 C
ATRAZINE	1912-24-9	81 G	400 G	190,000 C	190,000 C
AZINPHOS-METHYL (GUTHION)	86-50-0	330 G	4,800 G	190,000 C	190,000 C
BAYGON (PROPOXUR)	114-26-1	880 G	13,000 G	190,000 C	190,000 C
BENOMYL	17804-35-2	7,800 G	38,000 G	190,000 C	190,000 C
BENTAZON	25057-89-0	6,600 G	96,000 G	190,000 C	190,000 C
BENZENE	71-43-2	57 N	280 N	330 N	330 N
BENZIDINE	92-87-5	0.018 G	0.4 G	190,000 C	190,000 C
BENZO[A]ANTHRACENE	56-55-3	[6.1] 42 G	[130] 910 G	190,000 C	190,000 C
BENZO[A]PYRENE	50-32-8	4.2 G	91 G	190,000 C	190,000 C
BENZO[B]FLUORANTHENE	205-99-2	[3.5] 42 G	[76] 910 G	190,000 C	190,000 C
BENZO[GHI]PERYLENE	191-24-2	13,000 G	190,000 C	190,000 C	190,000 C
BENZO[K]FLUORANTHENE	207-08-9	[3.5] 420 G	[76] 9,100 G	190,000 C	190,000 C
BENZOIC ACID	65-85-0	190,000 C	190,000 C	190,000 C	190,000 C
BENZOTRICHLORIDE	98-07-7	1.4 G	7 G	10,000 C	10,000 C
BENZYL ALCOHOL	100-51-6	10,000 C	10,000 C	10,000 C	10,000 C
BENZYL CHLORIDE	100-44-7	9 N	45 N	52 N	52 N
BETA PROPIOLACTONE	57-57-8	0.11 N	0.55 N	0.63 N	0.63 N
BHC, ALPHA	319-84-6	3 G	14 G	190,000 C	190,000 C
BHC, BETA-	319-85-7	10 G	51 G	190,000 C	190,000 C
BHC, GAMMA (LINDANE)	58-89-9	[17] 2.2 G	[83] 32 G	190,000 C	190,000 C
BIPHENYL, 1,1-	92-52-4	8.2 N	34 N	40 N	40 N
BIS(2-CHLOROETHOXY)METHANE	111-91-1	660 G	9,600 G	10,000 C	10,000 C
BIS(2-CHLOROETHYL)ETHER	111-44-4	1.3 N	6.7 N	7.6 N	7.6 N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	[44] 8,800 [N] G	[220] [N] 10,000 C	[250] [N] 10,000 C	[250] [N] 10,000 C
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0071 N	0.036 N	0.041 N	0.041 N

All concentrations in mg/kg

G—Ingestion

N—Inhalation

C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet		Nonresidential			
				Surface Soil 0—2 feet	Subsurface Soil 2—15 feet		
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1,300	G	6,500 G	10,000 C		
BISPHENOL A	80-05-7	11,000	G	160,000 G	190,000 C		
BROMACIL	314-40-9	22,000	G	190,000 C	190,000 C		
BROMOBENZENE	108-86-1	1,100	N	4,700 N	5,400 N		
BROMOCHLOROMETHANE	74-97-5	760	N	3,200 N	3,600 N		
BROMODICHLOROMETHANE	75-27-4	12	N	60 N	69 N		
BROMOMETHANE	74-83-9	95	N	400 N	460 N		
BROMOXYNIL	1689-84-5	180	G	880 G	190,000 C		
BROMOXYNIL OCTANOATE	1689-99-2	180	G	880 G	190,000 C		
BUTADIENE, 1,3-	106-99-0	15	N	74 N	85 N		
BUTYL ALCOHOL, N-	71-36-3	10,000	C	10,000 C	10,000 C		
BUTYLATE	2008-41-5	10,000	C	10,000 C	10,000 C		
BUTYLBENZENE, N-	104-51-8	10,000	C	10,000 C	10,000 C		
BUTYLBENZENE, SEC-	135-98-8	10,000	C	10,000 C	10,000 C		
BUTYLBENZENE, TERT-	98-06-6	10,000	C	10,000 C	10,000 C		
BUTYLBENZYL PHTHALATE	85-68-7	9,800	G	10,000 C	10,000 C		
CAPTAN	133-06-2	8,100	G	40,000 G	190,000 C		
CARBARYL	63-25-2	22,000	G	190,000 C	190,000 C		
[CARBAZOLE]	[86-74-8]	[930]	[G]	[4,600]	[G]	[190,000]	[C]
CARBOFURAN	1563-66-2	1,100	G	16,000 G	190,000 C		
CARBON DISULFIDE	75-15-0	10,000	C	10,000 C	10,000 C		
CARBON TETRACHLORIDE	56-23-5	75	N	370 N	430 N		
CARBOXIN	5234-68-4	22,000	G	190,000 C	190,000 C		
CHLORAMBEN	133-90-4	3,300	G	48,000 G	190,000 C		
CHLORDANE	57-74-9	53	G	260 G	190,000 C		
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	10,000	C	10,000 C	10,000 C		
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19	N	80 N	92 N		
CHLOROACETALDEHYDE	107-20-0	69	G	340 G	10,000 C		
CHLOROACETOPHENONE, 2-	532-27-4	190,000	C	190,000 C	190,000 C		
CHLOROANILINE, P-	106-47-8	93	G	460 G	190,000 C		
CHLOROBENZENE	108-90-7	950	N	3,900 N	4,500 N		
CHLOROBENZILATE	510-15-6	170	G	830 G	190,000 C		
CHLOROBUTANE, 1-	109-69-3	8,800	G	10,000 C	10,000 C		
CHLORODIBROMOMETHANE	124-48-1	220	G	1,100 G	10,000 C		
CHLORODIFLUOROMETHANE	75-45-6	10,000	C	10,000 C	10,000 C		
CHLOROETHANE	75-00-3	10,000	C	10,000 C	10,000 C		
CHLOROFORM	67-66-3	19	N	96 N	110 N		
CHLORONAPHTHALENE, 2-	91-58-7	18,000	G	190,000 C	190,000 C		
CHLORONITROBENZENE, P-	100-00-5	39	N	160 N	180 N		
CHLOROPHENOL, 2-	95-57-8	1,100	G	10,000 C	10,000 C		
CHLOROPRENE	126-99-8	1.5	N	7.4 N	8.5 N		
[CHLOROPROPANE, 2-]	[75-29-6]	[1,900]	[N]	[7,900]	[N]	[9,100]	[N]
CHLOROTHALONIL	1897-45-6	1,100	G	5,400 G	190,000 C		
CHLOROTOLUENE, O-	95-49-8	4,400	G	10,000 C	10,000 C		
CHLOROTOLUENE, P-	106-43-4	4,400	C	10,000 C	10,000 C		
CHLORPYRIFOS	2921-88-2	220	G	3,200 G	190,000 C		
CHLORSULFURON	64902-72-3	[4,400] 11,000	G	[64,000] 160,000	G	190,000 C	
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2,200	G	32,000 G	190,000 C		
CHRYSENE	218-01-9	[35] 4,200	G	[760] 91,000	G	190,000 C	

All concentrations in mg/kg

- G—Ingestion
- N—Inhalation
- C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential		
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet	
CRESOL(S)	1319-77-3	10,000 C	10,000 C	10,000 C	
CRESOL, 4,6-DINITRO-O-	534-52-1	18 G	260 G	190,000 C	
CRESOL, O- (2-METHYLPHENOL)	95-48-7	11,000 G	160,000 G	190,000 C	
CRESOL, M- (3-METHYLPHENOL)	108-39-4	10,000 C	10,000 C	10,000 C	
CRESOL, P- (4-METHYLPHENOL)	106-44-5	[1,100] G 4,400	[16,000] G 64,000	190,000 C	
CRESOL, P-CHLORO-M-	59-50-7	22,000 G	190,000 G	190,000 C	
CROTONALDEHYDE	4170-30-3	[9.8] 220 G	[48] 3,200 G	10,000 C	
CROTONALDEHYDE, TRANS-	123-73-9	[9.8] 220 G	[48] 3,200 G	10,000 C	
CUMENE (ISOPROPYL BENZENE)	98-82-8	7,600 N	10,000 C	10,000 C	
CYANAZINE	21725-46-2	[22] 440 G	[110] G 6,400	190,000 C	
CYCLOHEXANE	110-82-7	10,000 C	10,000 C	10,000 C	
CYCLOHEXANONE	108-94-1	10,000 C	10,000 C	10,000 C	
CYFLUTHRIN	68359-37-5	5,500 G	80,000 G	190,000 C	
CYROMAZINE	66215-27-8	110,000 G	190,000 C	190,000 C	
DDD, 4,4'-	72-54-8	78 G	380 G	190,000 C	
DDE, 4,4'-	72-55-9	55 G	270 G	190,000 C	
DDT, 4,4'-	50-29-3	55 G	270 G	190,000 C	
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10,000 C	10,000 C	10,000 C	
DIALATE	2303-16-4	300 G	1,500 G	10,000 C	
DIAMINOTOLUENE, 2,4-	95-80-7	4.7 G	23 G	190,000 C	
DIAZINON	333-41-5	150 G	2,200 G	10,000 C	
DIBENZO[A,H]ANTHRACENE	53-70-3	[1] 4.2 G	[22] 91 G	190,000 C	
DIBENZOFURAN	132-64-9	220 G	3,200 G	190,000 C	
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.029 N	0.37 N	0.42 N	
DIBROMOBENZENE, 1,4-	106-37-6	2,200 G	32,000 G	190,000 C	
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.74 N	3.7 N	4.2 N	
DIBROMOMETHANE	74-95-3	76 N	310 N	360 N	
DIBUTYL PHTHALATE, N-	84-74-2	10,000 C	10,000 C	10,000 C	
DICAMBA	1918-00-9	6,600 G	96,000 G	190,000 C	
DICHLOROACETIC ACID	76-43-6	370 G	1,800 G	10,000 C	
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.11 N	0.52 N	0.6 N	
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.11 N	0.52 N	0.6 N	
DICHLOROBENZENE, 1,2-	95-50-1	[3,800] [N] 10,000 C	10,000 C	10,000 C	
DICHLOROBENZENE, 1,3-	541-73-1	10,000 C	10,000 C	10,000 C	
DICHLOROBENZENE, P-	106-46-7	40 N	200 N	230 N	
DICHLOROBENZIDINE, 3,3'-	91-94-1	41 G	200 G	190,000 C	
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,900 N	8,000 N	9,100 N	
DICHLOROETHANE, 1,1-	75-34-3	280 N	1,400 N	1,600 N	
DICHLOROETHANE, 1,2-	107-06-2	17 N	85 N	98 N	
DICHLOROETHYLENE, 1,1-	75-35-4	3,800 N	10,000 C	10,000 C	
DICHLOROETHYLENE, CIS-1,2-	156-59-2	440 G	6,400 G	10,000 C	
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	[4,400] [G] 760 N	[10,000] [C] 3,200 N	[10,000] [C] 3,600 N	
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	1,300 G	10,000 C	10,000 C	
DICHLOROPHENOL, 2,4-	120-83-2	660 G	9,600 G	190,000 C	
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	2,200 G	32,000 G	190,000 C	
DICHLOROPROPANE, 1,2-	78-87-5	[0.12] 76 N	[0.6] 320 N	[0.69] N 360	
DICHLOROPROPENE, 1,3-	542-75-6	110 N	550 N	640 N	

All concentrations in mg/kg

G—Ingestion
N—Inhalation
C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential		
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet	
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	6,600 G	10,000 C	10,000 C	10,000 C
DICHLORVOS	62-73-7	64 G	310 G	10,000 C	10,000 C
DICYCLOPENTADIENE	77-73-6	5.7 N	24 N	27 N	27 N
DIELDRIN	60-57-1	1.2 G	5.7 G	190,000 C	190,000 C
DIETHANOLAMINE	111-42-2	440 G	6,400 G	10,000 C	10,000 C
DIETHYL PHTHALATE	84-66-2	10,000 C	10,000 C	10,000 C	10,000 C
DIFLUBENZURON	35367-38-5	4,400 G	64,000 G	190,000 C	190,000 C
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	10,000 C	10,000 C	10,000 C	10,000 C
DIMETHOATE	60-51-5	480 G	7,000 G	190,000 C	190,000 C
DIMETHOXYBENZIDINE, 3,3-	119-90-4	12 G	57 G	190,000 C	190,000 C
DIMETHRIN	70-38-2	66,000 G	190,000 C	190,000 C	190,000 C
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	4 G	20 G	190,000 C	190,000 C
DIMETHYLANILINE, N,N-	121-69-7	440 G	3,400 G	10,000 C	10,000 C
DIMETHYLBENZIDINE, 3,3-	119-93-7	1.7 G	8.3 G	190,000 C	190,000 C
DIMETHYL METHYLPHOSPHONATE	756-79-6	10,000 C	10,000 C	10,000 C	10,000 C
DIMETHYLPHENOL, 2,4-	105-67-9	4,400 G	10,000 C	10,000 C	10,000 C
DINITROBENZENE, 1,3-	99-65-0	22 G	320 G	190,000 C	190,000 C
DINITROPHENOL, 2,4-	51-28-5	440 G	6,400 G	190,000 C	190,000 C
DINITROTOLUENE, 2,4-	121-14-2	60 G	290 G	190,000 C	190,000 C
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	12 G	61 G	190,000 C	190,000 C
DINOSEB	88-85-7	220 G	3,200 G	190,000 C	190,000 C
DIOXANE, 1,4-	123-91-1	89 N	440 N	510 N	510 N
DIPHENAMID	957-51-7	6,600 G	96,000 G	190,000 C	190,000 C
DIPHENYLAMINE	122-39-4	22,000 G	190,000 C	190,000 C	190,000 C
DIPHENYLHYDRAZINE, 1,2-	122-66-7	2.1 N	10 N	12 N	12 N
DIQUAT	[85-00-7] 2764-72-9	480 G	7,000 G	190,000 C	190,000 C
DISULFOTON	298-04-4	8.8 G	130 G	10,000 C	10,000 C
DITHIANE, 1,4-	505-29-3	2,200 G	32,000 G	190,000 C	190,000 C
DIURON	330-54-1	440 G	6,400 G	190,000 C	190,000 C
ENDOSULFAN	115-29-7	1,300 G	19,000 G	190,000 C	190,000 C
ENDOSULFAN I (ALPHA)	959-98-8	1,300 G	19,000 G	190,000 C	190,000 C
ENDOSULFAN II (BETA)	33213-65-9	1,300 G	19,000 G	190,000 C	190,000 C
ENDOSULFAN SULFATE	1031-07-8	1,300 G	19,000 G	190,000 C	190,000 C
ENDOTHALL	145-73-3	4,400 G	64,000 G	190,000 C	190,000 C
ENDRIN	72-20-8	66 G	960 G	190,000 C	190,000 C
EPICHLOROHYDRIN	106-89-8	19 N	79 N	91 N	91 N
ETHEPHON	16672-87-0	1,100 G	16,000 G	190,000 C	190,000 C
ETHION	563-12-2	110 G	1,600 G	10,000 C	10,000 C
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[3,800] 770 N	[10,000] 3,200 [C] N	[10,000] 3,700 [C] N	[10,000] 3,700 [C] N
ETHYL ACETATE	141-78-6	1,300 N	5,500 N	6,300 N	6,300 N
ETHYL ACRYLATE	140-88-5	150 N	630 N	720 N	720 N
ETHYL BENZENE	100-41-4	180 N	880 N	1,000 N	1,000 N
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	10,000 C	10,000 C	10,000 C	10,000 C
ETHYL ETHER	60-29-7	10,000 C	10,000 C	10,000 C	10,000 C
ETHYL METHACRYLATE	97-63-2	5,700 N	10,000 C	10,000 C	10,000 C
ETHYLENE CHLORHYDRIN	107-07-3	4,400 G	10,000 C	10,000 C	10,000 C
ETHYLENE GLYCOL	107-21-1	7,600 N	10,000 C	10,000 C	10,000 C
ETHYLENE THIOUREA (ETU)	96-45-7	18 G	260 G	190,000 C	190,000 C

All concentrations in mg/kg

G—Ingestion

N—Inhalation

C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential	
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.2 G	32 G	190,000 C
FENAMIPHOS	22224-92-6	55 G	800 G	190,000 C
FENVALERATE (PYDRIN)	51630-58-1	5,500 G	10,000 C	10,000 C
FLUOMETURON	2164-17-2	2,900 G	42,000 G	190,000 C
FLUORANTHENE	206-44-0	8,800 G	130,000 G	190,000 C
FLUORENE	86-73-7	8,800 G	130,000 G	190,000 C
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	10,000 C	10,000 C	10,000 C
FONOFOS	944-22-9	440 G	6,400 G	10,000 C
FORMALDEHYDE	50-00-0	34 N	170 N	200 N
FORMIC ACID	64-18-6	5.7 N	24 N	27 N
FOSETYL-AL	39148-24-8	190,000 C	190,000 C	190,000 C
FURAN	110-00-9	220 G	3,200 G	10,000 C
FURFURAL	98-01-1	530 G	2,600 G	4,500 N
GLYPHOSATE	1071-83-6	22,000 G	190,000 C	190,000 C
HEPTACHLOR	76-44-8	4.1 G	20 G	190,000 C
HEPTACHLOR EPOXIDE	1024-57-3	2 G	10 G	190,000 C
HEXACHLOROENZENE	118-74-1	[12] 2.2 G	[57] 32 G	190,000 C
HEXACHLOROBUTADIENE	87-68-3	220 G	1,200 G	10,000 C
HEXACHLOROCYCLOPENTADIENE	77-47-4	1,300 G	10,000 C	10,000 C
HEXACHLOROETHANE	67-72-1	46 N	230 N	270 N
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID	13252-13-6	0.66 G	9.6 G	10,000 C
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID AMMONIUM SALT	62037-80-3	0.66 G	9.6 G	10,000 C
HEXANE	110-54-3	10,000 C	10,000 C	10,000 C
HEXAZINONE	51235-04-2	7,300 G	110,000 G	190,000 C
HEXYTHIAZOX (SAVEY)	78587-05-0	5,500 G	80,000 G	190,000 C
HMX	2691-41-0	11,000 G	160,000 G	190,000 C
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.091 N	0.45 N	0.52 N
HYDROQUINONE	123-31-9	310 G	1,500 G	190,000 C
INDENO[1,2,3-CD]PYRENE	193-39-5	[3.5] 42 G	[76] 910 G	190,000 C
IPRODIONE	36734-19-7	420 G	2,100 G	190,000 C
ISOBUTYL ALCOHOL	78-83-1	10,000 C	10,000 C	10,000 C
ISOPHORONE	78-59-1	10,000 C	10,000 C	10,000 C
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	10,000 C	10,000 C	10,000 C
KEPONE	143-50-0	1.9 G	9.1 G	190,000 C
MALATHION	121-75-5	4,400 G	10,000 C	10,000 C
MALEIC HYDRAZIDE	123-33-1	110,000 G	190,000 C	190,000 C
MANEB	12427-38-2	310 G	1,500 G	190,000 C
MERPHOS OXIDE	78-48-8	110 G	1,600 G	10,000 C
METHACRYLONITRILE	126-98-7	22 G	320 G	2,700 N
METHAMIDOPHOS	10265-92-6	11 G	160 G	190,000 C
METHANOL	67-56-1	10,000 C	10,000 C	10,000 C
METHOMYL	16752-77-5	5,500 G	80,000 G	190,000 C
METHOXYCHLOR	72-43-5	1,100 G	16,000 G	190,000 C
METHOXYETHANOL, 2-	109-86-4	[380] 130 N	[1,600] 560 N	[1,800] 640 N
METHYL ACETATE	79-20-9	10,000 C	10,000 C	10,000 C
METHYL ACRYLATE	96-33-3	380 N	1,600 N	1,800 N
METHYL CHLORIDE	74-87-3	[250] 1,700 N	[1,200] 7,200 N	[1,400] 8,200 N

