PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 250]

Administration of Land Recycling Program

The Environmental Quality Board (Board) proposes to amend Chapter 250 (relating to Administration of Land Recycling Program). The amendments update the Statewide health standards by using current Environmental Protection Agency (EPA) guidance and updated toxicological information. The proposal also corrects errors and codifies certain established policies into regulation.

This proposal was adopted by the Board at its meeting of December 15, 2009.

A. *Effective Date*

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final-form rulemaking.

B. *Contact Persons*

For further information, contact Troy Conrad, Director, Land Recycling Program, P. O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 783-7816 or Kurt Klapkowski, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposal appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) web site at http://www.depweb.
state.pa.us.

C. *Statutory Authority*

This rulemaking is being made under the authority of sections 104(a) and 303(a) of the Land Recycling and Environmental Remediation Standards Act (Land Recycling Act) (35 P. S. §§ 6026.104(a) and 6026.303(a)), and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20). Section 104(a) of the Land Recycling Act authorizes the Board to adopt Statewide health standards, appropriate mathematically valid statistical tests to define compliance with the Land Recycling Act and other regulations that may be needed to implement the provisions of the Land Recycling Act. Section 303(a) of the Land Recycling Act authorizes the Board to promulgate Statewide health standards for regulated substances for each environmental medium and methods used to calculate the standards. Section 1920-A authorizes the Board to formulate, adopt and promulgate rules and regulations that are necessary for the proper work of the Department.

D. *Background and Purpose*

The primary purpose for this proposed rulemaking is to update the standards related to cleanup of contaminated sites under the Land Recycling Act. The Land Recycling Act requires the Board to establish by regulation uniform Statewide health-based standards so that any substantial present or probable future risk to human health and the environment is eliminated. The original standards were promulgated in 1997 and codified in Chapter 250. Section 104(a) of the Land Recycling Act explicitly recognizes that these standards would need to be updated over time as better science became available and as the need for clarification or enhancement of the program became apparent. Updating the standards serves the public as the Department is able to use the most up-to-date health and scientific information to establish the cleanup standards. In addition, the changes in standards serve both the public and the regulated community as they provide clear information on what is or will be done at contaminated sites. This gives the public notice and provides remediators with a clear endpoint to the remediation process. Several amendments are currently part of guidance, but are proposed for addition to Chapter 250 to give the requirements the legal status of a binding norm, which should lead to greater consistency and clarity across this Commonwealth.

The proposal was discussed and approved with unanimous support at the Cleanup Standards Scientific Advisory Board (CSSAB) board meeting held on September 1, 2009; however, subsequent to the CSSAB's review, the Department reconsidered changes to the Statewide health standards initially considered for Methyl Tertiary Butyl Ether (MTBE) and decided not to propose any changes for MTBE at this time. The current Chapter 250 Statewide health cleanup standard for MTBE is 20 ug/l for groundwater used for drinking water. This 20 ug/l standard is the odor threshold for MTBE as published by the United States EPA in the "*2006 Edition of the Drinking Water Standards and Health Advisories*" (EPA 822-R-06-013). The Department has decided that the previously considered revisions for MTBE included in the September 1, 2009 draft, which allowed for higher concentrations of MTBE based on health based calculations, would have resulted in unacceptable taste and odor impacts on groundwater used for drinking water. The CSSAB reviewed the revised regulations on November 19, 2009, and while the CSSAB is supportive of the overall rulemaking, it opposes the standards for MTBE, as contained in the proposal, because they do not reflect specific health-based criteria from the Land Recycling Act.

E. *Summary of Regulatory Requirements*

§ 250.1. Definitions.

For three definitions in this section only an explanation of what the abbreviation meant was originally provided. This section has been modified to include a definition for "EQL—Estimated Quantitation Limit," "NPDES—National Pollutant Discharge Elimination System" and "PQL—Practical Quantitation Limit." A fourth definition, for "environmental covenant," was added due to the passage of the Uniform Environmental Covenants Act (27 Pa.C.S. §§ 6501—6517) (UECA).

§ 250.11. Periodic Review of MSCs.

This new section describes the Department's intent to keep the medium-specific concentrations (MSCs) in Appendix A to Chapter 250 current by proposing appropriate changes based on new scientific information that relates to the basis of the MSCs at least every 3 years.

§ 250.301. Scope.

In January 2009, the EPA issued a revised methodology for calculating the risk from regulated substances at Superfund sites by developing a new document "*Risk Assessment for Superfund (RAGS), Volume I, Part F*" (RAGS). A new Subsection (b) was added to identify those

regulated substances that the EPA has determined to be mutagens in the RAGS. The new methodology for calculating MSCs for these substances is described in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values).

§ 250.303. Aquifer determination; current use and currently planned use of aquifer groundwater.

The language of § 250.303(d)(3)(i) was modified to change the previously undefined terminology "acknowledged within the deed" to terminology defined under the UECA.

§ 250.304. MSCs for groundwater.

The proposed rulemaking clarifies that maximum contaminant levels (MCLs) and lifetime health advisory levels (HALs) promulgated by the Department or the EPA are immediately effective upon promulgation.

This section further clarifies the need for a remediator to address the potential intrusion of vapors from contaminated groundwater into buildings when conducting a Statewide health standard remediation under Chapter 250.

§ 250.305. MSCs for soil.

Similar to the clarification in § 250.304, this section further clarifies the need for a remediator to address the potential intrusion of vapors from contaminated soil into buildings when conducting a Statewide health standard remediation under Chapter 250.

§§ 250.306 and 250.307. Ingestion numeric values; and inhalation numeric values.

The new formulas referenced in RAGS, Volume I, Part F represent an update by the EPA of its methodology to calculate inhalation risks, originally proposed in RAGS Part A. The key difference between RAGS Part F and RAGS Part A is the use of exposure estimates (that is, air concentration metrics) that are inhalation route-specific (that is, in ug/m^3) rather than ones converted to chronic "air intake" (that is, mg/kg-day).