All concentrations in mg/kg

G—Ingestion

N—Inhalation

C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential		
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet	
METHYL ETHYL KETONE	78-93-3	10,000 C	10,000 C	10,000	C
METHYL HYDRAZINE	60-34-4	0.38 N	1.6 N	1.8	N
METHYL ISOBUTYL KETONE	108-10-1	10,000 C	10,000 C	10,000	C
METHYL ISOCYANATE	624-83-9	19 N	79 N	91	N
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	570 N	2,400 N	2,700	N
METHYL METHACRYLATE	80-62-6	10,000 C	10,000 C	10,000	C
METHYL METHANESULFONATE	66-27-3	190 G	920 G	10,000	C
METHYL PARATHION	298-00-0	55 G	800 G	190,000	C
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	760 N	3,100 N	3,600	N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	1,700 N	8,500 N	9,800	N
METHYLCHLOROPHOXYACETIC ACD (MCPA)	94-74-6	110 G	1,600 C	190,000	C
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	42 G	910 G	190,000	C
METHYLNAPHTHALENE, 2-	91-57-6	57 N	240 N	270	N
METHYLSTYRENE, ALPHA	98-83-9	10,000 C	10,000 C	10,000	C
METOLACHLOR	51218-45-2	10,000 C	10,000 C	10,000	C
METRIBUZIN	21087-64-9	5,500 G	80,000 G	190,000	C
MEVINPHOS	7786-34-7	5.5 G	80 G	190,000	C
MONOCHLOROACETIC ACID	79-11-8	[440] 2,200 G	[6,400] 32,000 G	190,000	C
NAPHTHALENE	91-20-3	13 N	66 N	77	N
NAPHTHYLAMINE, 1-	134-32-7	10 G	51 G	190,000	C
NAPHTHYLAMINE, 2-	91-59-8	10 G	51 G	190,000	C
NAPROPAMIDE	15299-99-7	26,000 G	190,000 C	190,000	C
NITROANILINE, O-	88-74-4	0.95 N	3.9 N	4.5	N
NITROANILINE, P-	100-01-6	880 G	4,600 G	190,000	C
NITROBENZENE	98-95-3	11 N	55 N	63	N
NITROGUANIDINE	556-88-7	22,000 G	190,000 C	190,000	C
NITROPHENOL, 2-	88-75-5	1,800 G	26,000 G	190,000	C
NITROPHENOL, 4-	100-02-7	1,800 G	26,000 G	190,000	C
NITROPROPANE, 2-	79-46-9	[0.16] 0.76 N	[0.82] 3.8 N	[0.94] 4.4	N
NITROSODIETHYLAMINE, N-	55-18-5	0.0041 N	0.051 N	0.059	N
NITROSODIMETHYLAMINE, N-	62-75-9	0.012 N	0.16 N	0.18	N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	0.28 N	1.4 N	1.6	N
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.22 N	1.1 N	1.3	N
NITROSODIPHENYLAMINE, N-	86-30-6	170 N	860 N	990	N
NITROSO-N-ETHYLUREA, N-	759-73-9	0.16 G	3.4 G	190,000	C
OCTYL PHTHALATE, DI-N-	117-84-0	2,200 G	10,000 C	10,000	C
OXAMYL (VYDATE)	23135-22-0	5,500 G	80,000 G	190,000	C
PARAQUAT	1910-42-5	990 G	14,000 G	190,000	C
PARATHION	56-38-2	6.6 G	96 G	10,000	C
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	1336-36-3	9.3 G	46 G	190,000	C
PCB-1016 (AROCLOR)	12674-11-2	15 G	220 G	10,000	C
PCB-1221 (AROCLOR)	11104-28-2	4.7 N	23 N	27	N
PCB-1232 (AROCLOR)	11141-16-5	9.3 G	46 G	10,000	C
PCB-1242 (AROCLOR)	53469-21-9	9.3 G	46 G	10,000	C
PCB-1248 (AROCLOR)	12672-29-6	9.3 G	46 G	10,000	C
PCB-1254 (AROCLOR)	11097-69-1	4.4 G	64 G	10,000	C
PCB-1260 (AROCLOR)	11096-82-5	9.3 G	46 G	190,000	C

All concentrations in mg/kg
G—Ingestion
N—Inhalation
C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential	
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet
PEBULATE	1114-71-2	[10,000] [C] 150 G	[10,000] [C] 2,200 G	10,000 C
PENTACHLOROBENZENE	608-93-5	180 G	2,600 G	190,000 C
PENTACHLOROETHANE	76-01-7	210 G	1,000 G	10,000 C
PENTACHLORONITROBENZENE	82-68-8	72 G	350 G	190,000 C
PENTACHLOROPHENOL	87-86-5	47 G	230 G	190,000 C
PERFLUOROBUTANE SULFONATE (PFBS)	375-73-5	66 G	960 G	10,000 C
PERFLUOROBUTANOIC ACID (PFBA)	375-22-4	220 G	3,200 G	190,000 C
PERFLUOROHEXANE SULFONATE (PFHxS)	355-46-4	0.000088 G	0.0013 G	190,000 C
PERFLUOROHEXANOIC ACID (PFHxA)	307-24-4	110 G	1,600 G	10,000 C
PERFLUORONONANOIC ACID (PFNA)	375-95-1	0.66 G	9.6 G	190,000 C
PERFLUOROCTANE SULFONATE (PFOS)	1763-23-1	[4.4] 0.68 G 0.022	[64] 9.9 G 0.32	190,000 C
PERFLUOROCTANOIC ACID (PFOA)	335-67-1	[4.4] 0.86 G 0.00063	[64] 12 G 0.0031	190,000 C
PHENACETIN	62-44-2	8,500 G	41,000 G	190,000 C
PHENANTHRENE	85-01-8	66,000 G	190,000 C	190,000 C
PHENOL	108-95-2	3,800 N	16,000 N	18,000 N
PHENYL MERCAPTAN	108-98-5	220 G	3,200 G	10,000 C
PHENYLENEDIAMINE, M-	108-45-2	1,300 G	19,000 G	190,000 C
PHENYLPHENOL, 2-	90-43-7	9,600 G	47,000 G	190,000 C
PHORATE	298-02-2	[44] 37 G	[640] 540 G	10,000 C
PHTHALIC ANHYDRIDE	85-44-9	380 N	1,600 N	1,800 N
PICLORAM	1918-02-1	15,000 G	190,000 C	190,000 C
POTASSIUM PERFLUOROBUTANE SULFONATE	29420-49-3	66 G	960 G	190,000 C
PROMETON	1610-18-0	3,300 G	48,000 G	190,000 C
PRONAMIDE	23950-58-5	17,000 G	190,000 C	190,000 C
PROPACHLOR	1918-16-7	2,900 G	42,000 G	190,000 C
PROPANIL	709-98-8	1,100 G	16,000 G	190,000 C
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	3,800 N	10,000 C	10,000 C
PROPAZINE	139-40-2	4,400 G	10,000 C	10,000 C
PROPHAM	122-42-9	4,400 G	64,000 G	190,000 C
PROPYLBENZENE, N-	103-65-1	10,000 C	10,000 C	10,000 C
PROPYLENE OXIDE	75-56-9	78 G	380 G	690 N
PYRENE	129-00-0	6,600 G	96,000 G	190,000 C
PYRETHRUM	8003-34-7	220 G	3,200 G	10,000 C
PYRIDINE	110-86-1	220 G	3,200 G	10,000 C
QUINOLINE	91-22-5	6.2 G	30 G	10,000 C
QUIZALOFOP (ASSURE)	76578-14-8	2,000 G	29,000 G	190,000 C
RDX	121-82-4	230 G	1,100 G	190,000 C
RESORCINOL	108-46-3	190,000 C	190,000 C	190,000 C
RONNEL	299-84-3	11,000 G	160,000 G	190,000 C
SIMAZINE	122-34-9	160 G	760 G	190,000 C
STRYCHNINE	57-24-9	66 G	960 G	190,000 C
STYRENE	100-42-5	10,000 C	10,000 C	10,000 C
TEBUTHIURON	34014-18-1	15,000 G	190,000 C	190,000 C
TERBACIL	5902-51-2	2,900 G	42,000 G	190,000 C
TERBUFOS	13071-79-9	5.5 G	80 G	10,000 C
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	[66] 6.6 G	[960] 96 G	190,000 C
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00014 G	0.0007 G	190,000 C
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	60 N	300 N	340 N

All concentrations in mg/kg

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N—Inhalation

C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential 0—15 feet	Nonresidential	
			Surface Soil 0—2 feet	Subsurface Soil 2—15 feet
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	7.6 N	38 N	44 N
TETRACHLOROETHYLENE (PCE)	127-18-4	760 N	3,200 N	3,600 N
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6,600 G	96,000 G	190,000 C
TETRAETHYL LEAD	78-00-2	0.022 G	0.32 G	10,000 C
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	110 G	1,600 G	10,000 C
TETRAHYDROFURAN	109-99-9	230 N	1,100 N	1,300 N
THIOFANOX	39196-18-4	66 G	960 G	190,000 C
THIRAM	137-26-8	3,300 G	48,000 G	190,000 C
TOLUENE	108-88-3	10,000 C	10,000 C	10,000 C
TOLUIDINE, M-	108-44-1	1,200 G	5,700 G	10,000 C
TOLUIDINE, O-	95-53-4	1,200 G	5,700 G	10,000 C
TOLUIDINE, P-	106-49-0	620 G	3,000 G	190,000 C
TOXAPHENE	8001-35-2	17 G	83 G	190,000 C
TRIALATE	2303-17-5	[26] 260 G	[130] 1,300 G	10,000 C
TRIBROMOMETHANE (BROMOFORM)	75-25-2	400 N	2,000 N	2,300 N
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	10,000 C	10,000 C	10,000 C
TRICHLOROACETIC ACID	76-03-9	270 G	1,300 G	190,000 C
TRICHLOROBENZENE, 1,2,4-	120-82-1	39 N	160 N	190 N
TRICHLOROBENZENE, 1,3,5-	108-70-3	46 N	190 N	230 N
TRICHLOROETHANE, 1,1,1-	71-55-6	10,000 C	10,000 C	10,000 C
TRICHLOROETHANE, 1,1,2-	79-00-5	3.8 N	16 N	18 N
TRICHLOROETHYLENE (TCE)	79-01-6	38 N	160 N	180 N
TRICHLOROPHENOL, 2,4,5-	95-95-4	22,000 G	190,000 C	190,000 C
TRICHLOROPHENOL, 2,4,6-	88-06-2	220 G	3,200 G	190,000 C
TRICHLOROPHOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	2,200 G	32,000 G	190,000 C
TRICHLOROPHOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	1,800 G	26,000 G	190,000 C
TRICHLOROPROPANE, 1,1,2-	598-77-6	1,100 G	10,000 C	10,000 C
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.14 G	3.0 G	27 N
TRICHLOROPROPENE, 1,2,3-	96-19-5	5.7 N	24 N	27 N
TRIETHYLAMINE	121-44-8	130 N	550 N	630 N
TRIETHYLENE GLYCOL	112-27-6	10,000 C	10,000 C	10,000 C
TRIFLURALIN	1582-09-8	1,700 G	12,000 G	190,000 C
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	1,100 N	4,700 N	5,400 N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	1,100 N	4,700 N	5,400 N
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	22 G	320 G	10,000 C
TRINITROTOLUENE, 2,4,6-	118-96-7	110 G	1,600 G	190,000 C
VINYL ACETATE	108-05-4	3,800 N	10,000 C	10,000 C
VINYL BROMIDE (BROMOETHENE)	593-60-2	[14] 30 N	[70] 150 N	[80] 170 N
VINYL CHLORIDE	75-01-4	0.93 G	61 G	290 N
WARFARIN	81-81-2	66 G	960 G	190,000 C
XYLENES (TOTAL)	1330-20-7	1,900 N	7,900 N	9,100 N
ZINEB	12122-67-7	11,000 G	160,000 G	190,000 C

All concentrations in mg/kg

G—Ingestion

N—Inhalation

C—Cap

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value					
ACENAPHTHENE	83-32-9	210	2,600	E	380	4,700	E	380	4,700	E	380	4,700	E	380	4,700	E	15			
ACENAPHTHYLENE	208-96-8	210	2,400	E	580	6,600	E	1,600	18,000	E	1,600	18,000	E	1,600	18,000	E	15			
ACEPHATE	30560-19-1	4.2	0.5	E	12	1.4	E	420	50	E	1,200	140	E	4.2	0.5	E	NA			
ACETALDEHYDE	75-07-0	1.9	0.23	E	7.9	0.96	E	190	23	E	790	96	E	1.9	0.23	E	NA			
ACETONE	67-64-1	3,100	350	E	8,800	980	E	10,000	10,000	C	10,000	10,000	C	10,000	3,500	E	10,000	9,800	E	NA
ACETONITRILE	75-05-8	13	1.5	E	53	6	E	1,300	150	E	5,300	600	E	130	15	E	530	60	E	NA
ACETOPHENONE	98-86-2	350	190	E	970	520	E	10,000	10,000	C	10,000	10,000	C	350	190	E	970	520	E	NA
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.017	0.07	E	0.072	0.3	E	1.7	7	E	7.2	30	E	17	70	E	72	300	E	20
ACROLEIN	107-02-8	0.0042	0.00047	E	0.018	0.002	E	0.42	0.047	E	1.8	0.2	E	0.042	0.0047	E	0.18	0.02	E	NA
ACRYLAMIDE	79-06-1	0.019	0.0033	E	0.25	0.043	E	1.9	0.33	E	25	4.3	E	0.019	0.0033	E	0.25	0.043	E	NA
ACRYLIC ACID	79-10-7	[0.21] 0.042	[0.039] 0.0077	E	[0.88] 0.18	[0.16] 0.033	E	[21] 4.2	[3.9] 0.77	E	[88] 18	[16] 3.3	E	[21] 4.2	[3.9] 0.77	E	[88] 18	[16] 3.3	E	NA
ACRYLONITRILE	107-13-1	0.072	0.01	E	0.37	0.051	E	7.2	1	E	37	5.1	E	7.2	1	E	37	5.1	E	NA
ALACHLOR	15972-60-8	0.2	0.077	E	0.2	0.077	E	20	7.7	E	20	7.7	E	0.2	0.077	E	0.2	0.077	E	NA
ALDICARB	116-06-3	0.3	0.05	E	0.3	0.05	E	30	5	E	30	5	E	300	50	E	300	50	E	NA
ALDICARB SULFONE	1646-88-4	0.2	0.027	E	0.2	0.027	E	20	2.7	E	20	2.7	E	0.2	0.027	E	0.2	0.027	E	NA
ALDICARB SULFOXIDE	1646-87-3	0.4	0.045	E	0.4	0.045	E	40	4.5	E	40	4.5	E	0.4	0.045	E	0.4	0.045	E	NA
ALDRIN	309-00-2	0.0038	0.46	E	0.016	1.9	E	0.38	46	E	1.6	190	E	2	240	E	2	240	E	10
ALLYL ALCOHOL	107-18-6	0.021	0.0025	E	0.088	0.01	E	2.1	0.25	E	8.8	1	E	2.1	0.25	E	8.8	1	E	NA
AMETRYN	834-12-8	6	6.5	E	6	6.5	E	600	650	E	600	650	E	6	6.5	E	6	6.5	E	NA
AMINOBIHENYL, 4-	92-67-1	0.0031	0.0012	E	0.013	0.005	E	0.31	0.12	E	1.3	0.5	E	3.1	1.2	E	13	5	E	NA
AMITROLE	61-82-5	0.069	0.028	E	0.29	0.12	E	6.9	2.8	E	29	12	E	69	28	E	290	120	E	NA
AMMONIA	7664-41-7	3,000	360	E	3,000	360	E	10,000	10,000	C	10,000	10,000	C	3,000	360	E	3,000	360	E	NA
AMMONIUM SULFAMATE	7773-06-0	200	24	E	200	24	E	20,000	2,400	E	20,000	2,400	E	200	24	E	200	24	E	NA
ANILINE	62-53-3	0.21	0.12	E	0.88	0.52	E	21	12	E	88	52	E	0.21	0.12	E	0.88	0.52	E	NA
ANTHRACENE	120-12-7	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	6.6	350	E	10
ATRAZINE	1912-24-9	0.3	0.13	E	0.3	0.13	E	30	13	E	30	13	E	0.3	0.13	E	0.3	0.13	E	NA
AZINPHOS-METHYL (GUTHION)	86-50-0	5.2	5.9	E	15	17	E	520	590	E	1,500	1,700	E	5.2	5.9	E	15	17	E	NA
BAYGON (PROPOXUR)	114-26-1	0.3	0.057	E	0.3	0.057	E	30	5.7	E	30	5.7	E	300	57	E	300	57	E	NA
BENOMYL	17804-35-2	27	130	E	110	530	E	200	970	E	200	970	E	27	130	E	110	530	E	20
BENTAZON	25057-89-0	20	2.9	E	20	2.9	E	2,000	290	E	2,000	290	E	20	2.9	E	20	2.9	E	NA
BENZENE	71-43-2	0.5	0.13	E	0.5	0.13	E	50	13	E	50	13	E	50	13	E	50	13	E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

NA—The soil buffer distance option is not available for this substance

N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value					
BENZIDINE	92-87-5	0.000092	0.12	E	0.0012	1.6	E	0.0092	12	E	0.12	160	E	0.092	120	E	1.2	1,600	E	5
BENZO[A]ANTHRACENE	56-55-3	[0.03] 0.21	[26] 180	E	[0.39] 1.1	[340] 960	E	1.1	960	E	1.1	960	E	1.1	960	E	1.1	960	E	5
BENZO[A]PYRENE	50-32-8	0.02	46	E	0.02	46	E	0.38	860	E	0.38	860	E	0.38	860	E	0.38	860	E	5
BENZO[B]FLUORANTHENE	205-99-2	[0.018] 0.12	[25] 170	E	0.12	170	E	0.12	170	E	0.12	170	E	0.12	170	E	0.12	170	E	5
BENZO[GHI]PERYLENE	191-24-2	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	0.026	180	E	5
BENZO[K]FLUORANTHENE	207-08-9	[0.018] 0.055	[200] 610	E	0.055	610	E	0.055	610	E	0.055	610	E	0.055	610	E	0.055	610	E	5
BENZOIC ACID	65-85-0	14,000	2,700	E	39,000	7,500	E	190,000	52,000	E	190,000	52,000	E	14,000	2,700	E	39,000	7,500	E	NA
BENZOTRICHLORIDE	98-07-7	0.005	0.012	E	0.021	0.051	E	0.5	1.2	E	2.1	5.1	E	0.5	1.2	E	2.1	5.1	E	30
BENZYL ALCOHOL	100-51-6	350	130	E	970	350	E	10,000	10,000	C	10,000	10,000	C	350	130	E	970	350	E	NA
BENZYL CHLORIDE	100-44-7	0.1	0.059	E	0.51	0.3	E	10	5.9	E	51	30	E	10	5.9	E	51	30	E	NA
BETA PROPIOLACTONE	57-57-8	0.0012	0.00015	E	0.0063	0.00076	E	0.12	0.015	E	0.63	0.076	E	0.012	0.0015	E	0.063	0.0076	E	NA
BHC, ALPHA	319-84-6	0.01	0.046	E	0.043	0.2	E	1	4.6	E	4.3	20	E	10	46	E	43	200	E	20
BHC, BETA-	319-85-7	0.036	0.21	E	0.15	0.88	E	3.6	21	E	10	59	E	10	59	E	10	59	E	15
BHC, GAMMA (LINDANE)	58-89-9	0.02	0.072	E	0.02	0.072	E	2	7.2	E	2	7.2	E	20	72	E	20	72	E	20
BIPHENYL, 1,1-	92-52-4	0.084	0.37	E	0.35	1.5	E	8.4	37	E	35	150	E	8.4	37	E	35	150	E	20
BIS(2-CHLOROETHOXY) METHANE	111-91-1	10	2.6	E	29	7.6	E	1,000	260	E	2,900	760	E	10	2.6	E	29	7.6	E	NA
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.015	0.0045	E	0.076	0.023	E	1.5	0.45	E	7.6	2.3	E	1.5	0.45	E	7.6	2.3	E	NA
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	30	8	E	30	8	E	3,000	800	E	3,000	800	E	3,000	800	E	3,000	800	E	NA
BIS(CHLOROMETHYL)ETHER	542-88-1	0.000079	0.000012	E	0.0004	0.00006	E	0.0079	0.0012	E	0.04	0.006	E	0.0079	0.0012	E	0.04	0.006	E	NA
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	0.6	130	E	0.6	130	E	29	6,300	E	29	6,300	E	29	6,300	E	29	6,300	E	10
BISPHENOL A	80-05-7	170	660	E	490	1,900	E	12,000	46,000	E	12,000	46,000	E	12,000	46,000	E	12,000	46,000	E	20
BROMACIL	314-40-9	7	1.8	E	7	1.8	E	700	180	E	700	180	E	7	1.8	E	7	1.8	E	NA
BROMOBENZENE	108-86-1	[0.006] 6	[0.0047] 4.7	E	[0.006] 6	[0.0047] 4.7	E	[0.6] 600	[0.47] 470	E	[0.6] 600	[0.47] 470	E	[0.006] 6	[0.0047] 4.7	E	[0.006] 6	[0.0047] 4.7	E	NA
BROMOCHLOROMETHANE	74-97-5	9	1.6	E	9	1.6	E	900	160	E	900	160	E	9	1.6	E	9	1.6	E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