The update to RAGS was necessary to ensure that the calculation of risk estimates from inhaled chemicals is consistent with EPA's currently recommended approach to developing inhalation toxicity values, that is, inhalation reference concentration (RfCi, that is, mg/m^3) and inhalation unit risk (IUR, that is, $(ug/m^3)^{-1}$). The approach to calculating inhalation toxicity values is referenced in EPA's Inhalation Dosimetry Methodology, *Methods for Derivation of Inhalation Reference Concentrations (RfCs) and Application of Inhalation Dosimetry*. (United States Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, DC, EPA/600/8-90/066F, October 1994.) The methodology assumes continuous exposure and is designed so that it yields toxicity values that sufficiently cover potential age and activity related variation in inhalation exposure (RAGS, Volume I, Part F, Page A-2, Second Bullet). The exception is for chemicals that may act as mutagens and for which susceptibility is not incorporated into the IUR. A separate adjustment factor is needed where early childhood exposures are to be evaluated.

For those substances classified as mutagens, the new inhalation methodology applies Age Dependent Adjustment Factors in the calculations. These substances are identified in § 250.301(b) of the proposed regulations.

Except for the MSCs of those regulated substances that have been determined to cause cancer by a mutagenic mode of action, most of the soil and groundwater MSCs that are controlled by inhalation risks increased in value by using this new inhalation methodology. The soil and groundwater MSCs for mutagens have generally decreased in values as a result of using this new inhalation methodology

§ 250.308. Soil to groundwater pathway numeric values.

This proposed amendment corrects an omitted reference to one of the tables that contains the soil to groundwater values. No practical change in current practice is expected.

§ 250.407. Point of compliance.

This proposed change corrects a mistaken reference to soil to groundwater values on site-specific standard sites. No practical change in current practice is expected.

§ 250.605. Sources of toxicity information.

In addition to including new inhalation toxicity values (that is, inhalation reference concentration and inhalation unit risk) as required by RAGS, Volume I, Part F, the proposed changes also include an update to the hierarchy of toxicity values. This update to the hierarchy of toxicity values is necessary to comply with EPA guidance developed since the last update to Chapter 250 and titled *Memorandum, Human Health Toxicity Values in Superfund Risk Assessments* (OSWER Directive 9285.7-53, December 5, 2003).

§ 250.704. General attainment requirements for groundwater.

The Department recognizes that at the time of site assessment, many sites have groundwater contamination below a standard. In these cases, remediators desire the liability protection afforded by Chapter 5 of the Land Recycling Act (35 P. S. §§ 6026.501—6026.506) yet there is little scientific value in requiring additional attainment monitoring for the 8 quarters required under Subchapter G of the current regulations. The proposed change provides that the Department may consider the site assessment data as part of the information to be used to demonstrate attainment of a standard. This change fixes a problem in the construction of the rule requirements, and will allow remediators to more easily attain a standard without compromising public health.

§ 250.707. Statistical tests.

Section 250.707(b)(iii) applies to remediations where full site characterization has not been completed prior to remediation. This provision applies specifically to remediations of petroleum releases which typically result in visually observable contamination. This section provides for a reduced number of samples to demonstrate attainment, subject to a no exceedance rule rather than the application of statistical tests to demonstrate attainment. Section 250.707(b)(iv) was originally intended to fall under this provision, but as currently structured in the regulation, it applies to any remediation under the Statewide health standard. The proposed amendment places this provision within the structure of the requirements for petroleum releases without full site characterization where it was originally intended to be.

Appendix A, Tables 1—5

Since November 24, 2001, when the previous amendment was finalized, toxicology information in the references stated in § 250.605 (relating to sources of toxicity information) and physical and chemical property data listed in Table 5 have been revised for some substances. Additionally, some substances that were not listed in

Tables 1—5, but that now have toxicology information available were recommended for inclusion in Tables 1—5 by the CSSAB. Some of these substances had previously been on Table 6, Threshold of Regulation MSCs; these substances have been moved to the appropriate Tables 1—5. Typographical errors were corrected.

F. *Benefits, Costs and Compliance*

Benefits

The Department and Board are required to update the cleanup standard concentration values and the associated toxicological data in a timely manner to assure that environmental response actions at contaminated sites are remediated based on the current EPA guidance and current toxicological information.

Meeting this responsibility in these proposed amendments assures the protection of the public health and environment relating to exposure to regulated substances where it has been determined that lower concentrations of a regulated substances are required to meet the standards established by the statute.

These proposed amendments also avoid unnecessary expense for remediators when remediating contaminated property where it has been determined that higher concentrations of regulated substances are protective and meet the standards established by the statute.

Compliance Costs

These technical amendments to this chapter will affect owners, operators and purchasers of properties and facilities who volunteer or are required to perform remediation of contaminated sites.

These changes are not expected to add any significant costs to the cleanup of contaminated sites under this program. Some cleanup standard concentration values will be lower and some will be higher. The net cost should be negligible.

Compliance Assistance Plan

The Department has regularly provided the regulated public with workshops to explain new regulations, guidance and policy. These are conducted on an average of every 1 to 2 years. Workshops will be planned to coincide with the finalization of this rule.

Paperwork Requirements

No forms or reports are required beyond those established by Act 2.

G. *Pollution Prevention*

As this program assumes pollution has taken place, minimizing the release is not an option. However, in remediating a site, potential sources of pollution are often removed to attain the Land Recycling Act standards, thus eliminating or minimizing the potential for future exposure to regulated substances.

H. *Sunset Review*

These regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations, effectively fulfill the goals for which they were intended.

I. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on February 24, 2010, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the House and Senate Environmental Resources and Energy Committees (Committees). In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed Regulatory Analysis Form prepared by the Department. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed amendments within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria that have not been met. The Regulatory Review Act specifies detailed procedures for review of these issues by the Department, the General Assembly and the Governor prior to final publication of the regulations.