NA—The soil buffer distance option is not available for this substance

N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
BROMODICHLORO METHANE (THM)	75-27-4	8	2.7	E	8	2.7	E	800	270	E	800	270	E	8	2.7	E	8	2.7	E	NA
BROMOMETHANE	74-83-9	1	0.54	E	1	0.54	E	100	54	E	100	54	E	100	54	E	100	54	E	NA
BROMOXYNIL	1689-84-5	0.63	0.54	E	2.6	2.2	E	63	54	E	260	220	E	0.63	0.54	E	2.6	2.2	E	NA
BROMOXYNIL OCTANOATE	1689-99-2	0.63	28	E	2.6	120	E	8	360	E	8	360	E	8	360	E	8	360	E	15
BUTADIENE, 1,3-	106-99-0	0.11	0.045	E	0.45	0.19	E	11	4.5	E	45	19	E	11	4.5	E	45	19	E	NA
BUTYL ALCOHOL, N-BUTYLATE	71-36-3	350	42	E	970	120	E	10,000	4,200	E	10,000	10,000	C	3,500	420	E	9,700	1,200	E	NA
BUTYLATE	2008-41-5	40	58	E	40	58	E	4,000	5,800	E	4,000	5,800	E	40	58	E	40	58	E	30
BUTYLBENZENE, N-BUTYLBENZENE, SEC-BUTYLBENZENE, TERT-BUTYLBENZYL PHTHALATE	104-51-8	170	1,100	E	490	3,100	E	1,500	9,500	E	1,500	9,500	E	170	1,100	E	490	3,100	E	15
	135-98-8	350	820	E	970	2,300	E	1,700	4,000	E	1,700	4,000	E	350	820	E	970	2,300	E	30
	98-06-6	350	630	E	970	1,800	E	3,000	5,400	E	3,000	5,400	E	350	630	E	970	1,800	E	30
	85-68-7	34	2,900	E	140	10,000	C	270	10,000	C	270	10,000	C	270	10,000	C	270	10,000	C	10
CAPTAN	133-06-2	28	17	E	50	31	E	50	31	E	50	31	E	50	31	E	50	31	E	NA
CARBARYL	63-25-2	350	210	E	970	570	E	12,000	7,000	E	12,000	7,000	E	12,000	7,000	E	12,000	7,000	E	NA
[CARBAZOLE]	[86-74-8]	[3.3]	[21]	[E]	[14]	[89]	[E]	[120]	[760]	[E]	[120]	[760]	[E]	[3.3]	[21]	[E]	[14]	[89]	[E]	[15]
CARBOFURAN	1563-66-2	4	0.87	E	4	0.87	E	400	87	E	400	87	E	4	0.87	E	4	0.87	E	NA
CARBON DISULFIDE	75-15-0	150	130	E	620	530	E	10,000	10,000	C	10,000	10,000	C	150	130	E	620	530	E	NA
CARBON TETRACHLORIDE	56-23-5	0.5	0.26	E	0.5	0.26	E	50	26	E	50	26	E	5	2.6	E	5	2.6	E	NA
CARBOXIN	5234-68-4	70	53	E	70	53	E	7,000	5,300	E	7,000	5,300	E	70	53	E	70	53	E	NA
CHLORAMBEN	133-90-4	10	1.6	E	10	1.6	E	1,000	160	E	1,000	160	E	10	1.6	E	10	1.6	E	NA
CHLORDANE	57-74-9	0.2	49	E	0.2	49	E	5.6	1,400	E	5.6	1,400	E	5.6	1,400	E	5.6	1,400	E	10
CHLORO-1,1-DIFLUOROETHANE, 1-CHLORO-1-PROPENE, 3-(ALLYL CHLORIDE)	75-68-3	10,000	1,800	E	10,000	7,300	E	10,000	10,000	C	10,000	10,000	C	10,000	1,800	E	10,000	7,300	E	NA
	107-05-1	0.21	0.049	E	0.88	0.2	E	21	4.9	E	88	20	E	21	4.9	E	88	20	E	NA
CHLOROACETALDEHYDE	107-20-0	0.24	0.029	E	1	0.12	E	24	2.9	E	100	12	E	0.24	0.029	E	1	0.12	E	NA
CHLOROANILINE, P-CHLOROBENZENE	106-47-8	0.33	0.42	E	1.4	1.8	E	33	42	E	140	180	E	0.33	0.42	E	1.4	1.8	E	NA
	108-90-7	10	6.1	E	10	6.1	E	1,000	610	E	1,000	610	E	1,000	610	E	1,000	610	E	NA
CHLOROBENZILATE	510-15-6	0.59	3.9	E	2.5	17	E	59	390	E	250	1,700	E	590	3,900	E	1,300	8,600	E	15
CHLOROBUTANE, 1-CHLORODIBROMO METHANE (THM)	109-69-3	140	220	E	390	610	E	10,000	10,000	C	10,000	10,000	C	140	220	E	390	610	E	30
	124-48-1	8	2.5	E	8	2.5	E	800	250	E	800	250	E	800	250	E	800	250	E	NA

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All concentrations in mg/kg

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REGULATED SUBSTANCE	CASRN	Used Aquifers												Nonuse Aquifers				Soil Buffer Distance (feet)		
		TDS ≤ 2500 mg/L						TDS > 2500 mg/L						Residential		Nonresidential				
		Residential			Nonresidential			Residential			Nonresidential			Residential		Nonresidential				
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value			
CHLORODIFLUORO METHANE (THM)	75-45-6	10,000	2,800	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	2,800	E	10,000	10,000	C	NA
CHLOROETHANE	75-00-3	[2,100] 840	[450] 180	E	[8,800] 3,500	[1,900] 760	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
CHLOROFORM (THM)	67-66-3	8	2	E	8	2	E	800	200	E	800	200	E	80	20	E	80	20	E	NA
CHLORONAPHTHALENE, 2-	91-58-7	280	6,000	E	780	17,000	E	1,200	26,000	E	1,200	26,000	E	280	6,000	E	780	17,000	E	15
CHLORONITROBENZENE, P-	100-00-5	0.42	0.55	E	1.8	2.4	E	42	55	E	180	240	E	0.42	0.55	E	1.8	2.4	E	NA
CHLOROPHENOL, 2-	95-57-8	4	4.4	E	4	4.4	E	400	440	E	400	440	E	4	4.4	E	4	4.4	E	NA
CHLOROPRENE	126-99-8	0.016	0.0038	E	0.083	0.02	E	1.6	0.38	E	8.3	2	E	1.6	0.38	E	8.3	2	E	NA
[CHLOROPROPANE, 2-]	[75-29-6]	[21]	[16]	[E]	[88]	[67]	[E]	[2,100]	[1,600]	[E]	[8,800]	[6,700]	[E]	[21]	[16]	[E]	[88]	[67]	[E]	[NA]
CHLOROTHALONIL	1897-45-6	3.8	9.7	E	16	41	E	60	150	E	60	150	E	3.8	9.7	E	16	41	E	30
CHLOROTOLUENE, O-	95-49-8	10	20	E	10	20	E	1,000	2,000	E	1,000	2,000	E	10	20	E	10	20	E	30
CHLOROTOLUENE, P-	106-43-4	10	10	E	10	10	E	1,000	1,000	E	1,000	1,000	E	10	10	E	10	10	E	NA
CHLORPYRIFOS	2921-88-2	0.2	2.3	E	0.2	2.3	E	20	230	E	20	230	E	0.2	2.3	E	0.2	2.3	E	15
CHLORSULFURON	64902-72-3	[69] 170	[9.6] 24	E	[190] 490	[26] 68	E	[6,900] 17,000	[960] 2,400	E	19,000	2,600	E	[69] 170	[9.6] 24	E	[190] 490	[26] 68	E	NA
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	7	110	E	7	110	E	50	820	E	50	820	E	50	820	E	50	820	E	15
CHRYSENE	218-01-9	[0.18] 0.19	[220] 230	E	0.19	230	E	0.19	230	E	0.19	230	E	0.19	230	E	0.19	230	E	5
CRESOL(S)	1319-77-3	130	23	E	530	92	E	10,000	2,300	E	10,000	9,200	E	10,000	2,300	E	10,000	9,200	E	NA
CRESOL, 4,6-DINITRO-O-	534-52-1	0.28	0.21	E	0.78	0.59	E	28	21	E	78	59	E	28	21	E	78	59	E	NA
CRESOL, O- (2-METHYLPHENOL)	95-48-7	170	28	E	490	81	E	17,000	2,800	E	49,000	8,100	E	17,000	2,800	E	49,000	8,100	E	NA
CRESOL, M- (3-METHYLPHENOL)	108-39-4	170	34	E	490	97	E	10,000	3,400	E	10,000	9,700	E	10,000	10,000	C	10,000	10,000	C	NA
CRESOL, P- (4-METHYLPHENOL)	106-44-5	[17] 69	[4] 16	E	[49] 190	[11] 44	E	[1,700] 6,900	[400] 1,600	E	[4,900] 19,000	[1,100] 4,400	E	[17,000] 69,000	[4,000] 16,000	E	[49,000] 190,000	[11,000] 44,000	E	NA
CRESOL, P-CHLORO-M-	59-50-7	350	720	E	970	2,000	E	35,000	72,000	E	97,000	190,000	C	350	720	E	970	2,000	E	30
CROTONALDEHYDE	4170-30-3	[0.034] 3.5	[0.0043] 0.44	E	[0.14] 9.7	[0.018] 1.2	E	[3.4] 350	[0.43] 44	E	[14] 970	[1.8] 120	E	[3.4] 350	[0.43] 44	E	[14] 970	[1.8] 120	E	NA
CROTONALDEHYDE, TRANS-	123-73-9	[0.034] 3.5	[0.0043] 0.44	E	[0.14] 9.7	[0.018] 1.2	E	[3.4] 350	[0.43] 44	E	[14] 970	[1.8] 120	E	[3.4] 350	[0.43] 44	E	[14] 970	[1.8] 120	E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

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		TDS ≤ 2500 mg/L						TDS > 2500 mg/L												
		Residential			Nonresidential			Residential		Nonresidential			Residential		Nonresidential					
		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value		100 X GW MSC	Generic Value					
CUMENE (ISOPROPYL BENZENE)	98-82-8	84	600	E	350	2,500	E	5,000	10,000	C	5,000	10,000	C	5,000	10,000	C	5,000	10,000	C	15
CYANAZINE	21725-46-2	0.1	0.061	E	0.1	0.061	E	10	6.1	E	10	6.1	E	0.1	0.061	E	0.1	0.061	E	NA
CYCLOHEXANE	110-82-7	1,300	1,700	E	5,300	6,900	E	5,500	7,200	E	5,500	7,200	E	1,300	1,700	E	5,300	6,900	E	NA
CYCLOHEXANONE	108-94-1	150	41	E	620	170	E	10,000	4,100	E	10,000	10,000	C	150	41	E	620	170	E	NA
CYFLUTHRIN	68359-37-5	0.1	33	E	0.1	33	E	0.1	33	E	0.1	33	E	0.1	33	E	0.1	33	E	10
CYROMAZINE	66215-27-8	1,700	5,300	E	4,900	15,000	E	170,000	190,000	C	190,000	190,000	C	1,700	5,300	E	4,900	15,000	E	20
DDD, 4,4'-	72-54-8	0.27	30	E	1.1	120	E	16	1,800	E	16	1,800	E	16	1,800	E	16	1,800	E	10
DDE, 4,4'-	72-55-9	0.19	41	E	0.8	170	E	4	870	E	4	870	E	4	870	E	4	870	E	10
DDT, 4,4'-	50-29-3	0.19	110	E	0.55	330	E	0.55	330	E	0.55	330	E	0.55	330	E	0.55	330	E	5
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	40	10,000	C	40	10,000	C	4,000	10,000	C	4,000	10,000	C	10,000	10,000	C	10,000	10,000	C	5
DIALATE	2303-16-4	1.1	0.64	E	4.5	2.6	E	110	64	E	450	260	E	1,100	640	E	4,000	2,300	E	NA
DIAMINOTOLUENE, 2,4-	95-80-7	0.016	0.0032	E	0.068	0.014	E	1.6	0.32	E	6.8	1.4	E	16	3.2	E	68	14	E	NA
DIAZINON	333-41-5	0.1	0.14	E	0.1	0.14	E	10	14	E	10	14	E	0.1	0.14	E	0.1	0.14	E	30
DIBENZO[A,H]ANTHRACENE	53-70-3	[0.0052] 0.021	[23] 95	E	0.06	270	E	0.06	270	E	0.06	270	E	0.06	270	E	0.06	270	E	5
DIBENZOFURAN	132-64-9	3.5	90	E	9.7	250	E	350	9,000	E	450	12,000	E	350	9,000	E	450	12,000	E	15
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.02	0.0092	E	0.02	0.0092	E	2	0.92	E	2	0.92	E	2	0.92	E	2	0.92	E	NA
DIBROMOBENZENE, 1,4-	106-37-6	35	140	E	97	400	E	2,000	8,200	E	2,000	8,200	E	35	140	E	97	400	E	20
DIBROMOETHANE, 1,2-(ETHYLENE DIBROMIDE)	106-93-4	0.005	0.0012	E	0.005	0.0012	E	0.5	0.12	E	0.5	0.12	E	0.5	0.12	E	0.5	0.12	E	NA
DIBROMOMETHANE	74-95-3	0.84	0.32	E	3.5	1.4	E	84	32	E	350	140	E	84	32	E	350	140	E	NA
DIBUTYL PHTHALATE, N-DICAMBA	84-74-2	350	1,400	E	970	4,000	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	20
DICAMBA	1918-00-9	400	45	E	400	45	E	40,000	4,500	E	40,000	4,500	E	400	45	E	400	45	E	NA
DICHLOROACETIC ACID (HAA)	76-43-6	6	0.79	E	6	0.79	E	600	79	E	600	79	E	6	0.79	E	6	0.79	E	NA
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.0012	0.00067	E	0.006	0.0034	E	0.12	0.067	E	0.6	0.34	E	0.0012	0.00067	E	0.006	0.0034	E	NA
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.0012	0.00078	E	0.006	0.0039	E	0.12	0.078	E	0.6	0.39	E	0.0012	0.00078	E	0.006	0.0039	E	NA
DICHLOROBENZENE, 1,2-	95-50-1	60	59	E	60	59	E	6,000	5,900	E	6,000	5,900	E	6,000	5,900	E	6,000	5,900	E	NA
DICHLOROBENZENE, 1,3-	541-73-1	60	61	E	60	61	E	6,000	6,100	E	6,000	6,100	E	6,000	6,100	E	6,000	6,100	E	NA
DICHLOROBENZENE, P-	106-46-7	7.5	10	E	7.5	10	E	750	1,000	E	750	1,000	E	750	1,000	E	750	1,000	E	30

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

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C—Cap

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N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
DICHLOROBENZIDINE, 3,3'-	91-94-1	0.14	7.7	E	0.6	33	E	14	770	E	60	3,300	E	140	7,700	E	310	17,000	E	10
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	100	100	E	100	100	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
DICHLOROETHANE, 1,1-	75-34-3	3.1	0.75	E	16	3.9	E	310	75	E	1,600	390	E	31	7.5	E	160	39	E	NA
DICHLOROETHANE, 1,2-	107-06-2	0.5	0.1	E	0.5	0.1	E	50	10	E	50	10	E	5	1	E	5	1	E	NA
DICHLOROETHYLENE, 1,1-	75-35-4	0.7	0.19	E	0.7	0.19	E	70	19	E	70	19	E	7	1.9	E	7	1.9	E	NA
DICHLOROETHYLENE, CIS-1,2-	156-59-2	7	1.6	E	7	1.6	E	700	160	E	700	160	E	70	16	E	70	16	E	NA
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	10	2.3	E	10	2.3	E	1,000	230	E	1,000	230	E	100	23	E	100	23	E	NA
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.5	0.076	E	0.5	0.076	E	50	7.6	E	50	7.6	E	50	7.6	E	50	7.6	E	NA
DICHLOROPHENOL, 2,4-	120-83-2	2	1	E	2	1	E	200	100	E	200	100	E	2,000	1,000	E	2,000	1,000	E	NA
DICHLOROPHENOXY ACETIC ACID, 2,4- (2,4-D)	94-75-7	7	1.8	E	7	1.8	E	700	180	E	700	180	E	7,000	1,800	E	7,000	1,800	E	NA
DICHLOROPROPANE, 1,2-	78-87-5	0.5	0.11	E	0.5	0.11	E	50	11	E	50	11	E	5	1.1	E	5	1.1	E	NA
DICHLOROPROPANE, 1,3-	542-75-6	0.65	0.12	E	2.7	0.48	E	65	12	E	270	48	E	65	12	E	270	48	E	NA
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	20	5.3	E	20	5.3	E	2,000	530	E	2,000	530	E	2,000	530	E	2,000	530	E	NA
DICHLORVOS	62-73-7	0.22	0.052	E	0.94	0.22	E	22	5.2	E	94	22	E	0.22	0.052	E	0.94	0.22	E	NA
DICYCLOPENTADIENE	77-73-6	0.063	0.13	E	0.26	0.56	E	6.3	13	E	26	56	E	0.063	0.13	E	0.26	0.56	E	30
DIELDRIN	60-57-1	0.0041	0.11	E	0.017	0.47	E	0.41	11	E	1.7	47	E	4.1	110	E	17	470	E	15
DIETHYL PHTHALATE	84-66-2	2,800	880	E	7,800	2,400	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
DIFLUBENZURON	35367-38-5	20	52	E	20	52	E	20	52	E	20	52	E	20	52	E	20	52	E	20
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	60	8.2	E	60	8.2	E	6,000	820	E	6,000	820	E	60	8.2	E	60	8.2	E	NA
DIMETHOATE	60-51-5	7.6	2.9	E	21	8.1	E	760	290	E	2,100	810	E	7,600	2,900	E	21,000	8,100	E	NA
DIMETHOXYBENZIDINE, 3,3'-	119-90-4	0.041	0.14	E	0.17	0.57	E	4.1	14	E	17	57	E	41	140	E	170	570	E	20
DIMETHRIN	70-38-2	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	10
DIMETHYLAMINOAZO BENZENE, P-	60-11-7	0.014	0.037	E	0.059	0.15	E	1.4	3.7	E	5.9	15	E	14	37	E	59	150	E	20
DIMETHYLANILINE, N,N-	121-69-7	2.4	1.3	E	10	5.6	E	240	130	E	1,000	560	E	240	130	E	1,000	560	E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