J. *Public Comments*

Written Comments: Interested persons are invited to submit comments, suggestions or objections regarding the proposed regulation to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by April 5, 2010. Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by the Board by April 5, 2010. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final-form regulation will be considered.

Electronic Comments: Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by April 5, 2010. A subject heading of the proposal and a return name and address must be included in each transmission. If the sender does not receive an acknowledgement of electronic comments within 2 working days, the comments should be retransmitted to ensure receipt.

JOHN HANGER,
Chairperson

Fiscal Note: 7-453. No fiscal impact; (8) recommends adoption.

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

Subpart A. General Provisions

§ 250.1. Definitions.

In addition to the words and terms defined in the act, the following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

EQL—Estimated quantitation limit. **The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during**

routine laboratory operating conditions. The EQL is generally 5 to 10 times the MDL (method detection limit). However, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes the EQL analyte concentration is selected as the lowest non-zero standard in the calibration curve. Sample EQLs are highly matrix dependent. The EQLs in the EPA publication *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* **[SW-846] are provided for guidance and may not always be achievable.**

* * * * *

***Environmental covenant*—A servitude arising under an environmental response project which imposes activity and use limitations.**

* * * * *

NPDES—National Pollutant Discharge Elimination System. **The National system for the issuance of permits under section 402 of the Federal Clean Water Act (33 U.S.C.A. § 1342) including a state or interstate program which has been approved in whole or in part by the EPA.**

PQL—Practical quantitation limit. **The lowest limit that can be reliably achieved within specified limits of precision and accuracy under routine laboratory conditions for a specified matrix and based on quantitation, precision and accuracy, normal operation of a laboratory and the practical need in a compliance-monitoring program to have a sufficient number of laboratories available to conduct the analyses.**

* * * * *

§ 250.11. Periodic review of MSCs.

The Department will review new scientific information that relates to the basis of the MSCs as it becomes available and will propose appropriate changes for the consideration of the EQB as necessary, but in no case more than 36 months after the effective date of the most recently promulgated MSCs.

Subchaptor C. Statewide Health Standards

§ 250.301. Scope.

* * * * *

(b) **This subchapter sets forth generic Statewide health standards for regulated substances determined by the EPA to be mutagens. Tables 1—4 contain Statewide health standards based upon the methodology for mutagens in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values) for the following substances classified as mutagens:**

Regulated Substance	*CAS Number*
Benzo[a]anthracene	**56-55-3**
Benzidine	**92-87-5**
Benzo[a]pyrene	**50-32-8**
Benzo[b]fluoranthene	**205-99-2**
Benzo[k]fluoranthene	**207-08-9**
Chrysene	**218-01-9**
Dibenzo[a,h]anthracene	**53-70-3**
Dibromo-3-chloropropane, 1,2-	**96-12-8**
Indeno[1,2,3-cd]pyrene	**193-39-5**
Methylene bis(2-chloroaniline), 4,4′-	**101-14-4**
Nitrosodiethylamine, n-	**55-18-5**
Nitrosodimethylamine, n-	**62-75-9**
Nitroso-n-ethylurea, n-	**759-73-9**
Vinyl chloride	**75-01-4**

(c) This subchapter sets forth minimum threshold MSCs for soil and groundwater that shall be met to demonstrate attainment of the Statewide health standards for regulated substances in Appendix A, Table 6. Minimum threshold MSCs are standards developed for regulated substances for which no chemical-specific toxicological data exist.

[(c)](d)) For regulated substances which do not have an MSC for the relevant medium on Appendix A, Tables 1—4 or 6, the background standard or site-specific standard shall be met to qualify for a release of liability under the act.

§ 250.303. Aquifer determination; current use and currently planned use of aquifer groundwater.

* * * * *

(d) If the Department determines that groundwater is not used or currently planned to be used, the following requirements apply within the area identified in subsection (b):

* * * * *

(3) The remediator shall establish institutional controls to maintain the integrity of the nonuse aquifer determination, or include a postremediation care plan in the final report detailing the process of routinely assessing and reporting to the Department compliance with subsection (c).

(i) Postremediation care plan provisions shall be **[acknowledged within the deed to the remediated property upon transfer of ownership] implemented through an environmental covenant** to ensure compliance with subsection (c).

* * * * *

§ 250.304. MSCs for groundwater.

* * * * *

(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 is the MCL as established by the Department or the EPA **[(U. S. EPA, 1996. Drinking Water Regulations and Health Advisories] as established in § 109.202 (relating to state MCLs, MRDLs and treatment technique requirements) and Health Advisory Levels (HAL) set forth in EPA** Office of Water **Publication [EPA 822-R-96-001)] No. EPA 822-R-06-013**. For a regulated substance where no MCL has been established, the MSC is the lifetime **[health advisory level ( ]** HAL **[ )]** for that compound. For a regulated substance where neither an MCL nor a lifetime HAL **[is] has been** established, the MSC is 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). **New or revised MCLs or**

HALs promulgated by the Department or the EPA shall become effective immediately for any demonstration of attainment completed after the date the new or revised MCLs or HALs become effective.

* * * * *

(h) The methodology used by the Department for calculating the MSCs for groundwater does not address the vapor intrusion exposure pathway. Therefore, to demonstrate attainment under the act for the vapor intrusion exposure pathway the remediator shall address the vapor intrusion exposure pathway in accordance with section 304(f)(4) of the act (35 P. S. § 6026.304(f)(4)) and Subchapter D (relating to site-specific standard), or in accordance with technical guidance published by the Department addressing vapor intrusion into buildings from groundwater and soil under the Statewide health standard.

§ 250.305. MSCs for soil.

* * * * *

(h) The methodology used by the Department for calculating the MSCs for soil does not address the vapor intrusion exposure pathway. Therefore, to demonstrate attainment under the act for the vapor intrusion exposure pathway the remediator shall address the vapor intrusion exposure pathway in accordance with section 304(f)(4) of the act (35 P. S. § 6026.304(f)(4)) and Subchapter D (relating to site-specific standard), or in accordance with technical guidance published by the Department addressing vapor intrusion into buildings from groundwater and soil under the Statewide health standard.

(*Editor's Note*: For the equations that are being modified in §§ 250.306 and 250.307, the original equation is shown as being deleted in its entirety. The modified equation is shown immediately below the equation it replaces, and for clarity and ease of reading it is in normal bold type.)

§ 250.306. Ingestion numeric values.

(a) For a regulated substance which is a systemic toxicant, the ingestion numeric value for that substance was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following equation:

[MSC = $\frac{THQ \times RfD_o \times BW \times AT_{DC} \times 365\ days/year}{Abs \times EF \times ED \times IngR \times CF}$]

MSC = $\frac{THQ \times RfDo \times BW \times ATnc \times 365\ days/year}{Abs \times EF \times ED \times IngR \times CF}$

(b) For a regulated substance which is a carcinogen, the ingestion numeric value for that substance was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following **[equation] equations**:

[MSC = $\frac{TR \times AT_c \times 365\ days/year}{CSF_o \times Abs \times EF \times ED \times IF_{adj} \times CF}$]

(1) For regulated substances not identified as a mutagen in § 250.301(b) (relating to scope):

MSC = $\frac{TR \times ATc \times 365\ days/year}{CSFo \times Abs \times EF \times IFadj \times CF}$

(2) For regulated substances identified as a mutagen, except for vinyl chloride, in § 250.301(b):

MSC = $\frac{TR \times ATc \times 365\ days/year}{CSFo \times Abs \times EF \times AIFadj \times CF}$

(3) For vinyl chloride:

MSC = $\frac{TR}{[\ CSFo \times Abs \times EF \times IFadj \times CF / (ATc \times 365\ days/year)\ ] + (CSFo \times Abs \times IRc \times CF/BWc)}$

* * * * *

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

Term		*Residential*		*Nonresidential*
		Systemic[1]	*Carcinogens*[2,6]	*(Onsite Worker)*
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) Soil Groundwater	 15 70	N/A	 70 70
[AT_{DC}] ATnc	Averaging Time for systemic toxicants (yr) Soil Groundwater	 6 30	 N/A N/A	 25 25
Abs	Absorption (unitless)[3]	1	1	1
EF[5]	Exposure Frequency (d/yr) Soil Groundwater	 250 350	 250 350	 180 250

Term		*Residential*		*Nonresidential*
		Systemic[1]	*Carcinogens*[2,6]	*(Onsite Worker)*
ED	Exposure Duration (yr) Soil Groundwater	 6 30	 N/A N/A	 25 25
IngR	Ingestion Rate Soil (mg/day) GW (L/day)	 100 2	 N/A N/A	 50 1
CF	Conversion Factor Soil (kg/mg) GW (unitless)	 1×10^{-6} 1	 1×10^{-6} 1	 1×10^{-6} 1
TR	Target Risk	N/A	1×10^{-5}	N/A
[CSF_o] CSFo	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	N/A	Chemical-specific	Chemical-specific
[At_c] ATc	Averaging Time for carcinogens (yr)	N/A	70	70
[If_{adj}] IFadj[4]	Ingestion Factor Soil (mg-yr/kg-day) GW (L-yr/kg-day)	N/A	 57.1 1.1	 17.9 0.4
AIFadj[5]	**Combined Age-Dependent Adjustment Factor and Ingestion Factor Soil (mg-yr/kg- day) GW (L-yr/kg- day)**	**N/A**	 **245** **3.39**	**N/A**

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, IRc = 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 L/day for groundwater, and BW_a = 70 kg. The ingestion factor for the nonresidential scenario is calculated using the equation If_{adj} = ED × IR/BW, where ED = 25 yr, IR = 50 mg/day for soils and 1 L/day for groundwater, and BW = 70 kg.

[5] **[In cases where the inhalation RfD or CSF is based on absorbed dose, this factor can be applied in the exposure algorithm. The default value is 1] The Combined Age-Dependent Adjustment Factor and Ingestion Factor (AIFadj) for the residential scenario is calculated using the equation AIFadj = [$ADAF_{<2} \times ED_{<2}$ + ($ADAF_{2\text{-}6} \times ED_{2\text{-}6}$] × IRc / BWc + [($ADAF_{>6\text{-}16} \times ED_{>6\text{-}16}$ + ($ADAF_{>16} \times ED_{>16}$)] × IRa / BWa, where $ADAF_{<2}$ = 10, $ED_{<2}$ = 2 yr, $ADAF_{2\text{-}6}$ = 3, $ED_{2\text{-}6}$ = 4 yr, IRc = 100mg/day for soils and 1 L/day for groundwater, BWc = 15 kg, $ADAF_{>6\text{-}16}$ = 3, $ED_{>6\text{-}16}$ = 10 yr, $ADAF_{>16}$ 1, $ED_{>16}$ = 14 yr, IRa = 50 mg/day for soils and 2 L/day for groundwater, and BWa = 70 kg**.

[6] **For the equation to calculate the vinyl chloride residential MSC based on the carcinogenic effect, IRc = 100 mg/day for soils and 1 L/day for groundwater, BWc = 15 kg.**

* * * * *

§ 250.307. Inhalation numeric values.

(a) For a regulated substance which is a systemic toxicant, the following applies:

(1) For a volatile compound, the numeric value for inhalation from soil shall be calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following equation using TF for volatiles:

$$\text{[MSC} = \frac{\text{THQ} \times \text{RfD}_i \times \text{BW} \times \text{AT}_{nc} \times 365 \text{ days/year} \times \text{TF}}{\text{Abs} \times \text{ET} \times \text{EF} \times \text{ED} \times \text{IR}} \text{]}$$

$$\text{MSC} = \frac{\text{THQ} \times \text{RfCi} \times \text{ATnc} \times 365 \text{ days/year} \times \text{TF}}{\text{ET} \times \text{EF} \times \text{ED}}$$

(2) For a regulated substance attached to particulates, the numeric value for inhalation from soil was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the

equation in paragraph (1) using TF for particulates.