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Appendix A
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B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
DIMETHYLBENZIDINE, 3,3-	119-93-7	0.0059	0.33	E	0.025	1.4	E	0.59	33	E	2.5	140	E	5.9	330	E	25	1,400	E	10
DIMETHYL METHYLPHOSPHONATE	756-79-6	10	1.2	E	10	1.2	E	1,000	120	E	1,000	120	E	10	1.2	E	10	1.2	E	NA
DIMETHYLPHENOL, 2,4-	105-67-9	69	30	E	190	83	E	6,900	3,000	E	10,000	8,300	E	10,000	10,000	C	10,000	10,000	C	NA
DINITROBENZENE, 1,3-	99-65-0	0.1	0.049	E	0.1	0.049	E	10	4.9	E	10	4.9	E	100	49	E	100	49	E	NA
DINITROPHENOL, 2,4-	51-28-5	6.9	0.78	E	19	2.1	E	690	78	E	1,900	210	E	6,900	780	E	19,000	2,100	E	NA
DINITROTOLUENE, 2,4-	121-14-2	0.21	0.05	E	0.88	0.21	E	21	5	E	88	21	E	210	50	E	880	210	E	NA
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.043	0.013	E	0.18	0.053	E	4.3	1.3	E	18	5.3	E	43	13	E	180	53	E	NA
DINOSEB	88-85-7	0.7	0.29	E	0.7	0.29	E	70	29	E	70	29	E	700	290	E	700	290	E	NA
DIOXANE, 1,4-	123-91-1	0.65	0.085	E	2.7	0.35	E	65	8.5	E	270	35	E	6.5	0.85	E	27	3.5	E	NA
DIPHENAMID	957-51-7	20	12	E	20	12	E	2,000	1,200	E	2,000	1,200	E	20	12	E	20	12	E	NA
DIPHENYLAMINE	122-39-4	350	210	E	970	570	E	30,000	18,000	E	30,000	18,000	E	30,000	18,000	E	30,000	18,000	E	NA
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.022	0.039	E	0.11	0.19	E	2.2	3.9	E	11	19	E	2.2	3.9	E	11	19	E	30
DIQUAT	[85-00-7] 2764-72-9	2	0.24	E	2	0.24	E	200	24	E	200	24	E	2	0.24	E	2	0.24	E	NA
DISULFOTON	298-04-4	0.07	0.18	E	0.07	0.18	E	7	18	E	7	18	E	70	180	E	70	180	E	20
DITHIANE, 1,4-	505-29-3	8	1.3	E	8	1.3	E	800	130	E	800	130	E	8	1.3	E	8	1.3	E	NA
DIURON	330-54-1	6.9	5.9	E	19	16	E	690	590	E	1,900	1,600	E	6.9	5.9	E	19	16	E	NA
ENDOSULFAN	115-29-7	21	110	E	48	250	E	48	250	E	48	250	E	48	250	E	48	250	E	15
ENDOSULFAN I (ALPHA)	959-98-8	21	110	E	50	260	E	50	260	E	50	260	E	21	110	E	50	260	E	15
ENDOSULFAN II (BETA)	33213-65-9	21	120	E	45	260	E	45	260	E	45	260	E	21	120	E	45	260	E	15
ENDOSULFAN SULFATE	1031-07-8	12	70	E	12	70	E	12	70	E	12	70	E	12	70	E	12	70	E	15
ENDOTHALL	145-73-3	10	4.1	E	10	4.1	E	1,000	410	E	1,000	410	E	10	4.1	E	10	4.1	E	NA
ENDRIN	72-20-8	0.2	5.5	E	0.2	5.5	E	20	550	E	20	550	E	0.2	5.5	E	0.2	5.5	E	15
EPICHLOROHYDRIN	106-89-8	0.21	0.042	E	0.88	0.17	E	21	4.2	E	88	17	E	21	4.2	E	88	17	E	NA
ETHEPHON	16672-87-0	17	2	E	49	5.7	E	1,700	200	E	4,900	570	E	17	2	E	49	5.7	E	NA
ETHION	563-12-2	1.7	37	E	4.9	110	E	85	1,900	E	85	1,900	E	1.7	37	E	4.9	110	E	15
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[42] 8.4	[5.9] 1.2	E	[180] 35	[25] 4.9	E	[4,200] 840	[590] 120	E	[10,000] 3,500	[2,500] 490	E	[4,200] 840	[590] 120	E	[10,000] 3,500	[2,500] 490	E	NA
ETHYL ACETATE	141-78-6	15	3.9	E	62	16	E	1,500	390	E	6,200	1,600	E	1,500	390	E	6,200	1,600	E	NA
ETHYL ACRYLATE	140-88-5	[1.4] 1.7	[0.54] 0.66	E	[5.7] 7	[2.2] 2.7	E	[140] 170	[54] 66	E	[570] 700	[220] 270	E	[140] 170	[54] 66	E	[570] 700	[220] 270	E	NA

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All concentrations in mg/kg

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		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
ETHYL BENZENE	100-41-4	70	46	E	70	46	E	7,000	4,600	E	7,000	4,600	E	7,000	4,600	E	7,000	4,600	E	NA
ETHYL DIPROPYL THIOCARBAMATE, S-(EPTC)	759-94-4	170	120	E	490	350	E	10,000	10,000	C	10,000	10,000	C	170	120	E	490	350	E	NA
ETHYL ETHER	60-29-7	690	190	E	1,900	530	E	10,000	10,000	C	10,000	10,000	C	690	190	E	1,900	530	E	NA
ETHYL METHACRYLATE	97-63-2	63	10	E	260	43	E	6,300	1,000	E	10,000	4,300	E	63	10	E	260	43	E	NA
ETHYLENE CHLORHYDRIN	107-07-3	69	7.9	E	190	22	E	6,900	790	E	10,000	2,200	E	69	7.9	E	190	22	E	NA
ETHYLENE GLYCOL	107-21-1	1,400	170	E	1,400	170	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
ETHYLENE THIOUREA (ETU)	96-45-7	0.28	0.031	E	0.78	0.087	E	28	3.1	E	78	8.7	E	280	31	E	780	87	E	NA
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.035	0.11	E	0.097	0.3	E	3.5	11	E	9.7	30	E	0.035	0.11	E	0.097	0.3	E	20
FENAMIPHOS	22224-92-6	0.07	0.06	E	0.07	0.06	E	7	6	E	7	6	E	0.07	0.06	E	0.07	0.06	E	NA
FENVALERATE (PYDRIN)	51630-58-1	8.5	94	E	8.5	94	E	8.5	94	E	8.5	94	E	8.5	94	E	8.5	94	E	15
FLUOMETURON	2164-17-2	9	2.5	E	9	2.5	E	900	250	E	900	250	E	9	2.5	E	9	2.5	E	NA
FLUORANTHENE	206-44-0	26	3,200	E	26	3,200	E	26	3,200	E	26	3,200	E	26	3,200	E	26	3,200	E	10
FLUORENE	86-73-7	140	2,800	E	190	3,800	E	190	3,800	E	190	3,800	E	190	3,800	E	190	3,800	E	15
FLUOROTRICHLORO METHANE (FREON 11)	75-69-4	200	87	E	200	87	E	10,000	8,700	E	10,000	8,700	E	10,000	8,700	E	10,000	8,700	E	NA
FONOFOS	944-22-9	1	2.9	E	1	2.9	E	100	290	E	100	290	E	1	2.9	E	1	2.9	E	20
FORMALDEHYDE	50-00-0	100	12	E	100	12	E	10,000	1,200	E	10,000	1,200	E	10,000	1,200	E	10,000	1,200	E	NA
FORMIC ACID	64-18-6	0.063	0.0071	E	0.26	0.029	E	6.3	0.71	E	26	2.9	E	0.63	0.071	E	2.6	0.29	E	NA
FOSETYL-AL	39148-24-8	8,700	7,700	E	24,000	21,000	E	190,000	190,000	C	190,000	190,000	C	8,700	7,700	E	24,000	21,000	E	NA
FURAN	110-00-9	3.5	1.5	E	9.7	4.2	E	350	150	E	970	420	E	350	150	E	970	420	E	NA
FURFURAL	98-01-1	1.9	0.24	E	7.8	0.99	E	190	24	E	780	99	E	1.9	0.24	E	7.8	0.99	E	NA
GLYPHOSATE	1071-83-6	70	620	E	70	620	E	7,000	62,000	E	7,000	62,000	E	70	620	E	70	620	E	15
HEPTACHLOR	76-44-8	0.04	0.68	E	0.04	0.68	E	4	68	E	4	68	E	18	310	E	18	310	E	15
HEPTACHLOR EPOXIDE	1024-57-3	0.02	1.1	E	0.02	1.1	E	2	110	E	2	110	E	20	1,100	E	20	1,100	E	10
HEXACHLOROBENZENE	118-74-1	0.1	0.96	E	0.1	0.96	E	0.6	5.8	E	0.6	5.8	E	0.6	5.8	E	0.6	5.8	E	15
HEXACHLOROBUTADIENE	87-68-3	0.84	10	E	3.5	42	E	84	1,000	E	290	3,400	E	290	3,400	E	290	3,400	E	15
HEXACHLOROCYCLOPENTADIENE	77-47-4	5	91	E	5	91	E	180	3,300	E	180	3,300	E	180	3,300	E	180	3,300	E	15

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		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential		
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
HEXACHLOROETHANE	67-72-1	0.1	0.56 E	0.1	0.56 E		10	56 E	10	56 E		10	56 E	10	56 E	15
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID	13252-13-6	0.001	N/A	0.001	N/A		0.1	N/A	0.1	N/A		0.001	N/A	0.001	N/A	NA
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID AMMONIUM SALT	62037-80-3	0.001	N/A	0.001	N/A		0.1	N/A	0.1	N/A		0.001	N/A	0.001	N/A	NA
HEXANE	110-54-3	150	1,400 E	580	5,300 E		950	8,700 E	950	8,700 E		150	1,400 E	580	5,300 E	15
HEXAZINONE	51235-04-2	40	8.5 E	40	8.5 E		4,000	850 E	4,000	850 E		40	8.5 E	40	8.5 E	NA
HEXYTHIAZOX (SAVEY)	78587-05-0	50	820 E	50	820 E		50	820 E	50	820 E		50	820 E	50	820 E	15
HMX	2691-41-0	40	4.8 E	40	4.8 E		500	60 E	500	60 E		40	4.8 E	40	4.8 E	NA
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.001	0.00011 E	0.0051	0.00057 E		0.1	0.011 E	0.51	0.057 E		0.01	0.0011 E	0.051	0.0057 E	NA
HYDROQUINONE	123-31-9	1.1	0.15 E	4.5	0.61 E		110	15 E	450	61 E		1,100	150 E	4,500	610 E	NA
INDENO[1,2,3-CD]PYRENE	193-39-5	[0.018] 0.21	[1,400] 16,000	[0.23] 2.7	[18,000] 190,000	[E] C	[1.8] 6.2	[140,000] 190,000	[E] C	6.2	190,000 C	6.2	190,000 C	6.2	190,000 C	5
IPRODIONE	36734-19-7	1.5	4.3 E	6.2	18 E		150	430 E	620	1,800 E		1.5	4.3 E	6.2	18 E	20
ISOBUTYL ALCOHOL	78-83-1	1,000	260 E	2,900	760 E		10,000	10,000 C	10,000	10,000 C		10,000	10,000 C	10,000	10,000 C	NA
ISOPHORONE	78-59-1	10	1.9 E	10	1.9 E		1,000	190 E	1,000	190 E		10,000	1,900 E	10,000	1,900 E	NA
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	70	8.1 E	70	8.1 E		7,000	810 E	7,000	810 E		70	8.1 E	70	8.1 E	NA
KEPONE	143-50-0	0.0065	0.89 E	0.027	3.7 E		0.65	89 E	2.7	370 E		6.5	890 E	27	3,700 E	10
MALATHION	121-75-5	50	170 E	50	170 E		5,000	10,000 C	5,000	10,000 C		10,000	10,000 C	10,000	10,000 C	20
MALEIC HYDRAZIDE	123-33-1	400	47 E	400	47 E		40,000	4,700 E	40,000	4,700 E		400	47 E	400	47 E	NA
MANEB	12427-38-2	1.1	0.12 E	4.5	0.51 E		110	12 E	450	51 E		1.1	0.12 E	4.5	0.51 E	NA
MERPHOS OXIDE	78-48-8	1.7	230 E	4.9	650 E		170	10,000 C	230	10,000 C		1.7	230 E	4.9	650 E	10
METHACRYLONITRILE	126-98-7	0.35	0.057 E	0.97	0.16 E		35	5.7 E	97	16 E		0.35	0.057 E	0.97	0.16 E	NA
METHAMIDOPHOS	10265-92-6	0.17	0.021 E	0.49	0.061 E		17	2.1 E	49	6.1 E		0.17	0.021 E	0.49	0.061 E	NA
METHANOL	67-56-1	4,200	500 E	10,000	2,100 E		10,000	10,000 C	10,000	10,000 C		10,000	10,000 C	10,000	10,000 C	NA
METHOMYL	16752-77-5	20	3.2 E	20	3.2 E		2,000	320 E	2,000	320 E		20	3.2 E	20	3.2 E	NA
METHOXYCHLOR	72-43-5	4	630 E	4	630 E		4.5	710 E	4.5	710 E		4.5	710 E	4.5	710 E	10
METHOXYETHANOL, 2-	109-86-4	[4.2] 1.5	[0.48] 0.17	[18] 6.2	[2] 0.7		[420] 150	[48] 17	[1,800] 620	[200] 70		[42] 15	[4.8] 1.7	[180] 62	[20] 7	NA
METHYL ACETATE	79-20-9	3,500	650 E	9,700	1,800 E		10,000	10,000 C	10,000	10,000 C		3,500	650 E	9,700	1,800 E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

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		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		E			
METHYL ACRYLATE	96-33-3	4.2	1	E	18	4.5	E	420	100	E	1,800	450	E	420	100	E	1,800	450	E	NA
METHYL CHLORIDE	74-87-3	3	0.38	E	3	0.38	E	300	38	E	300	38	E	300	38	E	300	38	E	NA
METHYL ETHYL KETONE	78-93-3	400	76	E	400	76	E	10,000	7,600	E	10,000	7,600	E	10,000	7,600	E	10,000	7,600	E	NA
METHYL HYDRAZINE	60-34-4	0.0042	0.00048	E	0.018	0.002	E	0.42	0.048	E	1.8	0.2	E	0.042	0.0048	E	0.18	0.02	E	NA
METHYL ISOBUTYL KETONE	108-10-1	[280] 630	[43] 97	E	[780] 2,600	[120] 400	E	10,000	[4,300] 9,700	E	10,000	10,000	C	10,000	[4,300] 9,700	E	10,000	10,000	C	NA
METHYL ISOCYANATE	624-83-9	0.21	0.029	E	0.88	0.12	E	21	2.9	E	88	12	E	0.21	0.029	E	0.88	0.12	E	NA
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	6.3	1.6	E	26	6.4	E	630	160	E	2,600	640	E	6.3	1.6	E	26	6.4	E	NA
METHYL METHACRYLATE	80-62-6	150	20	E	620	84	E	10,000	2,000	E	10,000	8,400	E	10,000	2,000	E	10,000	8,400	E	NA
METHYL METHANESULFONATE	66-27-3	0.66	0.082	E	2.7	0.34	E	66	8.2	E	270	34	E	0.66	0.082	E	2.7	0.34	E	NA
METHYL PARATHION	298-00-0	0.1	0.21	E	0.1	0.21	E	10	21	E	10	21	E	100	210	E	100	210	E	30
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	8.4	47	E	35	200	E	840	4,700	E	3,500	10,000	C	8.4	47	E	35	200	E	15
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	2	0.28	E	2	0.28	E	200	28	E	200	28	E	20	2.8	E	20	2.8	E	NA
METHYLCHLOROPHENOX YACETIC ACID (MCPA)	94-74-6	3	1.2	E	3	1.2	E	300	120	E	300	120	E	3,000	1,200	E	3,000	1,200	E	NA
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	0.21	1.6	E	2.7	21	E	21	160	E	270	2,100	E	0.21	1.6	E	2.7	21	E	15
METHYLNAPHTHALENE, 2-	91-57-6	0.63	25	E	2.6	100	E	63	2,500	E	260	10,000	E	0.63	25	E	2.6	100	E	15
METHYLSTYRENE, ALPHA	98-83-9	240	420	E	680	1,200	E	10,000	10,000	C	10,000	10,000	C	240	420	E	680	1,200	E	30
METOLACHLOR	51218-45-2	70	40	E	70	40	E	7,000	4,000	E	7,000	4,000	E	70	40	E	70	40	E	NA
METRIBUZIN	21087-64-9	7	2.4	E	7	2.4	E	700	240	E	700	240	E	7	2.4	E	7	2.4	E	NA
MEVINPHOS	7786-34-7	0.087	0.019	E	0.24	0.053	E	8.7	1.9	E	24	5.3	E	0.087	0.019	E	0.24	0.053	E	NA
MONOCHLOROACETIC ACID (HAA)	79-11-8	6	0.67	E	6	0.67	E	600	67	E	600	67	E	6	0.67	E	6	0.67	E	NA
NAPHTHALENE	91-20-3	10	25	E	10	25	E	1,000	2,500	E	1,000	2,500	E	1,000	2,500	E	1,000	2,500	E	30
NAPHTHYLAMINE, 1-	134-32-7	0.036	0.29	E	0.15	1.2	E	3.6	29	E	15	120	E	3.6	29	E	15	120	E	15
NAPHTHYLAMINE, 2-	91-59-8	0.036	0.012	E	0.15	0.049	E	3.6	1.2	E	15	4.9	E	36	12	E	150	49	E	NA
NAPROPAMIDE	15299-99-7	420	970	E	1,200	2,800	E	7,000	16,000	E	7,000	16,000	E	420	970	E	1,200	2,800	E	30
NITROANILINE, O-	88-74-4	0.011	0.002	E	0.044	0.0079	E	1.1	0.2	E	4.4	0.79	E	0.011	0.002	E	0.044	0.0079	E	NA
NITROANILINE, P-	100-01-6	3.3	0.49	E	14	2.1	E	330	49	E	1,400	210	E	3.3	0.49	E	14	2.1	E	NA

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All concentrations in mg/kg

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REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential		
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
NITROBENZENE	98-95-3	0.12	0.052 E	0.63	0.27 E	12	5.2 E	63	27 E	12	5.2 E	63	27 E	[C] E	NA	
NITROGUANIDINE	556-88-7	70	7.8 E	70	7.8 E	7,000	780 E	7,000	780 E	70	7.8 E	70	7.8 E	E	NA	
NITROPHENOL, 2-	88-75-5	28	5.7 E	78	16 E	2,800	570 E	7,800	1,600 E	2,800	570 E	7,800	1,600 E	E	NA	
NITROPHENOL, 4-	100-02-7	6	4.1 E	6	4.1 E	600	410 E	600	410 E	600	410 E	600	410 E	E	NA	
NITROPROPANE, 2-	79-46-9	[0.0018] 0.0084	[0.00029] 0.0014	[0.0093] 0.043	[0.0015] 0.0069	[0.18] 0.84	[0.029] 0.14	[0.93] 4.3	[0.15] 0.69	[0.018] 0.084	[0.0029] 0.014	[0.093] 0.43	[0.015] 0.069	E	NA	
NITROSODIETHYLAMINE, N-	55-18-5	0.000045	0.0000079 E	0.00058	0.0001 E	0.0045	0.00079 E	0.058	0.01 E	0.00045	0.000079 E	0.0058	0.001 E	E	NA	
NITROSODIMETHYLAMINE, N-	62-75-9	0.00014	0.000019 E	0.0018	0.00024 E	0.014	0.0019 E	0.18	0.024 E	0.0014	0.00019 E	0.018	0.0024 E	E	NA	
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	0.0031	0.0038 E	0.016	0.02 E	0.31	0.38 E	1.6	2 E	0.31	0.38 E	1.6	2 E	E	NA	
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.0025	0.00035 E	0.013	0.0018 E	0.25	0.035 E	1.3	0.18 E	0.025	0.0035 E	0.13	0.018 E	E	NA	
NITROSODIPHENYLAMINE, N-	86-30-6	1.9	3 E	9.6	15 E	190	300 E	960	1,500 E	190	300 E	960	1,500 E	E	30	
NITROSO-N-ETHYLUREA, N-	759-73-9	0.00079	0.000091 E	0.01	0.0012 E	0.079	0.0091 E	1	0.12 E	0.79	0.091 E	10	1.2 E	E	NA	
OCTYL PHTHALATE, DI-N-OXAMYL (VYDATE)	117-84-0	35	10,000 C	97	10,000 C	300	10,000 C	300	10,000 C	300	10,000 C	300	10,000 C	C	5	
23135-22-0	20	2.6 E	20	2.6 E	2,000	260 E	2,000	260 E	20	2.6 E	20	2.6 E	20	2.6 E	NA	
PARAQUAT	1910-42-5	3	120 E	3	120 E	300	12,000 E	300	12,000 E	3	120 E	3	120 E	E	15	
PARATHION	56-38-2	0.1	0.59 E	0.29	1.7 E	10	59 E	29	170 E	0.1	0.59 E	0.29	1.7 E	E	15	
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	1336-36-3	0.05	9.8 E	0.05	9.8 E	5	980 E	5	980 E	0.05	9.8 E	0.05	9.8 E	E	10	
PCB-1016 (AROCLOR)	12674-11-2	0.24	66 E	0.68	190 E	24	6,600 E	25	6,900 E	0.24	66 E	0.68	190 E	E	10	
PCB-1221 (AROCLOR)	11104-28-2	0.033	0.16 E	0.14	0.68 E	3.3	16 E	14	68 E	0.033	0.16 E	0.14	0.68 E	E	20	
PCB-1232 (AROCLOR)	11141-16-5	0.033	0.13 E	0.14	0.54 E	3.3	13 E	14	54 E	0.033	0.13 E	0.14	0.54 E	E	20	
PCB-1242 (AROCLOR)	53469-21-9	0.033	4 E	0.14	17 E	3.3	400 E	10	1,200 E	0.033	4 E	0.14	17 E	E	10	
PCB-1248 (AROCLOR)	12672-29-6	0.033	16 E	0.14	67 E	3.3	1,600 E	5.4	2,600 E	0.033	16 E	0.14	67 E	E	10	
PCB-1254 (AROCLOR)	11097-69-1	0.069	140 E	0.19	380 E	5.7	10,000 C	5.7	10,000 C	0.069	140 E	0.19	380 E	E	5	
PCB-1260 (AROCLOR)	11096-82-5	0.033	150 E	0.14	630 E	3.3	15,000 E	8	36,000 E	0.033	150 E	0.14	630 E	E	5	

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		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
PEBULATE	1114-71-2	[170] 2.4	[290] 4	E	[490] 6.8	[830] 11	E	[9,200] 240	[10,000] 400	[C] E	[9,200] 680	[10,000] 1,100	[C] E	[170] 2.4	[290] 4	E	[490] 6.8	[830] 11	E	30
PENTACHLOROENZENE	608-93-5	2.8	220	E	7.8	620	E	74	5,900	E	74	5,900	E	74	5,900	E	74	5,900	E	10
PENTACHLOROETHANE	76-01-7	0.72	3.5	E	3	15	E	72	350	E	300	1,500	E	0.72	3.5	E	3	15	E	20
PENTACHLORO NITROBENZENE	82-68-8	0.25	5	E	1	20	E	25	500	E	44	870	E	44	870	E	44	870	E	15
PENTACHLOROPHENOL	87-86-5	0.1	5	E	0.1	5	E	10	500	E	10	500	E	100	5,000	E	100	5,000	E	10
PERFLUOROBUTANE SULFONATE (PFBS)	375-73-5	[1] 0.2	N/A		[2.9] 0.2	N/A		[100] 20	N/A		[290] 20	N/A		[1] 0.2	N/A		[2.9] 0.2	N/A		NA
PERFLUOROBUTANOIC ACID (PFBA)	375-22-4	3.5	N/A		9.7	N/A		350	N/A		970	N/A		3.5	N/A		9.7	N/A		NA
PERFLUOROHEXANE SULFONATE (PFHxS)	355-46-4	0.001	N/A		0.001	N/A		0.1	N/A		0.1	N/A		0.001	N/A		0.001	N/A		NA
PERFLUOROHEXANOIC ACID (PFHxA)	307-24-4	1.7	N/A		4.9	N/A		170	N/A		490	N/A		1.7	N/A		4.9	N/A		NA
PERFLUORONONANOIC ACID (PFNA)	375-95-1	0.001	N/A		0.001	N/A		0.1	N/A		0.1	N/A		0.001	N/A		0.001	N/A		NA
PERFLUOROOCCTANE SULFONATE (PFOS)	1763-23-1	[0.007] 0.0018 0.0004	N/A		[0.007] 0.0018 0.0004	N/A		[0.7] 0.18 0.04	N/A		[0.7] 0.18 0.04	N/A		[0.007] 0.0018 0.0004	N/A		[0.007] 0.0018 0.0004	N/A		NA
PERFLUOROOCCTANOIC ACID (PFOA)	335-67-1	[0.007] 0.0014 0.0004	N/A		[0.007] 0.0014 0.0004	N/A		[0.7] 0.14 0.04	N/A		[0.7] 0.14 0.04	N/A		[0.007] 0.0014 0.0004	N/A		[0.007] 0.0014 0.0004	N/A		NA
PHENACETIN	62-44-2	30	12	E	120	46	E	3,000	1,200	E	12,000	4,600	E	30,000	12,000	E	76,000	29,000	E	NA
PHENANTHRENE	85-01-8	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	10
PHENOL	108-95-2	200	33	E	200	33	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	NA
PHENYL MERCAPTAN	108-98-5	3.5	5.3	E	9.7	15	E	350	530	E	970	1,500	E	3.5	5.3	E	9.7	15	E	30
PHENYLENEDIAMINE, M-	108-45-2	21	3	E	58	8.2	E	2,100	300	E	5,800	820	E	21,000	3,000	E	58,000	8,200	E	NA
PHENYLPHENOL, 2-	90-43-7	34	490	E	140	2,000	E	3,400	49,000	E	14,000	190,000	C	34,000	190,000	C	70,000	190,000	C	15
PHORATE	298-02-2	[0.69] 0.59	[1.5] 1.3	E	[1.9] 1.7	[4.1] 3.6	E	[69] 59	[150] 130	E	[190] 170	[410] 360	E	[0.69] 0.59	[1.5] 1.3	E	[1.9] 1.7	[4.1] 3.6	E	30
PHTHALIC ANHYDRIDE	85-44-9	4.2	1.3	E	18	5.6	E	420	130	E	1,800	560	E	420	130	E	1,800	560	C	NA
PICLORAM	1918-02-1	50	7.4	E	50	7.4	E	5,000	740	E	5,000	740	E	50	7.4	E	50	7.4	E	NA

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		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value					
POTASSIUM PERFLUOROBUTANE SULFONATE	29420-49-3	0.2	N/A		0.2	N/A		20	N/A		20	N/A		0.2	N/A		0.2	N/A		NA
PROMETON	1610-18-0	40	39 E	40	39 E		4,000	3,900 E	4,000	3,900 E		40	39 E	40	39 E		40	39 E		NA
PRONAMIDE	23950-58-5	260	160 E	730	450 E		1,500	920 E	1,500	920 E		260	160 E	730	450 E		260	160 E		NA
PROPACHLOR	1918-16-7	0.01	0.0046 E	0.01	0.0046 E		1	0.46 E	1	0.46 E		1	0.46 E	1	0.46 E		1	0.46 E		NA
PROPANIL	709-98-8	17	8.7 E	49	25 E		1,700	870 E	4,900	2,500 E		17	8.7 E	49	25 E		17	8.7 E		NA
PROPANOL, 2-(ISOPROPYL ALCOHOL)	67-63-0	42	7.3 E	180	31 E		4,200	730 E	10,000	3,100 E		42	7.3 E	180	31 E		42	7.3 E		NA
PROPAZINE	139-40-2	1	0.5 E	1	0.5 E		100	50 E	100	50 E		1	0.5 E	1	0.5 E		1	0.5 E		NA
PROPHAM	122-42-9	10	2.4 E	10	2.4 E		1,000	240 E	1,000	240 E		10	2.4 E	10	2.4 E		10	2.4 E		NA
PROPYLBENZENE, N-	103-65-1	210	400 E	880	1,700 E		5,200	9,900 E	5,200	9,900 E		210	400 E	880	1,700 E		210	400 E		30
PROPYLENE OXIDE	75-56-9	0.27	0.047 E	1.1	0.19 E		27	4.7 E	110	19 E		0.27	0.047 E	1.1	0.19 E		0.27	0.047 E		NA
PYRENE	129-00-0	13	2,200 E	13	2,200 E		13	2,200 E	13	2,200 E		13	2,200 E	13	2,200 E		13	2,200 E		10
PYRETHRUM	8003-34-7	35	4.4 E	35	4.4 E		35	4.4 E	35	4.4 E		35	4.4 E	35	4.4 E		35	4.4 E		NA
PYRIDINE	110-86-1	[3.4] 3.5	0.39 E	9.7	1.1 E		350	39 E	970	110 E		35	3.9 E	97	11 E		35	3.9 E		NA
QUINOLINE	91-22-5	0.022	0.074 E	0.091	0.31 E		2.2	7.4 E	9.1	31 E		22	74 E	91	310 E		22	74 E		20
QUIZALOFOP (ASSURE)	76578-14-8	30	47 E	30	47 E		30	47 E	30	47 E		30	47 E	30	47 E		30	47 E		30
RDX	121-82-4	0.2	0.057 E	0.2	0.057 E		20	5.7 E	20	5.7 E		0.2	0.057 E	0.2	0.057 E		0.2	0.057 E		NA
RESORCINOL	108-46-3	6,900	800 E	19,000	2,200 E		190,000	80,000 E	190,000	190,000 C		6,900	800 E	19,000	2,200 E		6,900	800 E		NA
RONNEL	299-84-3	170	270 E	490	760 E		4,000	6,200 E	4,000	6,200 E		170	270 E	490	760 E		170	270 E		30
SIMAZINE	122-34-9	0.4	0.15 E	0.4	0.15 E		40	15 E	40	15 E		0.4	0.15 E	0.4	0.15 E		0.4	0.15 E		NA
STRYCHNINE	57-24-9	1	0.81 E	2.9	2.4 E		100	81 E	290	240 E		1,000	810 E	2,900	2,400 E		1,000	810 E		NA
STYRENE	100-42-5	10	24 E	10	24 E		1,000	2,400 E	1,000	2,400 E		1,000	2,400 E	1,000	2,400 E		1,000	2,400 E		30
TEBUTHIURON	34014-18-1	50	83 E	50	83 E		5,000	8,300 E	5,000	8,300 E		50	83 E	50	83 E		50	83 E		30
TERBACIL	5902-51-2	9	2.2 E	9	2.2 E		900	220 E	900	220 E		9	2.2 E	9	2.2 E		9	2.2 E		NA
TERBUFOS	13071-79-9	0.04	0.055 E	0.04	0.055 E		4	5.5 E	4	5.5 E		0.04	0.055 E	0.04	0.055 E		0.04	0.055 E		30
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	[1] 0.1	[4.6] 0.46 E	[2.9] 0.29	[13] 1.3 E		[58] 10	[270] 46 E	[58] 29	[270] 130 E		58	270 E	58	270 E		58	270 E		20
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.000003	0.032 E	0.000003	0.032 E		0.0003	3.2 E	0.0003	3.2 E		0.0019	20 E	0.0019	20 E		0.0019	20 E		5
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	7	18 E	7	18 E		700	1,800 E	700	1,800 E		700	1,800 E	700	1,800 E		700	1,800 E		30

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

NA—The soil buffer distance option is not available for this substance

N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)				
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential						
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential						
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E	100 X GW MSC	Generic Value	E		100 X GW MSC	Generic Value	E	
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.084	0.026	E	0.43	0.13	E	8.4	2.6	E	43	13	E	8.4	2.6	E	43	13	E	NA
TETRACHLOROETHYLENE (PCE)	127-18-4	0.5	0.43	E	0.5	0.43	E	50	43	E	50	43	E	5	4.3	E	5	4.3	E	NA
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	100	1,600	E	290	4,500	E	10,000	160,000	E	18,000	190,000	C	18,000	190,000	C	18,000	190,000	C	15
TETRAETHYL LEAD	78-00-2	0.00035	0.0043	E	0.00097	0.012	E	0.035	0.43	E	0.097	1.2	E	0.35	4.3	E	0.97	12	E	15
TETRAETHYLDITHIO PYROPHOSPHATE	3689-24-5	1.7	2.5	E	4.9	7.3	E	170	250	E	490	730	E	1.7	2.5	E	4.9	7.3	E	30
TETRAHYDROFURAN	109-99-9	2.5	0.55	E	13	2.8	E	250	55	E	1,300	280	E	2.5	0.55	E	13	2.8	E	NA
THIOFANOX	39196-18-4	1	0.11	E	2.9	0.32	E	100	11	E	290	32	E	1	0.11	E	2.9	0.32	E	NA
THIRAM	137-26-8	52	140	E	150	390	E	3,000	7,800	E	3,000	7,800	E	52	140	E	150	390	E	20
TOLUENE	108-88-3	100	44	E	100	44	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	NA
TOLUIDINE, M-	108-44-1	4.1	1.9	E	17	7.8	E	410	190	E	1,700	780	E	4.1	1.9	E	17	7.8	E	NA
TOLUIDINE, O-	95-53-4	4.1	4.7	E	17	19	E	410	470	E	1,700	1,900	E	4,100	4,700	E	10,000	10,000	C	NA
TOLUIDINE, P-	106-49-0	2.2	2	E	9.1	8.3	E	220	200	E	910	830	E	2.2	2	E	9.1	8.3	E	NA
TOXAPHENE	8001-35-2	0.3	1.2	E	0.3	1.2	E	30	120	E	30	120	E	0.3	1.2	E	0.3	1.2	E	20
TRIALATE	2303-17-5	[0.091] 0.91	[0.47] 4.7	E	[0.38] 3.8	[1.9] 19	E	[9.1] 91	[47] 470	E	[38] 380	[190] 1,900	E	[0.091] 0.91	[0.47] 4.7	E	[0.38] 3.8	[1.9] 19	E	15
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	8	3.5	E	8	3.5	E	800	350	E	800	350	E	800	350	E	800	350	E	NA
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	1,100	3,400	E	4,400	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	20
TRICHLOROACETIC ACID (HAA)	76-03-9	6	0.97	E	6	0.97	E	600	97	E	600	97	E	6	0.97	E	6	0.97	E	NA
TRICHLOROBENZENE, 1,2,4-	120-82-1	7	27	E	7	27	E	700	2,700	E	700	2,700	E	700	2,700	E	700	2,700	E	20
TRICHLOROBENZENE, 1,3,5-	108-70-3	4	31	E	4	31	E	400	3,100	E	400	3,100	E	4	31	E	4	31	E	15
TRICHLOROETHANE, 1,1,1-	71-55-6	20	7.2	E	20	7.2	E	2,000	720	E	2,000	720	E	200	72	E	200	72	E	NA
TRICHLOROETHANE, 1,1,2-	79-00-5	0.5	0.15	E	0.5	0.15	E	50	15	E	50	15	E	5	1.5	E	5	1.5	E	NA
TRICHLOROETHYLENE (TCE)	79-01-6	0.5	0.17	E	0.5	0.17	E	50	17	E	50	17	E	5	1.7	E	5	1.7	E	NA

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

NA—The soil buffer distance option is not available for this substance

N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹

REGULATED SUBSTANCE	CASRN	Used Aquifers										Nonuse Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500 mg/L					TDS > 2500 mg/L					Residential		Nonresidential		
		Residential		Nonresidential			Residential		Nonresidential			Residential		Nonresidential		
		100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	100 X GW MSC	Generic Value	
TRICHLOROPHENOL, 2,4,5-	95-95-4	350	2,100 E	970	5,900 E	35,000	190,000 C	97,000	190,000 C	100,000	190,000 C	100,000	190,000 C	15		
TRICHLOROPHENOL, 2,4,6-	88-06-2	3.5	10 E	9.7	28 E	350	1,000 E	970	2,800 E	3,500	10,000 E	9,700	28,000 E	20		
TRICHLOROPHENOXY ACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	7	1.5 E	7	1.5 E	700	150 E	700	150 E	7,000	1,500 E	7,000	1,500 E	NA		
TRICHLOROPHENOXY PROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	5	22 E	5	22 E	500	2,200 E	500	2,200 E	5	22 E	5	22 E	20		
TRICHLOROPROPANE, 1,1,2-	598-77-6	17	2.9 E	49	8.4 E	1,700	290 E	4,900	840 E	17	2.9 E	49	8.4 E	NA		
TRICHLOROPROPANE, 1,2,3-	96-18-4	[4] 0.00071	[3.2] 0.00058 E	[4] 0.0091	[3.2] 0.0074 E	[400] 0.071	[320] 0.058 E	[400] 0.91	[320] 0.74 E	[400] 0.071	[320] 0.058 E	[400] 0.91	[320] 0.74 E	NA		
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.063	0.037 E	0.26	0.15 E	6.3	3.7 E	26	15 E	0.063	0.037 E	0.26	0.15 E	NA		
TRIETHYLAMINE	121-44-8	1.5	0.36 E	6.2	1.5 E	150	36 E	620	150 E	1.5	0.36 E	6.2	1.5 E	NA		
TRIETHYLENE GLYCOL	112-27-6	6,900	870 E	10,000	2,400 E	10,000	10,000 C	10,000	10,000 C	6,900	870 E	10,000	2,400 E	NA		
TRIFLURALIN	1582-09-8	1	1.9 E	1	1.9 E	100	190 E	100	190 E	1	1.9 E	1	1.9 E	30		
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	13	73 E	53	300 E	1,300	7,300 E	5,300	10,000 C	1,300	7,300 E	5,300	10,000 C	15		
TRIMETHYLBENZENE, 1,3,5-	108-67-8	13	23 E	53	93 E	1,300	2,300 E	4,900	8,600 E	13	23 E	53	93 E	30		
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.5	0.2 E	0.5	0.2 E	50	20 E	50	20 E	50	20 E	50	20 E	NA		
TRINITROTOLUENE, 2,4,6-	118-96-7	0.2	0.023 E	0.2	0.023 E	20	2.3 E	20	2.3 E	0.2	0.023 E	0.2	0.023 E	NA		
VINYL ACETATE	108-05-4	42	5 E	180	21 E	4,200	500 E	10,000	2,100 E	42	5 E	180	21 E	NA		
VINYL BROMIDE (BROMOETHENE)	593-60-2	[0.15] 0.33	[0.073] 0.16 E	[0.78] 1.7	[0.38] 0.83 E	[15] 33	[7.3] 16 E	[78] 170	[38] 83 E	[1.5] 3.3	[0.73] 1.6 E	[7.8] 17	[3.8] 8.3 E	NA		
VINYL CHLORIDE	75-01-4	0.2	0.027 E	0.2	0.027 E	20	2.7 E	20	2.7 E	2	0.27 E	2	0.27 E	NA		
WARFARIN	81-81-2	1	2.4 E	2.9	6.9 E	100	240 E	290	690 E	1,000	2,400 E	1,700	4,100 E	30		
XYLENES (TOTAL)	1330-20-7	1,000	990 E	1,000	990 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	NA		
ZINEB	12122-67-7	170	27 E	490	78 E	1,000	160 E	1,000	160 E	170	27 E	490	78 E	NA		

¹ For other options see § 250.308 (relating to soil to groundwater pathway numeric values).