(b) For a regulated substance which is a carcinogen, the following apply:

(1) For a volatile compound, the numeric value for inhalation from soil was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following equation using TF for volatiles:

$$\left[\ MSC = \frac{TR \times AT_c \times 365\ days/year \times TF}{CSF_i \times Abs \times ET \times EF \times If_{adj}}\ \right]$$

$$MSC = \frac{TR \times ATc \times 365\ days/year \times 24\ hr/day \times TF}{IUR \times ET \times EF \times ED \times CF}$$

(2) For a regulated substance attached to particulates, the numeric value for inhalation from soil was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the equation in paragraph (1) using TF for particulates.

(3) For a regulated substance identified in § 250.301(b) (relating to scope) as a mutagen, except for vinyl chloride, the numeric value for inhalation from soil was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following equation using the TF for volatiles:

$$MSC = \frac{TR \times ATc \times 365\ days/year \times 24\ hr/day \times TF}{IUR \times ET \times EF \times AED \times CF}$$

(4) For vinyl chloride, the numeric value for inhalation from soil was calculated using the appropriate residential or nonresidential exposure assumptions from subsection (d) according to the following equation using the TF for volatiles:

$$MSC = \frac{TR}{[\ IUR \times ET \times EF \times ED \times CF\ /\ (ATc \times 365days/yr \times 24hr/d \times TF)\ ] + (IUR \times CF \times TF)}$$

* * * * *

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

Term		*Residential*		*Nonresidential*
		Systemic[1]	*Carcinogens*[2]	*(Onsite Worker)*
THQ	Target Hazard Quotient	1	N/A	1
[RfD_i] RfCi	Inhal. Reference **[Dose (mg/kg-day)] Concentration (mg/m^3)**	Chemical-specific	N/A	Chemical-specific
[BW]	**[Body Weight (kg)]**	**[70]**	**[N/A]**	**[70]**
[AT_{nc}] ATnc	Averaging Time for systemic toxicants (yr)	30	N/A	25
TF	Transport Factor ($mg/kg)/(mg/m^3$) Volatilization[3] Particulate[4]	Chemical-specific 1×10^{10}	Chemical-specific 1×10^{10}	Chemical-specific 1×10^{10}
[Abs]	**[Absorption (unitless)[5]]**	**[1]**	**[1]**	**[1]**
ET	Exposure Time (hr/day)	24	24	8
EF	Exposure Frequency[6][5] (d/yr)	250	250	180
ED	Exposure Duration (yr)	30	N/A	25
CF	**Conversion Factor**	**1,000 µg/mg**	**1,000 µg/mg**	**1,000 µg/mg**
[IR]	**[Inhalation Rate (m^3/hr)]**	**[0.8[3]]**	**[N/A]**	**[1.25]**
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
[CSF_i] IUR	Inhalation **[Cancer Slope Factor (mg/kg-day)]Unit Risk ($\mu g/m^3$)$^{-1}$**	N/A	Chemical-specific	Chemical-specific

Term		Residential		Nonresidential
		Systemic[1]	*Carcinogens*[2]	*(Onsite Worker)*
[AT_c] ATc	Averaging Time for carcinogens (yr)	N/A	70	70
[If_{adj}]	**[Inhalation Factor[7] (m^3-yr/kg-hr)]**	**[N/A]**	**[0.5]**	**[0.4]**
AED	**Combined Age-Dependent Adjustment Factor and Exposure Duration (yr)[6]**	**N/A**	**76**	**N/A**

Notes: Modified from USEPA Region III Risk-based Concentration Table, dated October 20, 1995.

N/A = Not Applicable

[1] Residential exposure to systemic toxicants is based on adult exposure, consistent with USEPA (1991).

[2] Residential exposure to carcinogens is based on combined child and adult exposure.

[3] Volatilization transport factor is calculated using TF = $(ER \times DF)^{-1}$, where DF = 12 $(mg/m^3)/(m^2\text{-sec})$. See soil depth-specific algorithm for the calculation of ER.

[4] Particulate transfer factor was calculated using TF = $(ER \times DF)^{-1}$, where ER = 8.25×10^{-12} $(mg/m^2\text{-sec})/(mg/kg)$ and DF = $12(mg/m^3)/(mg/m^2\text{-sec})$.

[[5] In cases where the inhalation RfD or CSF is based on absorbed dose, this factor can be applied in the exposure algorithm. The default value is 1.]

[6][5] Assumes approximately 100 days/yr with the ground being frozen. Exposure to surficial soils when the ground is frozen is considered *de minimis*. The nonresidential exposure frequency is defined as 5/7 × 250 days/yr.

[[7] The inhalation 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 = 0.5 m^3/hr, BW_c = 15kg, ED_a = 24 yr, IR_a = 0.83 m^3/hr, and BW_a = 70 kg. The inhalation factor for the nonresidential scenario is calculated using the equation IF_{adj} = ED × IR/BW, where ED = 25 yr, IR = 1.25 m^3/hr and BW = 70 kg.]

[6] The Combined Age-Dependent Adjustment Factor and Exposure Duration (AED) is calculated using the equation $AED = ADAF_{<2} \times ED_{<2} + ADAF_{2\text{-}16} \times ED_{2\text{-}16} + ADAF_{>16}$, where $ADAF_{<2}$ = 10, $ED_{<2}$ = 2 yr, $ADAF_{2\text{-}16}$ = 3, $ED_{2\text{-}16}$ = 14 yr, $ADAF_{>16}$ = 1, $ED_{>16}$ = 14 yr.

* * * * *

(f) For a regulated substance which is a systemic toxicant and is a volatile compound, the numeric value for the inhalation of volatiles from groundwater was calculated by using the appropriate residential or nonresidential exposure assumptions from subsection (h) according to the following equation:

$$\text{[MSC} = \frac{\text{THQ} \times \text{RfDi} \times \text{BW} \times \text{ATnc} \times 365\ \text{days/yr}}{\text{Abs} \times \text{ET} \times \text{EF} \times \text{ED} \times \text{IR} \times \text{TF]}}$$

$$\text{MSC} = \frac{\text{THQ} \times \text{RfC} \times \text{ATnc} \times 365\ \text{days/year} \times 24\ \text{hr/day}}{\text{ET} \times \text{EF} \times \text{ED} \times \text{TF}}$$

(g) For a regulated substance which is a carcinogen and is a volatile compound, the numeric value for the inhalation of volatiles from groundwater shall be calculated by using the appropriate residential or nonresidential exposure assumptions from subsection (h) according to the following **[equation] equations**:

$$\text{[MSC} = \frac{\text{TR} \times \text{ATc} \times 365\ \text{days/yr}}{\text{CSFi} \times \text{ABs} \times \text{ET} \times \text{EF} \times \text{IFadj} \times \text{TF]}}$$

(1) For regulated substances not identified as a mutagen in § 250.301(b):

$$\text{MSC} = \frac{\text{TR} \times \text{ATc} \times 365\ \text{days/year}}{\text{IUR} \times \text{ET} \times \text{EF} \times \text{ED} \times \text{TF} \times \text{CF}}$$

(2) For regulated substances identified as a mutagen, except for vinyl chloride, in § 250.301(b):

$$\text{MSC} = \frac{\text{TR} \times \text{ATc} \times 365\ \text{days/year} \times 24\ \text{hr/day}}{\text{IUR} \times \text{ET} \times \text{EF} \times \text{AED} \times \text{TF} \times \text{CF}}$$

(3) For vinyl chloride:

$$\text{MSC} = \frac{\text{TR}}{\text{[(IUR} \times \text{ET} \times \text{EF} \times \text{ED} \times \text{TF} \times \text{CF) / (ATc} \times 365\ \text{days/year} \times 24\ \text{hr/day)]} + (\text{IUR} \times \text{TF} \times \text{CF})}$$

(h) The default exposure assumptions used to calculate the inhalation numeric values for the inhalation of volatiles from groundwater are as follows:

Term		*Residential*		*Nonresidential*
		Systemic[1]	*Carcinogens*[2]	*(Onsite Worker)*
THQ	Target Hazard Quotient	1	N/A	1
[RfD_i] RfC	Inhal. Reference **[Dose (mg/kg-day)] Concentration (mg/m^3)**	Chemical-specific	N/A	Chemical-specific
[BW]	**[Body Weight (kg)]**	**[70]**	**[N/A]**	**[70]**
[AT_{nc}] ATnc	Averaging Time for systemic toxicants (yr)	30	N/A	25
[Abs]	**[Absorption (unitless)[3]]**	**[1]**	**[1]**	**[1]**
ET	Exposure Time (hr/day)	24	24	8
EF	Exposure Frequency[6] (d/yr)	350	350	250
ED	Exposure Duration (yr)	30	**[N/A] 30**	25
[IR]	**[Inhalation rate (m^3/hr)]**	**[0.625]**	**[N/A]**	**[1.25]**
TF	Transfer Factor (L/m^3)**[4]3**	0.5	0.5	0.5
CF	**Conversion Factor**	**N/A**	**1,000 µg/mg**	**1,000 µg/mg**
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
[CSF_i] IUR	Inhalation **[Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$] Unit Risk $(ug/m^3)^{-1}$**	N/A	Chemical-specific	Chemical-specific
[AT_c] ATc	Averaging Time for carcinogens (yr)	N/A	70	70
[IF_{adj}]	**[Inhalation Factor[5] (m^3-yr/kg-hr)]**	**[N/A]**	**[0.4]**	**[0.4]**
AED	**Combined Age-Dependent adjustment Factor and Exposure Duration (yr)[4]**	**N/A**	**76**	**N/A**

Notes: Modified from USEPA Region III Risk-based Concentration Table, dated October 20, 1995.

N/A = Not Applicable

[1] Residential exposure to systemic toxicants is based on adult exposure, consistent with USEPA (1991).

[2] Residential exposure to carcinogens is based on combined child and adult exposure.

[[3] In cases where the inhalation RfD or CSF is based on absorbed dose, this factor can be applied in the exposure algorithm.]

[4]3 Default Transfer Factor is as presented in USEPA's RAGS, Part B.

[5]**[The inhalation 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 = 0.5 m^3/hr, BW_c = 15 kg, ED_a = 24 yr, IR_a = 0.625 m^3/hr, and BW_a = 70 kg. The inhalation factor for the nonresidential scenario is calculated using the equation $IF_{adj} = ED \times IR/BW$, where ED = 25 yr, IR = 1.25 m^3/hr and BW = 70 kg] The Combined Age-Dependent Adjustment Factor and Exposure Duration (AED) is calculated using the equation $AED = ADAF_{<2} \times ED_{<2} + ADAF_{2\text{-}16} \times ED_{2\text{-}16} + ADAF_{>16} \times ED_{>16}$ where $ADAF_{<2}$ = 10, $ED_{<2}$ + 2 yr, $ADAF_{2\text{-}16}$ = 3, $ED_{2\text{-}16}$ = 14 yr, $ADAF_{>16}$ = 1, $ED_{>16}$ = 14 yr.**

§ 250.308. Soil to groundwater pathway numeric values.

(a) A person may use the soil-to-groundwater pathway numeric values listed in Appendix A, **[Table] Tables** 3B **and 4B**, as developed using the methods contained in paragraph (1), (2) or (4), may use a concentration in soil at the site which does not produce a leachate in excess of the MSC for groundwater contained in Appendix A, Tables 1 and 2, when subjected to the Synthetic Precipitation Leaching Procedure (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the U. S. EPA), or may use the soil-to-groundwater pathway soil buffer criteria in subsection (b) or may use the soil-to-groundwater pathway equivalency demonstration in subsection (d).

* * * * *

Subchapter D. Site-Specific Standard

§ 250.407. Point of compliance.