All concentrations in mg/kg

E—Number calculated by the soil to groundwater equation in § 250.308

C—Cap

NA—The soil buffer distance option is not available for this substance

N/A—Soil to groundwater values cannot be calculated for these compounds

Appendix A
Table 4—Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	CASRN	Residential MSC 0—15 feet		Nonresidential MSCs			
				Surface Soil 0—2 feet		Subsurface Soil 2—15 feet	
ALUMINUM	7429-90-5	190,000	C	190,000	C	190,000	C
ANTIMONY	7440-36-0	88	G	1,300	G	190,000	C
ARSENIC	7440-38-2	12	G	61	G	190,000	C
BARIUM AND COMPOUNDS	7440-39-3	44,000	G	190,000	C	190,000	C
BERYLLIUM	7440-41-7	440	G	6,400	G	190,000	C
BORON AND COMPOUNDS	7440-42-8	44,000	G	190,000	C	190,000	C
CADMIUM	7440-43-9	[110] <u>22</u>	G	[1,600] <u>320</u>	G	190,000	C
CHROMIUM III	16065-83-1	190,000	C	190,000	C	190,000	C
CHROMIUM VI	18540-29-9	27	G	570	G	150,000	N
COBALT	7440-48-4	66	G	960	G	190,000	N
COPPER	7440-50-8	7,200	G	100,000	G	190,000	C
CYANIDE, FREE	57-12-5	[130] <u>140</u>	G	[1,900] <u>2,000</u>	G	190,000	C
FLUORIDE	16984-48-8	8,800	G	130,000	G	190,000	C
IRON	7439-89-6	150,000	G	190,000	C	190,000	C
LEAD	7439-92-1	[500] <u>200</u>	[U] †	[1,000] <u>1,100</u>	[S] A	190,000	C
LITHIUM	7439-93-2	440	G	6,400	G	190,000	C
MANGANESE	7439-96-5	31,000	G	190,000	C	190,000	C
MERCURY	7439-97-6	35	G	510	G	190,000	C
MOLYBDENUM	7439-98-7	1,100	G	16,000	G	190,000	C
NICKEL	7440-02-0	4,400	G	64,000	G	190,000	C
PERCHLORATE	7790-98-9	150	G	2,200	G	190,000	C
SELENIUM	7782-49-2	1,100	G	16,000	G	190,000	C
SILVER	7440-22-4	1,100	G	16,000	G	190,000	C
STRONTIUM	7440-24-6	130,000	G	190,000	C	190,000	C
THALLIUM	7440-28-0	2.2	G	32	G	190,000	C
TIN	7440-31-5	130,000	G	190,000	C	190,000	C
VANADIUM	7440-62-2	1,100	G	16,000	G	190,000	C
ZINC	7440-66-6	66,000	G	190,000	C	190,000	C

All concentrations in mg/kg

G—Ingestion

N—Inhalation

C—Cap

[U—UBK Model]

[S—SEGH Model]

I—IEUBK Model

A—ALM Model

Appendix A
Table 5—Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo (mg/kg-d) ¹	RfCi (mg/m ³)	IUR (µg/m ³) ¹	Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference ¹	TF Vol from Surface Soil	TF Vol from Subsurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K) (yr ⁻¹)				
ACENAPHTHENE	83-32-9	0.06	I			4900	X	3.8	1,5,6	17220	20833		279	1.24				
ACENAPHTHYLENE	208-96-8	0.06	S ¹			4500	X	16.1	5,6,7	16493	19776		280	2.11				
ACEPHATE	30560-19-1	0.0012	O			3		818000	6				340					
ACETALDEHYDE	75-07-0				0.009	I		0.0000022	I	4.1	X	1000000	1	13010	14945	X	20	
ACETONE	67-64-1	0.9	I		[31]	[D]		0.31	X	1000000	1	13007	14942	X	56	18.07		
ACETONITRILE	75-05-8				0.06	I		0.5	X	1000000	1	13020	14958	X	82	4.50		
ACETOPHENONE	98-86-2	0.1	I			170		5500	1			X	203					
ACETYLAMINO-FLUORENE, 2- (2AAF)	53-96-3			3.8	C			1600		10.13	7		303	0.69				
ACROLEIN	107-02-8	0.0005	I		0.00002	I		0.56	X	208000	1,2,4	13012	14948	X	53	4.50		
ACRYLAMIDE	79-06-1	0.002	I	0.5	I	0.006	I	0.0001	I	25	X	2151000	4	12981	14906		193	
ACRYLIC ACID	79-10-7	0.5	I		[0.001]	[I]		29	X	1000000	2	12978	14902	X	141	1.39		
ACRYLONITRILE	107-13-1	[0.04]	[0.01]	D	0.54	I		0.000068	I	11	X	73500	1	13004	14939	X	77	5.50
ALACHLOR	15972-60-8	0.01	I	0.056	C			110		140	2		378					
ALDICARB	116-06-3	0.001	I			22		6000	2				287	0.40				
ALDICARB SULFONE	1646-88-4	0.001	I			10		8000	5				317					
ALDICARB SULFOXIDE	1646-87-3	0.001	M			0.22		330000	5				307					
ALDRIN	309-00-2	0.00003	I	17	I			0.0049	I	48000		0.02	4,5,6	330	0.22			
ALLYL ALCOHOL	107-18-6	[0.005]	[I]		0.0001	X		3.2	X	1000000	2	13003	14937	X	97	18.07		
AMETRYN	834-12-8	0.009	I			389		185	5				345					
AMINOBIIPHENYL, 4-	92-67-1			21	C			0.006	C	110		5	302	18.07				
AMITROLE	61-82-5			0.94	C			0.00027	C	120		4	258	0.69				
AMMONIA	7664-41-7	[0.85]	[H]		0.5	I		3	X	310000	2,5,7	13098	15059	X	-33			
AMMONIUM SULFAMATE	7773-06-0	0.2	I			3		2160000	10				603					
ANILINE	62-53-3	0.007	P	0.0057	I	0.001	I	0.0000016	C	190	X	33800	1	12959	14876	X	184	
ANTHRACENE	120-12-7	0.3	I			21000	X	0.066	1,5,6,7,8,9	30838	44562		340	0.28				
ATRAZINE	1912-24-9	[0.035]	[I]	0.23	C			130		70	2,4,5		313					
AZINPHOS-METHYL (GUTHION)	86-50-0	0.0015	O		0.01	D		407.4		31.5	1, 2		421					
BAYGON (PROPOXUR)	114-26-1	0.004	I			31		2000	2,4,5				decomp.	4.50				
BENOMYL	17804-35-2	0.05	I	0.0024	O			1,900		2	5		520					
BENTAZON	25057-89-0	0.03	I			13		500	2				415					
BENZENE	71-43-2	0.004	I	0.055	I	0.03	I	0.0000078	I	58	X	1780.5	1,2,3,4	13053	15000	X	81	0.35
BENZIDINE	92-87-5	0.003	I	230	I			0.067	I	530,000		520	1,2,4	400	15.81			
BENZO[A]ANTHRACENE	56-55-3			[0.7]	[X]			[0.00011]	[C]	350000		0.011	1,5,6	438	0.19			
BENZO[A]PYRENE	50-32-8	0.0003	I	1	I	0.000002	I	0.0006	I	910000		0.0038	1,5,6	495	0.24			

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A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo (mg/kg-d) ¹	RfCi (mg/m ³)	IUR (µg/m ³) ¹	Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference ¹	TF Vol from Surface Soil	TF Vol from Subsurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K) (yr ¹)				
BENZO[B]FLUORANTHENE	205-99-2		[1.2] 0.1	[C] R	[0.00011] 0.00006	[C] R	550000	0.0012	5,6,7				357	0.21				
BENZO[GHI]PERYLENE	191-24-2	0.06	S ¹			2800000		0.00026	1,5,6				500	0.19				
BENZO[K]FLUORANTHENE	207-08-9		[1.2] 0.01	[C] R	[0.00011] 0.00006	[C] R	4400000	0.00055	5,6,7				480	0.06				
BENZOIC ACID	65-85-0	4	I			32	X	2700	2,3,4,5	12985	14913		249					
BENZOTRICHLORIDE	98-07-7		13	I		920	X	53	1,5,13	13494	15606	X	221	121413.60				
BENZYL ALCOHOL	100-51-6	0.1	P			100		40000	1,2,3			X	205					
BENZYL CHLORIDE	100-44-7	0.002	P	0.17	I	0.001	P	0.000049	C	190	X	493	1	12940	14846	X	179	20.90
BETA PROPIOLACTONE	57-57-8		14	C		0.004	C	4	X	370000	2	13008	14937	X	162	0.01		
BHC, ALPHA	319-84-6	0.008	D	6.3	I			0.0018	I	1800		1.7	4,5,6,7		288	0.94		
BHC, BETA-	319-85-7		1.8	I		0.00053	I	2300		0.1	6		304	1.02				
BHC, GAMMA (LINDANE)	58-89-9	[0.0003] 0.00001	[I] D ²	1.1	C			0.00031	C	1400		7.3	4,5,6		323	1.05		
BIPHENYL, 1,1-	92-52-4	[0.05] 0.5	I	0.008	I	0.0004	X			1,700	X	7.2	1	14027	16325		255	18.07
BIS(2-CHLORO ETHOXY)METHANE	111-91-1	0.003	P			61		100500	4,6,7,9,10,11			X	218					
BIS(2-CHLOROETHYL)ETHER	111-44-4		1.1	I		0.00033	I	76	X	10200	1,4,5	12942	14849	X	179	0.69		
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	0.04	I	[0.07]	[H]	[0.00001]	[H]	62	X	1700	5	12947	14856	X	189	0.69		
BIS(CHLOROMETHYL)ETHER	542-88-1		220	I		0.062	I	16	X	22000	6	12992	14922	X	105	57270.57		
BIS[2-ETHYLHEXYL]PHTHALATE	117-81-7	0.02	I	0.014	I			0.0000024	C	87000		0.285	4,5,6		X	384	0.65	
BISPHENOL A	80-05-7	0.05	I			1,500		120	4				220	0.69				
BROMACIL	314-40-9	0.1	M			58		815	2				421					
BROMOBENZENE	108-86-1	0.008	I		0.06	I		268	X	445	1,2	12954	14866	X	156.1			
BROMOCHLOROMETHANE	74-97-5	0.01	M		0.04	X		27	X	16700	4	13007	14942	X	68			
BROMODICHLOROMETHANE	75-27-4	[0.02] 0.008	[I] P ²	0.062	I			0.000037	C	93	X	4500	6	12984	14910	X	87	
BROMOMETHANE	74-83-9	0.0014	I		0.005	I		170	X	17500	2	13039	14981	X	4	6.66		
BROMOXYNIL	1689-84-5	0.015	O	0.103	O			300		130	2		329					
BROMOXYNIL OCTANOATE	1689-99-2	0.015	O	0.103	O			18,000		0.08	12		414	5.75				
BUTADIENE, 1,3-	106-99-0		0.6	C	0.002	I		0.00003	I	120	X	735	1	13115	15041	X	-4.5	4.50
BUTYL ALCOHOL, N-	71-36-3	0.1	I			3.2	X	74000	1	12998	14930	X	118	4.68				
BUTYLATE	2008-41-5	0.05	I			540	X	45	2	13430	15519	X	138					
BUTYLBENZENE, N-	104-51-8	0.05	P			2,500	X	15	1,6,7	12943	14851	X	183					
BUTYLBENZENE, SEC-	135-98-8	0.1	X			890	X	17	1,6,7	12983	14910	X	174					
BUTYLBENZENE, TERT-	98-06-6	0.1	X			680	X	30	1,6,7	12979	14904	X	169					
BUTYLBENZYL PHTHALATE	85-68-7	0.2	I	0.0019	P			34000		2.69	4,5,6		X	370	1.39			
CAPTAN	133-06-2	0.13	I	0.0023	C			0.00000066	C	200		0.5	4		259	589.39		
CARBARYL	63-25-2	0.1	I			190		120	2,4,5				315	4.22				

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[CARBAZOLE]	[86-74-8]		[0.02] [H]			[2,500]		[1.2]	[1,5,6]				[355]					
CARBOFURAN	1563-66-2	0.005	I			43		700	2				311					
CARBON DISULFIDE	75-15-0	0.1	I		0.7	I		300	X	2100	1,2,3	13022	14961	X	46			
CARBON TETRACHLORIDE	56-23-5	0.004	I	0.07	I	0.1	I	0.000006	I	160	X	795	1,2,3	13117	15083	X	77	0.07
CARBOXIN	5234-68-4	0.1	I					260		170		5,6,8			407			
CHLORAMBEN	133-90-4	0.015	I					20		700	2				210			
CHLORDANE	57-74-9	0.0005	I	0.35	I	0.0007	I	0.0001	I	98000		0.056	4,5,7		351	0.09		
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3				50	I		22	X	1400	4	13117	15041	X	-9			
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1			0.021	C	0.001	I	0.000006	C	48	X	3300	1,3,5,7,10	13142	15116	X	45	18.07
CHLOROACETALDEHYDE	107-20-0			0.27	X			3.2	X	1000000	9	13004	14938	X	85			
CHLOROACETOPHENONE, 2-	532-27-4				0.00003	I		76		1100	3				247	4.50		
CHLOROANILINE, P-	106-47-8	[0.004] 0.0005	[I] P²	0.2	P			460	X	3900	1	13139	15127		232			
CHLOROBENZENE	108-90-7	0.02	I		0.05	P		200	X	490	3	12992	14922	X	132	0.84		
CHLOROBENZILATE	510-15-6	0.02	I	0.11	C			0.000031	C	2600		13	4		415	3.60		
CHLOROBUTANE, 1-	109-69-3	0.04	P					580	X	680	1,2,3,4	13007	14942	X	79			
CHLORODIBROMOMETHANE	124-48-1	0.02	I	0.084	I			83	X	4200	4,6,7,9	12973	14895	X	116	1.39		
CHLORODIFLUOROMETHANE	75-45-6				50	I		59	X	2899	4	13141	15113	X	-41			
CHLOROETHANE	75-00-3				[10] 4	[I] P²		42	X	5700	1	13101	15038	X	12	4.50		
CHLOROFORM	67-66-3	0.01	I	0.031	C	0.3	C	0.000023	I	56	X	8000	1,2,3	13044	14988	X	61	0.01
CHLORONAPHTHALENE, 2-	91-58-7	0.08	I					8500	X	11.7	1	19021	23532		256			
CHLORONITROBENZENE, P-	100-00-5	0.0007	P	0.06	P	0.002	P	480	X	220	1	13190	15196		242			
CHLOROPHENOL, 2-	95-57-8	0.005	I					400	X	24000	1,3,4	13053	15009	X	175			
CHLOROPRENE	126-99-8	[0.02] [H]			0.02	I		0.0003	I	50	X	1736	9	13116	15075	X	59	0.69
[CHLOROPROPANE, 2-]	[75-29-6]				[0.1001] [H]			[260] [X]	[3100]	[1,3,5]	[13055]	[15002]	[X]	[47]				
CHLOROTHALONIL	1897-45-6	0.015	I	0.017	C			980		0.6	2				350			
CHLOROTOLUENE, O-	95-49-8	0.02	I					760	X	422	1,4,5	12941	14848	X	159			
CHLOROTOLUENE, P-	106-43-4	0.02	X					375	X	106	12	12961	14877	X	162			
CHLORPYRIFOS	2921-88-2	0.001	D					4600		1.12	2,4,6,7				377			
CHLORSULFURON	64902-72-3	[0.02] 0.05	O					11		192	2,5,6,8,9				531			
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	0.01	I					6,500		0.5	2,5,7				360	1.37		
CHRYSENE	218-01-9			[0.12] 0.001	[C] R			[0.000011] 0.0000006	[C] R	490000		0.0019	1		448	0.13		
CRESOL(S)	1319-77-3	0.1	D		0.06	C		25	X	20000	2	12976	14899	X	139	5.16		
CRESOL, DINITRO-O-, 4,6-	534-52-1	0.00008	X					257	X	150	4	13025	14970		312	6.02		
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	0.05	I					22	X	2500	3,5,6	12974	14896		191	18.07		

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CRESOL, M (METHYLPHENOL, 3-)	108-39-4	0.05	I			35		2500	2			X	202	5.16				
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	[0.005] 0.02	[H] P			49		22000	6				202	9.03				
CRESOL, P-CHLORO-M-	59-50-7	0.1	X			780		3846	2				235					
CROTONALDEHYDE	4170-30-3	0.001	S ²	[1.9]	[S ²]	5.6	X	180000	3	12998	14931	X	104	18.07				
CROTONALDEHYDE, TRANS-	123-73-9	0.001	P	[1.9]	[H]	6.1	X	156000	1	13006	14940	X	104	18.07				
CUMENE (ISOPROPYL BENZENE)	98-82-8	0.1	I			0.4	I	2800	X	50	1,5,6	12940	14846	X	152	15.81		
CYANAZINE	21725-46-2	0.002	[H] M	[0.84]	[H]			199		171	2,5			369				
CYCLOHEXANE	110-82-7					6	I	479	X	55	1,2,4,5,6	13140	15112	X	81			
CYCLOHEXANONE	108-94-1	5	I			0.7	P	66	X	36500	1,2,4,5	12949	14858	X	157			
CYFLUTHRIN	68359-37-5	0.025	I					130,000		0.001	2			448				
CYROMAZINE	66215-27-8	0.5	O					1,200		11000	12			222				
DDD, 4,4'-	72-54-8	[0.003] 0.0005	[X] D	0.24	I			0.000069	C	44000	0.16	5,6,7		350	0.02			
DDE, 4,4'-	72-55-9	[0.0003] 0.0005	[X] D	0.34	I			0.000097	C	87000	0.04	5		348	0.02			
DDT, 4,4'-	50-29-3	0.0005	I	0.34	I			0.000097	I	240000	0.0055	5,6,7		260	0.02			
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	0.6	I	0.0012	I			47,000,000		200	5		X	214	4.50			
DIALATE	2303-16-4			0.061	H			190		40	2,4,6,8		X	328	1.39			
DIAMINOTOLUENE, 2,4-	95-80-7			4	C			0.0011	C	36	7470	4		292	0.69			
DIAZINON	333-41-5	0.0007	D					500		50	2,4,6,8		X	306				
DIBENZO[A,H]ANTHRACENE	53-70-3			[4.1] 1	[C] R			[0.0012] 0.0006	[C] R	1800000	0.0006	1,5,6		524	0.13			
DIBENZOFURAN	132-64-9	0.001	X					10233	X	4.48	1,6,7,9	23885	31445		287	7.23		
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.0002	P	0.8	P	0.0002	I	0.006	P	140	1000	4	12946	14856	X	196	0.69	
DIBROMOBENZENE, 1,4-	106-37-6	0.01	I					1,600		20	1			220				
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.009	I	2	I	0.009	I	0.0006	I	54	X	4150	1,2,3,5	12972	14893	X	131	2.11
DIBROMOMETHANE	74-95-3	[0.01]	[H]			0.004	X			110	X	11400	1	12948	14858	X	96	4.50
DIBUTYL PHTHALATE, N-	84-74-2	0.1	I					1600		400	1,2,3		X	340	11.00			
DICAMBA	1918-00-9	0.03	I					0.27		5600	4,5,6,8,10			329				
DICHLOROACETIC ACID	76-43-6	0.004	I	0.05	I			8.1	X	1000000	1	12994	14924	X	194			
DICHLORO-2-BUTENE, 1,4-	764-41-0							0.0042	P	180	X	850	9	12943	14851	X	156	
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6							0.0042	P	215	X	850	9	12940	14847	X	155	
DICHLOROBENZENE, 1,2-	95-50-1	0.09	I			[0.2]	[H]			350	X	147	1,4,5,6,7	12946	14855	X	180	0.69
DICHLOROBENZENE, 1,3-	541-73-1	0.09	M					360	X	106	1	12942	14849	X	173	0.69		
DICHLOROBENZENE, P-	106-46-7	0.07	D	0.0054	C	0.8	I	0.000011	C	510	X	82.9	1	12943	14850		174	0.69
DICHLOROBENZIDINE, 3,3'-	91-94-1			0.45	I			0.00034	C	22000	3.11	4,5,6		368	0.69			