* * * * *

(e) **[For attainment of soil-to-groundwater standards in both residential and nonresidential areas, the point of compliance is throughout the soil column.**

(f) **]** For the emission of regulated substances to outdoor air, the point of compliance for the air quality standard shall be as specified in the air quality regulations. See Article III (relating to air resources).

Subchapter F. Exposure And Risk Determinations

§ 250.605. Sources of toxicity information.

(a) For site-specific standards, the person shall use appropriate reference doses **[and], 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 **[or], reference concentrations,** cancer slope factors **or unit risk factors**:

* * * * *

(2) **[Health Effects Assessment Summary Tables (HEAST).**

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

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

(5) California EPA, California Cancer Potency Factors.

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

(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.

* * * * *

Subchapter G. Demonstration of Attainment

§ 250.704. General attainment requirements for groundwater.

* * * * *

(d) For statistical methods under § 250.707(b)(2)(i) (relating to statistical tests), the demonstration of attainment for groundwater shall be based upon at least eight consecutive quarters of groundwater data**, which may include characterization data**. As an alternative, the Department may accept **[four consecutive] fewer** quarterly sampling events **[or less]** with written approval from the Department under the following conditions:

* * * * *

§ 250.707. Statistical tests.

* * * * *

(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 **[shall] must** meet the criteria in subsection (d).

(1) For soil attainment determination at each distinct area of contamination, subparagraph (i), (ii) or (iii) 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).

* * * * *

(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:

* * * * *

(B) For sites not covered by clause (A), including all sites being remediated under an NIR under this chapter, samples shall be taken from the bottom and sidewalls of the excavation in a biased fashion that concentrates on areas where any remaining contamination above the Statewide health standard would most likely be found. The samples shall be taken from these suspect areas based on visual observation and the use of field instruments. If a sufficient number of samples has been collected from all suspect locations and the minimum number of samples has not been collected, or if there are no suspect areas, the locations to meet the minimum number of samples shall be based on a random procedure. The number of sample points required shall be determined in the following way:

* * * * *

(VI) For sites where there is a release to surface soils resulting in excavation of 50 cubic yards or

less of contaminated soil, samples shall be collected as described in this clause, except that two samples shall be collected.

(C) All sample results shall be equal to or less than the applicable Statewide health MSC as determined using Tables 1—4 and 6 in Appendix A.

[(iv) For sites where there is a release to surface soils resulting in excavation of 50 cubic yards or less of contaminated soil, samples shall be collected as described in subparagraph (iii)(B), except that two samples shall be collected.]