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DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	0.2	I		0.1	X		360	X	280	1	13115	15041	X	-30	0.69		
DICHLOROETHANE, 1,1-	75-34-3	0.2	P	0.0057	C	[0.5]	[H]	0.000016	C	52	X	5000	2	13051	14998	X	57	0.16
DICHLOROETHANE, 1,2-	107-06-2	0.006	X	0.091	I	0.007	P	0.000026	I	38	X	8412	1,2,3,4	13010	14945	X	83	0.07
DICHLOROETHYLENE, 1,1-	75-35-4	0.05	I			0.2	I			65	X	2500	1,4,5	13145	15119	X	32	0.19
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.002	I			0.04	P			49	X	3500	1	13037	14979	X	60	0.01
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	0.02	I			0.04	P			47	X	6300	1	13053	15000	X	48	0.01
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.006	I	0.002	I	0.6	I	0.0000001	I	16	X	20000	1,2,3	13071	15023	X	40	4.50
DICHLOROPHENOL, 2,4-	120-83-2	0.003	I					160		4500	1						210	5.88
DICHLOROPHENOXYACETIC ACID, 2,4-(2,4-D)	94-75-7	0.01	I					59		677	4,5,6,7,10						215	1.39
DICHLOROPROPANE, 1,2-	78-87-5	0.04	P	0.037	P	0.004	I	[0.0037]	P	47	X	2700	1,3,4	13016	14954	X	96	0.10
DICHLOROPROPENE, 1,3-	542-75-6	0.03	I	0.1	I	0.02	I	0.000004	I	27	X	2700	6	13038	14981	X	108	22.38
DICHLOROPROPIONIC ACID, 2,2-(DALAPON)	75-99-0	0.03	I					62	X	500000	5	12949	14860	X			190	2.11
DICHLORVOS	62-73-7	0.0005	I	0.29	I	0.0005	I	0.000083	C	50		10000	2,4,5			X	234	
DICYCLOPENTADIENE	77-73-6	0.008	P			0.0003	X	810	X	40	5	12957	14870				167	
DIELDRIN	60-57-1	0.00005	I	16	I			0.0046	I	11000		0.17	4,5,6				385	0.12
DIETHANOLAMINE	111-42-2	0.002	P			0.0002	P	4		1000000	2,3,9					X	269	
DIETHYL PHTHALATE	84-66-2	0.8	I					81		1080	4,5,6					X	298	2.25
DIFLUBENZURON	35367-38-5	0.02	I					1,000		0.2	2						201	
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	0.08	I					10	X	160000	9	12978	14903	X			190	
DIMETHOATE	60-51-5	0.0022	O					110		25000	4						361	2.26
DIMETHOXYBENZIDINE, 3,3-	119-90-4			1.6	P			1,300		60	9						331	0.69
DIMETHRIN	70-38-2	0.3	M					27,000		0.036	13						353	
DIMETHYLAMINOAZOBENZENE, P-	60-11-7			4.6	C			0.0013	C	1000		13.6	7				335	4.50
DIMETHYLANILINE, N,N-	121-69-7	0.002	I	0.027	P			180	X	1200	5,6,7,9	12944	14852	X			192	0.69
DIMETHYLBENZIDINE, 3,3-	119-93-7			11	P			22,000		1300	10						300	18.07
DIMETHYL METHYLPHOSPHONATE	756-79-6	0.06	P	0.0017	P			5	X	1000000	14	12998	14930	X			181	
DIMETHYLPHENOL, 2,4-	105-67-9	0.02	I					130		7869	1,4,6,7					X	211	18.07
DINITROBENZENE, 1,3-	99-65-0	0.0001	I					150		523	3,5,6,7						291	0.69
DINITROPHENOL, 2,4-	51-28-5	0.002	I					0.79		5600	2,4,5,6,7						332	0.48
DINITROTOLUENE, 2,4-	121-14-2	0.002	I	0.31	C			0.000089	C	51		270	4,5,6				300	0.69
DINITROTOLUENE, 2,6-(2,6-DNT)	606-20-2	0.0003	X	1.5	P			74		200	6						300	0.69
DINOSEB	88-85-7	0.001	I					120		50	5						223	1.03
DIOXANE, 1,4-	123-91-1	0.03	I	0.1	I	0.03	I	0.000005	I	7.8	X	1000000	5	12996	14928	X	101	0.69
DIPHENAMID	957-51-7	0.03	I					200		260	5						210	

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DIPHENYLAMINE	122-39-4	0.1	O			190		300	3				302	4.50				
DIPHENYLHYDRAZINE, 1,2-DIQUAT	122-66-7			0.8	I			0.00022	I	660	X	0.252	6	13375	15446	309	0.69	
	[85-00-7] 2764-72-9	0.0022	I			2.6		700000	5				355					
DISULFOTON	298-04-4	0.00004	I			1000		25	4,5,6			X	332	6.02				
DITHIANE, 1,4-DIURON	505-29-3	0.01	I			22.7	X	3000	15	12976	14899		199					
	330-54-1	0.002	I			300		42	2,4,5				354					
ENDOSULFAN	115-29-7	0.006	I			2,000		0.48	4				401	2.78				
ENDOSULFAN I (ALPHA)	959-98-8	0.006	S ³			2000		0.5	6				401					
ENDOSULFAN II (BETA)	33213-65-9	0.006	S ³			2300		0.45	6				390					
ENDOSULFAN SULFATE	1031-07-8	0.006	S ³			2300		0.117	7,9				409					
ENDOTHALL	145-73-3	0.02	I			120		100000	2				350					
ENDRIN	72-20-8	0.0003	I			11000		0.23	4,6,7,9				245					
EPICHLOROHYDRIN	106-89-8	0.006	P	0.0099	I	0.001	I	0.0000012	I	35	X	65800	1,3,4	12972	14893	X	116	4.50
ETHEPHON	16672-87-0	0.005	I					2	1240000	12			201					
ETHION	563-12-2	0.0005	I			8700		0.85	4,6,9,10			X	415					
ETHOXYETHANOL, 2- (EGEE)	110-80-5	0.09	P			[0.2] 0.04	[I] P²	12	X	1000000	2	13100	15040	X	136	4.50		
ETHYL ACETATE	141-78-6	[0.9] 0.7	[I] P²			0.07	P	59	X	80800	1,2,3,4,5,6	12963	14881	X	77	18.07		
ETHYL ACRYLATE	140-88-5	0.005	P	[0.048]	[H]	0.008	P	110	X	15000	1,2,6	12951	14863	X	100	18.07		
ETHYL BENZENE	100-41-4	[0.1] 0.05	[I] P²	0.011	C	1	I	0.0000025	C	220	X	161	1,3,4	13004	15000	X	136	1.11
ETHYL DIPROPYLTHIOCARBAMATE, S-(EPTC)	759-94-4	0.05	O			240	X	365	2	13056	15014	X	127					
ETHYL ETHER	60-29-7	0.2	I			68	X	60400	1	12982	14908	X	35					
ETHYL METHACRYLATE	97-63-2	[0.09]	[H]			0.3	P	22	X	4635.5	9,10	12991	14921	X	117			
ETHYLENE CHLORHYDRIN	107-07-3	0.02	P			1	X	1000000	9	13006	14941	X	128					
ETHYLENE GLYCOL	107-21-1	[2] 0.8	[I] D²			0.4	C	4.4	X	1000000	2	13004	14938	X	198	10.54		
ETHYLENE THIOUREA (ETU)	96-45-7	0.00008	I	0.045	C	0.000013	C	0.23	20000	2			347	4.50				
ETHYL P-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.00001	I			1,200		3.1	4				215					
FENAMIPHOS	22224-92-6	0.00025	I			300		329	2				390					
FENVALERATE (PYDRIN)	51630-58-1	0.025	I			4,400		0.085	5			X	300					
FLUOMETURON	2164-17-2	0.013	I			68		97.5	2,5,6,8				318					
FLUORANTHENE	206-44-0	0.04	I			49000		0.26	1,5,6				375	0.29				
FLUORENE	86-73-7	0.04	I			7900	X	1.9	1	20155	25294		298	2.11				

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FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	0.3	I			[0.7]	[H]			130	X	1090	1,4,5,6	13107	15060	X	24	0.35
FONOFOS	944-22-9	0.002	I							1100		13	5,6,8			X	324	
FORMALDEHYDE	50-00-0	0.2	I	0.021	C	0.009	C	0.000013	I	3.6	X	55000	1	13046	14990	X	-21	18.07
FORMIC ACID	64-18-6	0.9	P			0.0003	X			0.54	X	1000000	2	12940	14846	X	101	18.07
FOSETYL-AL	39148-24-8	2.5	O							310		120000	2				464	
FURAN	110-00-9	0.001	I							130	X	10000	1	13019	14956	X	31	2.25
FURFURAL	98-01-1	0.003	I	0.0349	O			[0.05]	[H]	6.3	X	91000	1,2,3	12998	14930	X	162	
GLYPHOSATE	1071-83-6	0.1	I							3500		12000	1,5,6				417	
HEPTACHLOR	76-44-8	[0.0005] 0.0001	[I] D ²	4.5	I			0.0013	I	6800		0.18	4,6,7				310	46.84
HEPTACHLOR EPOXIDE	1024-57-3	0.000013	I	9.1	I			0.0026	I	21000		0.311	4,6,7,9				341	0.23
HEXACHLOROBENZENE	118-74-1	[0.0008] 0.00001	[I] P ²	1.6	I			0.00046	I	3800		0.006	1,4,5				319	0.06
HEXACHLOROBUTADIENE	87-68-3	0.001	P	0.078	I			0.000022	I	4700		2.89	4,5,6,7			X	215	0.69
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.006	I			0.0002	I			7200		1.8	5,6,7			X	239	4.50
HEXACHLOROETHANE	67-72-1	0.0007	I	0.04	I	0.03	I	0.000011	C	2200	X	50	1	14825	17421		187	0.69
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID	13252-13-6	0.000003	M							12	X	751000	23	12974	14896	X	129	
HEXAFLUOROPROPYLENE OXIDE (HFPO) DIMER ACID AMMONIUM SALT (GEN-X)	62037-80-3	0.000003	M							12		739000	23			X	108	
HEXANE	110-54-3	[0.06]	[H]			0.7	I			3600	X	9.5	1,5,6	13105	15056	X	69	
HEXAZINONE	51235-04-2	0.033	I							41		330000	1,2				408	
HEXYTHIAZOX (SAVEY)	78587-05-0	0.025	I							6,500		0.5	2				539	
HMX	2691-41-0	0.05	I							4		5	16				436	
HYDRAZINE/HYDRAZINE SULFATE	302-01-2			3	I	0.00003	P	0.0049	I	0.0053	X	1000000	2	13026	14966	X	114	18.07
HYDROQUINONE	123-31-9	0.04	P	0.06	P					10		70000	2,3,5				285	18.07
INDENO[1,2,3-CD]PYRENE	193-39-5			[1.2] 0.1	[C] R			[0.00011] 0.00006	[C] R	31000000		0.062	5				536	0.17
IPIODIONE	36734-19-7	0.04	I	0.0439	O					1,100		13	2				545	
ISOBUTYL ALCOHOL	78-83-1	0.3	I							60	X	81000	1,2,3,4,5	12954	14866	X	108	17.57
ISOPHORONE	78-59-1	0.2	I	0.00095	I		2	C		31		12000	2,4,5			X	215	4.5
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	0.1	I							1.84		50000	13			X	230	
KEPONE	143-50-0	0.0003	I	10	I			0.0046	C	55000		7.6	4				350	0.17
MALATHION	121-75-5	0.02	I							1300		143	4			X	351	2.46
MALEIC HYDRAZIDE	123-33-1	0.5	I							2.8		6000	4				260	
MANEB	12427-38-2	0.005	I	0.0601	O					1		23	9,13				351	
MERPHOS OXIDE	78-48-8	0.0005	D							53,000		2.3	8,10,12			X	392	

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METHACRYLONITRILE	126-98-7	0.0001	I		0.03	P		21	X	25700	1	12994	14925	X	90			
METHAMIDOPHOS	10265-92-6	0.00005	I					5		2000000	5				223			
METHANOL	67-56-1	2	I		20	I		2.8	X	1000000	2	13025	14964	X	65	36.14		
METHOMYL	16752-77-5	0.025	I					20		58000	2				228			
METHOXYCHLOR	72-43-5	0.005	I					63000		0.045	4,5,6				346	0.69		
METHOXYETHANOL, 2-	109-86-4	0.005	P		[0.02] 0.007	[I] P ²		1	X	1000000	2	13141	15115	X	124	4.50		
METHYL ACETATE	79-20-9	1	X					30	X	243500	4,5,6	12982	14908	X	57			
METHYL ACRYLATE	96-33-3	[0.03]	[H]		0.02	P		55	X	52000	1,2,5	12971	14892	X	70	18.07		
METHYL CHLORIDE	74-87-3			[0.013]	[H]			6	X	6180	1,2,3,4	13103	15038	X	-24	4.50		
METHYL ETHYL KETONE	78-93-3	0.6	I		5	I		32	X	275000	1,2,3,4,5	12974	14897	X	80	2.57		
METHYL HYDRAZINE	60-34-4	0.001	P		0.00002	X	0.001	X		1000000	2	13011	14947	X	88	5.27		
METHYL ISOBUTYL KETONE	108-10-1	[0.08]	[H]		3	I		17	X	19550	1,2,4,5	12983	14910	X	117	18.07		
METHYL ISOCYANATE	624-83-9				0.001	C		10	X	100000	7	13021	14959	X	40			
METHYL N-BUTYL KETONE (2- HEXANONE)	591-78-6	0.005	I		0.03	I		54	X	17500	1	12955	14868	X	128			
METHYL METHACRYLATE	80-62-6	1.4	I		0.7	I		10	X	15600	1	13001	14934	X	100	4.50		
METHYL METHANESULFONATE	66-27-3			0.099	C			5.2		200000	2			X	203			
METHYL PARATHION	298-00-0	0.00025	I					790		25	4,5,6				348	3.61		
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	0.006	H		0.04	H		2,200	X	89	9	12945	14853	X	163			
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4			0.0018	C			12	X	45000	1,2,4,6	13014	14950	X	55	0.69		
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	0.0005	I					112		1000	5,6,8,9				287	1.39		
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	0.002	P	0.1	P			0.00043	C	3,000		13.9	10		379			
METHYLNAPHTHALENE, 2-	91-57-6	0.004	I		0.003	S ⁴		16000	X	25	1	12955	14870		241			
METHYLSTYRENE, ALPHA	98-83-9	0.07	H					660	X	560	9	12942	14850	X	165			
METOLACHLOR	51218-45-2	0.15	I					182	X	530	1,5	13035	14985	X	100			
METRIBUZIN	21087-64-9	0.025	I					95		1200	1,5				367			
MEVINPHOS	7786-34-7	0.000025	O					44	X	600000	6	12947	14856		106			
MONOCHLOROACETIC ACID	79-11-8	[0.002] 0.01	[H] M					0.24	X	858000	17	13008	14943		189			
NAPHTHALENE	91-20-3	0.02	I	0.12	C			0.000034	C	950	3	13284	15323		218	0.98		
NAPHTHYLAMINE, 1-	134-32-7			1.8	S ⁵			3200	X	1690	2	15517	18386		301	0.69		
NAPHTHYLAMINE, 2-	91-59-8			1.8	C			87		6.4	6				306	0.69		
NAPROPAMIDE	15299-99-7	0.12	O					880		70	2				399			
NITROANILINE, O-	88-74-4	0.01	X		0.00005	X		27	X	1200	6	12967	14886		284			
NITROANILINE, P-	100-01-6	0.004	P	0.02	P			15		800	2				332			
NITROBENZENE	98-95-3	0.002	I		0.009	I		0.00004	I	130	X	2000	2	12940	14847	X	211	0.64

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Toxicity Value Appendix

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S¹ Acenaphthene surrogate

S² Trans-Crotonaldehyde surrogate

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S⁵ 2-Naphthylamine surrogate

S⁶ 4-Nitrophenol surrogate

S⁷ Total PCBs surrogate

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S⁹ O-Tolidine surrogate

S¹⁰ 1,2,4-Trichlorobenzene surrogate

Appendix A
Table 5—Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo (mg/kg-d) ¹	RfCi (mg/m ³)	IUR (µg/m ³) ¹	Koc	VOC?	Aqueous Sol (mg/L)	Aqueous Sol Reference ¹	TF Vol from Surface Soil	TF Vol from Subsurface Soil	Organic Liquid	Boiling Point (degrees C)	Degradation Coefficient (K) (yr ⁻¹)				
NITROGUANIDINE	556-88-7	0.1	I			0.13		4400	9				231					
NITROPHENOL, 2-	88-75-5	0.008	S ⁶			37	X	2100	1,2,3,4,5,6	12966	14884		215	9.01				
NITROPHENOL, 4-	100-02-7	0.008	M			230	X	16000	2	12960	14878		279	25.81				
NITROPROPANE, 2-	79-46-9			0.02	I	[0.0027] 0.00058	[H] P	20	X	16700	1,3,4,5	X	120	0.69				
NITROSODIETHYLAMINE, N-	55-18-5		150	I		0.043	I	26	X	93000	10	12974	14896	X	176	0.69		
NITROSODIMETHYLAMINE, N-	62-75-9	0.000008	P	51	I	0.00004	X	0.014	I	8.5	X	1000000	2	13001	14934	X	154	0.69
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3		5.4	I		0.0016	I	450	X	1200	9, 10, 11	13008	14946	X	235	0.69		
NITROSODI-N-PROPYLAMINE, N-	621-64-7		7	I		0.002	C	11	X	9900	6	12986	14914	X	206	0.69		
NITROSODIPHENYLAMINE, N-	86-30-6		0.0049	I		0.0000026	C	580	X	35	1	13148	15140		269	3.72		
NITROSO-N-ETHYLUREA, N-	759-73-9		27	C		0.0077	C	2		13000	9		223	1734.48				
OCTYL PHTHALATE, DI-N-	117-84-0	0.01	P					980000000		3	5		X	234	0.69			
OXAMYL (VYDATE)	23135-22-0	0.025	I			7.1		280000	2					334				
PARAQUAT	1910-42-5	0.0045	I			16200		660000	6,8					352				
PARATHION	56-38-2	0.00003	O			2300		20	2,4,5,6,7			X		375				
PCBS, TOTAL (POLYCHLORINATED BIPHENYLS) (AROCLORS)	1336-36-3		2	I		0.0001	I	78100	0.0505	10,13				360				
PCB-1016 (AROCLOR)	12674-11-2	0.00007	I			110000		0.25	5			X		325				
PCB-1221 (AROCLOR)	11104-28-2		2	S ⁷		0.0001	S ⁷	1900	X	0.59	5	13810	16032	X	275			
PCB-1232 (AROCLOR)	11141-16-5		2	S ⁷		0.0001	S ⁷	1500		1.45	7			X	290			
PCB-1242 (AROCLOR)	53469-21-9		2	S ⁷		0.0001	S ⁷	48000		0.1	5			X	325			
PCB-1248 (AROCLOR)	12672-29-6		2	S ⁷		0.0001	S ⁷	190000	0.054	7,9,11			X	340				
PCB-1254 (AROCLOR)	11097-69-1	0.00002	I			810000		0.057	5			X		365				
PCB-1260 (AROCLOR)	11096-82-5		2	S ⁷		0.0001	S ⁷	1800000	0.08	5				385				
PEBULATE	1114-71-2	[0.05] 0.0007	[H] O			630		92	5			X		303				
PENTACHLOROBENZENE	608-93-5	0.0008	I			32000		0.74	1,5,6,7					277	0.37			
PENTACHLOROETHANE	76-01-7		0.09	P		1905	X	480	1,3	13120	15102	X		160				
PENTACHLORONITROBENZENE	82-68-8	0.003	I	0.26	H	7900		0.44	4,6,8					328	0.36			
PENTACHLOROPHENOL	87-86-5	0.005	I	0.4	I	0.0000051	C	20000	14	1,2,4,5				310	0.17			
PERFLUOROBUTANE SULFONATE (PFBS)	375-73-5	0.0003	P			[61.7] 62	X	56600	9			X	[211] 152					
PERFLUOROBUTANOIC ACID (PFBA)	375-22-4	0.001	I			76	X	49000	25			X		120				
PERFLUOROHEXANE SULFONATE (PFHxS)	355-46-4	0.0000000004	I			320		236	25					238				
PERFLUOROHEXANOIC ACID (PFHxA)	307-24-4	0.0005	I			120	X	160000	25			X		168				
PERFLUORONONANOIC ACID (PFNA)	375-95-1	0.000003	M			250		12	25					218				

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PERFLUOROCTANE SULFONATE (PFOS)	1763-23-1	[0.0002] 0.000031 0.000001	M	[0.07] 39.5	[M] M			[2.57] 370		680	19,20,21,22,23				258		
PERFLUOROCTANOIC ACID (PFOA)	335-67-1	[0.0002] 0.000039 0.0000003	M	29300	M			[2.06] 120	X	9500	24				192		
PHENACETIN	62-44-2			0.0022	C		0.0000063	C		763	2,3,9				341	4.50	
PHENANTHRENE	85-01-8	0.3	S ^B						X	38000	1.1	41808	70721		341	0.63	
PHENOL	108-95-2	0.3	I			0.2	C		X	22	84300	1,2,3,4	12977	14901	182	36.14	
PHENYL MERCAPTAN	108-98-5	0.001	P						X	562	653	5,9	13039	14989	X	170	
PHENYLENEDIAMINE, M-	108-45-2	0.006	I							12	351000	3			286	4.50	
PHENYLPHENOL, 2-	90-43-7			0.00194	H			5,700		700	5				280	18.07	
PHORATE	298-02-2	[0.0002] 0.00017	O					810		50	2			X	319		
PHTHALIC ANHYDRIDE	85-44-9	2	I			0.02	C		X	79	6170	2	13018	14956		285	13490.40
PICLORAM	1918-02-1	0.07	I					15		430	2				373		
POTASSIUM PERFLUOROBUTANE SULFONATE	29420-49-3	0.0003	M					62		46	9				447		
PROMETON	1610-18-0	0.015	I					346		750	2,5				347		
PRONAMIDE	23950-58-5	0.075	I					200		15	2				321		
PROPACHLOR	1918-16-7	0.013	I					139	X	613	8	12952	14865		110	1.73	
PROPANIL	709-98-8	0.005	I					160		225	2				355		
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	2	P			0.2	P	25	X	1000000	2	12981	14906	X	82		
PROPAZINE	139-40-2	0.02	I					155		8.6	1,5			X	318		
PROPHAM	122-42-9	0.02	I					51		250	5				257		
PROPYLBENZENE, N-	103-65-1	0.1	X			1	X	720	X	52	6	12971	14891	X	159		
PROPYLENE OXIDE	75-56-9	0.001	O	0.24	I	0.03	I	0.0000037	I	25	X	405000	1	13239	15057	X	34
PYRENE	129-00-0	0.03	I					68000		0.132	1				393	0.07	
PYRETHRUM	8003-34-7	0.044	O					5.62	X	0.35	13			X	170		
PYRIDINE	110-86-1	0.001	I					0.0066	X	1000000	2	13142	15114	X	115	18.07	
QUINOLINE	91-22-5			3	I			1,300		60000	1,3,5			X	238	12.65	
QUIZALOFOP (ASSURE)	76578-14-8	0.009	I					580		0.3	2				220		
RDX	121-82-4	0.004	I	0.08	I			70		59.9	1,9				353		
RESORCINOL	108-46-3	2	TE					2		717000					280		
RONNEL	299-84-3	0.05	H					580		40	2				349		
SIMAZINE	122-34-9	0.005	I	0.12	H			110		5	5				225		
STRYCHNINE	57-24-9	0.0003	I					280		143	5				270	4.50	
STYRENE	100-42-5	0.2	I			1	I	910	X	300	5	12942	14850	X	145	1.20	
TEBUTHIURON	34014-18-1	0.07	I					620		2500	2				394		

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TERBACIL	5902-51-2	0.013	I			53		710	2				396					
TERBUFOS	13071-79-9	0.000025	H			510		5	6			X	332					
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	[0.0003] 0.00003	[I] P ²			1,800		0.583	1,5,6,7				245	0.69				
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.0000000007	I	130000	C	0.00000004	C	38	4300000	0.0000193	6		412	0.21				
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.03	I	0.026	I			0.0000074	I	980	X	1100	1	12990	14921	X	131	3.79
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.02	I	0.2	I			0.000058	I	79	X	2860	2	12957	14871	X	147	0.56
TETRACHLOROETHYLENE (PCE)	127-18-4	0.006	I	0.0021	I	0.04	I	0.0000026	I	300	X	162	1,2,3,4,5	13017	14955	X	121	0.03
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	0.03	I					6200		183		6					288	0.69
TETRAETHYL LEAD	78-00-2	0.0000001	I					4900		0.8		5				X	202	4.50
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	0.0005	I					550		25		2				X	349	
TETRAHYDROFURAN	109-99-9	0.9	I	0.0076	I	2	I	0.0000194	I	43	X	300000	1,6,7	12970	14891	X	66	
THIOFANOX	39196-18-4	0.0003	H					0.022		5200		9					280	
THIRAM	137-26-8	0.015	O					1000		30		4					339	
TOLUENE	108-88-3	0.08	I			5	I			130	X	532.4	1,2,3,4	13016	14953	X	111	9.01
TOLUIDINE, M-	108-44-1			0.016	S ⁹			0.000051	S	140		15030	6			X	203	
TOLUIDINE, O-	95-53-4			0.016	P			0.000051	C	410		15000	1,3,5			X	200	18.07
TOLUIDINE, P-	106-49-0	0.004	X	0.03	P			320		7410		1,2,3					200	
TOXAPHENE	8001-35-2	0.00009	P	1.1	I			0.00032	I	1500		3	2,4,5				432	
TRIALATE	2303-17-5	0.025	O	[0.717] 0.0717	O			2,000		4		5				X	343	
TRIBROMOMETHANE (BROMOFORM)	75-25-2	0.02	I	0.0079	I			0.000011	I	130	X	3050	1,2,3,4	12942	14849	X	149	0.69
TRICHLORO-1,1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	30	I			5	P			1,200	X	170	1	13064	15014	X	48	0.35
TRICHLOROACETIC ACID	76-03-9	0.02	I	0.07	I			20	X	1200000		2,3,5,9	13291	15077			196	
TRICHLOROBENZENE, 1,2,4-	120-82-1	0.01	I	0.029	P	0.002	P			1500	X	44.4	1,4,6,7	13217	15233	X	213	0.69
TRICHLOROBENZENE, 1,3,5-	108-70-3	0.006	M			0.002	S ¹⁰			3100	X	5.8	5	15677	18611		208	
TRICHLOROETHANE, 1,1,1-	71-55-6	2	I			5	I			100	X	1495	1,4,5,6	13116	15082	X	74	0.05
TRICHLOROETHANE, 1,1,2-	79-00-5	0.004	I	0.057	I	0.0002	X	0.000016	I	76	X	4420	1	12982	14909	X	114	0.03
TRICHLOROETHYLENE (TCE)	79-01-6	0.0005	I	0.046	I	0.002	I	0.000004	I	93	X	1100	1	13070	15022	X	87	0.02
TRICHLOROPHENOL, 2,4,5-	95-95-4	0.1	I					2400		1000		1,2,4					246	0.14
TRICHLOROPHENOL, 2,4,6-	88-06-2	0.001	P	0.011	I			1100		850		1,2,4,5					246	0.14
TRICHLOROPHENOXACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	0.01	I					43		278		2,4,5					279	1.39
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	0.008	I					1700		140		2					353	
TRICHLOROPROPANE, 1,1,2-	598-77-6	0.005	I					24	X	2700		14	13145	15119	X		117	
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.004	I	30	I	0.0003	I			280	X	1896	1,4,6	12974	14896	X	157	0.35

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TRICHLOROPROPENE, 1,2,3-	96-19-5	0.003	X			0.0003	P			190	X	2700	14	13047	14992	X	142	
TRIETHYLAMINE	121-44-8					0.007	I			51	X	55000	1,4	12951	14862	X	90	
TRIETHYLENE GLYCOL	112-27-6	2	P							6		1000000	12			X	285	
TRIFLURALIN	1582-09-8	0.0075	I	0.0077	I					720		4	2,5,6,7				382	
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	0.01	I			0.06	I			2,200	X	56	1	12978	14904	X	169	4.50
TRIMETHYLBENZENE, 1,3,5-	108-67-8	0.01	I			0.06	I			660	X	48.9	1	12961	14876	X	165	
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.0001	P	0.017	P					116	X	1800	2,3,5	12941	14848	X	190	18.07
TRINITROTOLUENE, 2,4,6-	118-96-7	0.0005	I	0.03	I					1		100	2				240	
VINYL ACETATE	108-05-4	1	H			0.2	I			2.8	X	20000	1	13017	14955	X	73	
VINYL BROMIDE (BROMOETHENE)	593-60-2					0.003	I	[0.000032] 0.000015	[H] P	150	X	4180	12	13086	15043	X	16	0.09
VINYL CHLORIDE	75-01-4	0.003	I	1.5	I	[0.1] 0.08	[I] P ²	0.0000088	I	10	X	2700	1	13109	15040	X	-13	0.09
WARFARIN	81-81-2	0.0003	I							910		17	4				356	4.50
XYLENES (TOTAL)	1330-20-7	0.2	I			0.1	I			350	X	175	13	12982	14909	X	140	0.69
ZINEB	12122-67-7	0.05	I							19		10	4				474	

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Table 5—Physical and Toxicological Properties
B. Inorganic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)		CSFo (mg/kg-d) ⁻¹		RfCi (mg/m ³)		IUR [(ug/m ³) ⁻¹] (ug/m ³) ⁻¹		Kd
ALUMINIUM	7429-90-5	1	P			0.005	P			9.9
ANTIMONY	7440-36-0	0.0004	I			0.0003	D			45
ARSENIC	7440-38-2	0.0003	I	1.5	I	0.000015	C	0.0043	I	29
BARIUM AND COMPOUNDS	7440-39-3	0.2	I			[0.0005]	[H]			41
BERYLLIUM	7440-41-7	0.002	I			0.00002	I	0.0024	I	790
BORON AND COMPOUNDS	7440-42-8	0.2	I			[0.02]	[H]			3
CADMIUM	7440-43-9	[0.0005] 0.0001	[I] D¹			0.00001	D	0.0018	I	75
CHROMIUM III	16065-83-1	1.5	I							1,800,000
CHROMIUM VI	18540-29-9	0.0009	I	0.16	I	0.00003	I	0.011	I	19
COBALT	7440-48-4	0.0003	P			0.000006	P	0.009	P	45
COPPER	7440-50-8	0.0325	H							430
CYANIDE, FREE	57-12-5	[0.0006] 0.00063	I			0.0008	I			9.9
FLUORIDE	16984-48-8	0.04	C			0.013	C			
IRON	7439-89-6	0.7	P							25
LEAD	7439-92-1			0.0085	C			0.000012	C	900
LITHIUM	7439-93-2	0.002	P							300
MANGANESE	7439-96-5	0.14	I			0.00005	I			65
MERCURY	7439-97-6	0.00016	C			0.0003	I			52
MOLYBDENUM	7439-98-7	0.005	I			0.002	D			20
NICKEL	7440-02-0	0.02	I			0.00009	D	0.00024	Is	65
NITRATE NITROGEN	14797-55-8	1.6	I							
NITRITE NITROGEN	14797-65-0	0.1	I							
PERCHLORATE	7790-98-9	0.0007	I							0
SELENIUM	7782-49-2	0.005	I			0.02	C			5
SILVER	7440-22-4	0.005	I							8.3
STRONTIUM	7440-24-6	0.6	I							
THALLIUM	7440-28-0	0.00001	X							71
TIN	7440-31-5	0.6	H							250
VANADIUM	7440-62-2	0.005	Id			0.0001	D			1,000
ZINC	7440-66-6	0.3	I							62

¹Value recommended by USEPA Superfund program in May 2021 memo "Recommendations on the Use of Chronic or Subchronic Noncancer Values for Superfund Human Health Risk Assessments."

Toxicity Value Sources:

C = California EPA Cancer Potency Factor

D = ATSDR Minimal

Risk Level

H = Health Effects Assessment Summary Table (HEAST)

I = Integrated Risk Information System (IRIS)

Id = IRIS derived – Value derived from the IRIS oral RfD for Vanadium Pentoxide (0.009 mg/kg-day).

Vanadium constitutes 56% of the molecular weight of the Vanadium Pentoxide molecule. 0.009 mg/kg-day x 0.56 = 0.005_{mg/kg-day}.

P = EPA Provisional Peer-Reviewed Toxicity Value

S = surrogate

X = EPA Provisional Peer-Reviewed Toxicity Value Appendix

APPENDIX A

Table 7

DEFAULT VALUES FOR CALCULATING MEDIUM-SPECIFIC CONCENTRATIONS FOR LEAD

[Input Values Used in UBK Model for Lead (for residential exposure scenario)]			
Geometric Standard Deviation (GSD)	1.42 (default)	Drinking water intake	Model default
Outdoor air lead concentration	0.2 µg/m³ (default)	Soil lead level	495 µg/g
Indoor air lead concentration (% of outdoor)	30	Indoor dust lead level	495 µg/g
Time spent outdoors	Model default	Soil/dust ingestion weighting factor (%)	45
Ventilation rate	Model default	Paint lead intake	Model default
Lung absorption	Model default	Maternal contribution method	Infant model
Dietary lead intake	Model default	Mother's blood lead at birth	7.5 µg/dL blood (model default)
GI method/bioavailability	Non-linear	Target blood lead level	10 µg/dL blood
Lead concentration in drinking water	4.00 µg/L (default)]		

[Input Values Used in SEGH Equation (for nonresidential exposure scenario)]	
Concentration of lead in soil (S)	987 µg/g
Target blood lead level in adults (T)	20 µg/dL blood
Geometric standard deviation of blood lead distribution (G)	1.4
Baseline blood lead level in target population (B)	4 µg/dL blood
Number of standard deviations corresponding to degree of protection required for the target population (n)	1.645 (for 95% of population)
Slope of blood lead to soil lead relationship (δ)	7.5 µg/dL blood per µg/g soil]

[REFERENCE

WIXSON, B.G. (1991). The Society for Environmental Geochemistry and Health (SEGH) Task Force Approach to the Assessment of Lead in Soil. Trace Substances in Environmental Health . 11-20.]

<u>Input Values Used in IEUBK Model for Lead</u> <u>(for residential exposure scenario)</u>		
<u>Parameter</u>	<u>Value</u>	
<u>Outdoor Air Pb Concentration ($\mu\text{g}/\text{m}^3$)</u>	<u>Constant Value: 0.1</u>	
<u>Dietary Lead Intake ($\mu\text{g}/\text{day}$)</u>	<u>Age (Years)</u>	<u>Input</u>
	<u>0-1</u>	<u>2.66</u>
	<u>1-2</u>	<u>5.03</u>
	<u>2-3</u>	<u>5.21</u>
	<u>3-4</u>	<u>5.38</u>
	<u>4-5</u>	<u>5.64</u>
	<u>5-6</u>	<u>6.04</u>
	<u>6-7</u>	<u>5.95</u>
<u>Water Consumption (L/day)</u>	<u>Age (Years)</u>	<u>Input</u>
	<u>0-1</u>	<u>0.4</u>
	<u>1-2</u>	<u>0.43</u>
	<u>2-3</u>	<u>0.51</u>
	<u>3-4</u>	<u>0.54</u>
	<u>4-5</u>	<u>0.57</u>
	<u>5-6</u>	<u>0.6</u>
	<u>6-7</u>	<u>0.63</u>
<u>Use Alternate Water Value?</u>	<u>NO</u>	
<u>Lead concentration in drinking water ($\mu\text{g}/\text{L}$)</u>	<u>0.9</u>	
<u>MEDIA</u>	<u>ABSORPTION FRACTION</u>	
	<u>PERCENT</u>	
<u>Soil</u>	<u>30</u>	
<u>Dust</u>	<u>30</u>	
<u>Water</u>	<u>50</u>	
<u>Diet</u>	<u>50</u>	
<u>Alternate</u>	<u>0</u>	
<u>Calculate PRG (primary remediation goal)</u>		
<u>Select Age Group for Graph</u>	<u>0 to 84 months</u>	
<u>Change Cutoff (Target Blood Lead Level)</u>	<u>5 $\mu\text{g}/\text{dL}$</u>	
<u>Change GSD</u>	<u>1.6</u>	
<u>Probability of Exceeding the Cutoff</u>	<u>5</u>	

Input Values Used in the Adult Lead Model (ALM)
(for non-residential exposure scenario)

<u>Variable</u>	<u>Description of Variable</u>	<u>Units</u>	<u>Value</u>
<u>PbB_{fetal, 0.95}</u>	<u>Target PbB in fetus</u>	<u>µg/dL</u>	<u>5</u>
<u>R_{fetal/maternal}</u>	<u>Fetal/maternal PbB ratio</u>	<u>=</u>	<u>0.9</u>
<u>BKSF</u>	<u>Biokinetic Slope Factor</u>	<u>µg/dL per µg/day</u>	<u>0.4</u>
<u>GSD_i</u>	<u>Geometric standard deviation PbB</u>	<u>=</u>	<u>1.8</u>
<u>PbB₀</u>	<u>Baseline PbB</u>	<u>µg/dL</u>	<u>0.6</u>
<u>IR_s</u>	<u>Soil ingestion rate</u>	<u>g/day</u>	<u>0.050</u>
<u>AF_{s, D}</u>	<u>Absorption fraction</u>	<u>=</u>	<u>0.12</u>
<u>EF_{s, D}</u>	<u>Exposure frequency</u>	<u>days/yr</u>	<u>219</u>
<u>AT_{s, D}</u>	<u>Averaging time</u>	<u>days/yr</u>	<u>365</u>