* * * * *

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
ACENAPHTHENE	83-32-9	2,200 G	3,800 S	3,800 S	3,800 S	3,800 S	3,800 S
ACENAPHTHYLENE	208-96-8	2,200 G	6,100 G	16,000 S	16,000 S	16,000 S	16,000 S
ACEPHATE	30560-19-1	76 G	300 G	7,600 G	30,000 G	76 G	300 G
ACETALDEHYDE	75-07-0	19 N	[52] 79 N	1,900 N	[5,200] N 7,900	19 N	[52] 79 N
ACETONE	67-64-1	[3,700] G 33,000	[10,000] G 92,000	[370,000] G 3,300,000	[1,000,000] G 9,200,000	[37,000] G 330,000	[100,000] G 920,000
ACETONITRILE	75-05-8	[170] 130 N	[350] 530 N	[17,000] N 13,000	[35,000] N 53,000	[1,700] N 1,300	[3,500] N 5,300
ACETOPHENONE	98-86-2	3,700 G	10,000 G	370,000 G	1,000,000 G	3,700 G	10,000 G
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.17 G	0.68 G	17 G	68 G	170 G	680 G
ACROLEIN	107-02-8	[0.055] 0.042 N	[0.12] 0.18 N	[5.5] 4.2 N	[12] 18 N	[0.55] 0.42 N	[1.2] 1.8 N
ACRYLAMIDE	79-06-1	[0.033] 0.038 N	[0.14] 0.19 N	[3.3] 3.8 N	[14] 19 N	[0.033] N 0.038	[0.14] 0.19 N
ACRYLIC ACID	79-10-7	[2.8] 2.1 N	[5.8] 8.8 N	[280] 210 N	[580] 880 N	[280] 210 N	[580] 880 N
ACRYLONITRILE	107-13-1	[0.63] 0.72 N	[2.7] 3.7 N	[63] 72 N	[270] 370 N	[63] 72 N	[270] 370 N
ALACHLOR	15972-60-8	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB	116-06-3	[7] 3 M	[7] 3 M	[700] 300 M	[700] 300 M	[7,000] M 3,000	[7,000] M 3,000
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	[0.0087] [N] 0.039 G	[0.037] [N] 0.15 G	[0.87] 3.9 [N] G	[3.7] 15 [N] G	[0.87] 20 [N] S	[3.7] 20 [N] S
ALLYL ALCOHOL	107-18-6	[49] 0.63 N	[100] 2.6 N	[4,900] 63 N	[10,000] 260 N	[4,900] 63 N	[10,000] 260 N
AMETRYN	**834-12-8**	**60 H**	**60 H**	**6,000 H**	**6,000 H**	**60 H**	**60 H**
AMINOBIPHENYL, 4-	92-67-1	0.031 G	0.12 G	3.1 G	12 G	31 G	120 G
AMITROLE	61-82-5	0.7 G	2.8 G	70 G	280 G	700 G	2,800 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	[2.8] 2.1 N	[5.8] 8.8 N	[280] 210 N	[580] 880 N	[2.8] 2.1 N	[5.8] 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**	**110 G**	**310 G**	**11,000 G**	**31,000 G**	**110 G**	**310 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
BAYGON (PROPOXUR)	114-26-1	3 H	3 H	300 H	300 H	3,000 H	3,000 H
BENOMYL	17804-35-2	1,800 G	2,000 S	2,000 S	2,000 S	1,800 G	2,000 S
BENTAZON	25057-89-0	[1,100] 200 [G] H	[3,100] 200 [G] H	[110,000] [G] 20,000 H	[310,000] [G] 20,000 H	[1,100] 200 [G] H	[3,100] 200 [G] H
BENZENE	71-43-2	5 M	5 M	500 M	500 M	500 M	500 M
BENZIDINE	92-87-5	[0.0029] G 0.00093	0.011 G	[0.29] 0.093 G	1.1 G	[2.9] 0.93 G	11 G
BENZO[A]ANTHRACENE	56-55-3	[0.9] 0.29 G	3.6 G	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	[0.9] 0.29 G	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	0.55 S	0.55 S	0.55 S	0.55 S	0.55 S	0.55 S
BENZOIC ACID	65-85-0	150,000 G	410,000 G	2,700,000 S	2,700,000 S	150,000 G	410,000 G
BENZOTRICHLORIDE	98-07-7	0.051 G	0.2 G	5.1 G	20 G	51 G	200 G
BENZYL ALCOHOL	100-51-6	[11,000] G 18,000	[31,000] G 51,000	[1,100,000] G 1,800,000	[3,100,000] G 5,100,000	[11,000] G 18,000	[31,000] G 51,000
BENZYL CHLORIDE	100-44-7	[0.87] 1 N	[3.7] 5.1 N	[87] 100 N	[370] 510 N	[87] 100 N	[370] 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	0.41 G	10 G	41 G	100 G	410 G
BHC, BETA-	319-85-7	0.37 G	1.4 G	37 G	100 S	100 S	100 S
[BHC, DELTA-]	**[319-86-8]**	**[22] [G]**	**[61] [G]**	**[2,200] [G]**	**[6,100] [G]**	**[8,000] [S]**	**[8,000] [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	1,800 G	5,100 G	7,200 S	7,200 S	7,200 S	7,200 S
BIS(2-CHLOROETHOXY)METHANE	**111-91-1**	**110 G**	**310 G**	**11,000 G**	**31,000 G**	**110 G**	**310 G**
BIS(2-CHLOROETHYL)ETHER	111-44-4	[0.13] 0.15 N	[0.55]0.76 N	[13] 15 N	[55] 76 N	[13] 15 N	[55] 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	[0.00069] N 0.00079	[0.0029] N 0.004	[0.069] N 0.079	[0.29] 0.4 N	[0.069] N 0.079	[0.29] 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	1,800 G	5,100 G	120,000 S	120,000 S	120,000 S	120,000 S
BROMACIL	314-40-9	[80] 70 H	[80] 70 H	[8,000] H 7,000	[8,000] H 7,000	[80] 70 H	[80] 70 H
BROMOCHLOROMETHANE	74-97-5	90 H	90 H	9,000 H	9,000 H	90 H	90 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
BROMODICHLOROMETHANE	75-27-4	[100] 80 M	[100] 80 M	[10,000] M 8,000	[10,000] M 8,000	[100] 80 M	[100] 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	730 G	2,000 G	73,000 G	130,000 S	730 G	2,000 G
BROMOXYNIL OCTANOATE	1689-99-2	80 S	80 S	80 S	80 S	80 S	80 S
BUTADIENE, 1,3-	106-99-0	[0.15] 0.19 [N] G	[0.65] 0.76 [N] G	[15] 19 [N] G	[65] 76 [N] G	[0.15] 19 [N] G	[0.65] 76 [N] G
BUTYL ALCOHOL, N-	71-36-3	[970] 3,700 [N] G	[2,000] [N] 10,000 G	[97,000] [N] 370,000 G	[200,000] [N] 1,000,000 G	[9,700] [N] 37,000 G	[20,000] [N] 100,000 G
BUTYLATE	2008-41-5	[350] 400 H	[350] 400 H	[35,000] H 40,000	[35,000] H 40,000	[350] 400 H	[350] 400 H
BUTYLBENZENE, N-	104-51-8	1,500 G	4,100 G	15,000 S	15,000 S	1,500 G	4,100 G
BUTYLBENZENE, SEC-	135-98-8	1,500 G	4,100 G	17,000 S	17,000 S	1,500 G	4,100 G
BUTYLBENZENE, TERT-	98-06-6	1,500 G	4,100 G	30,000 S	30,000 S	1,500 G	4,100 G
BUTYLBENZYL PHTHALATE	85-68-7	[2,700] 350 [S] G	[2,700] [S] 1,400 G	2,700 S	2,700 S	2,700 S	2,700 S
CAPTAN	133-06-2	[190] 290 G	500 S	500 S	500 S	500 S	500 S
CARBARYL	63-25-2	[700] 3,700 [H] G	[700] [H] 10,000 G	[70,000] [H] 120,000 S	[70,000] [H] 120,000 S	120,000 S	120,000 S
CARBAZOLE	86-74-8	33 G	130 G	1,200 S	1,200 S	1,200 S	1,200 S
CARBOFURAN	1563-66-2	40 M	40 M	4,000 M	4,000 M	40 M	40 M
CARBON DISULFIDE	75-15-0	[1,900] 1,500 N	[4,100] N 6,200	[190,000] N 150,000	[410,000] N 620,000	[1,900] N 1,500	[4,100] N 6,200
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	[140,000] N 110,000	[290,000] N 440,000	1,400,000 S	1,400,000 S	[140,000] N 110,000	[290,000] N 440,000
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	[2.8] 2.1 N	[5.8] 8.8 N	[280] 210 N	[580] 880 N	[280] 210 N	[580] 880 N
CHLOROACETOPHENONE, 2-	532-27-4	[0.31] 1.1 G	[0.88] 3.1 G	[31] 110 G	[88] 310 G	[310] 1,100 G	[880] 3,100 G
CHLOROANILINE, P-	106-47-8	[150] 3.3 G	[410] 13 G	[15,000] 330 G	[41,000] G 1,300	[150] 3.3 G	[410] 13 G
CHLOROBENZENE	108-90-7	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
CHLOROBENZILATE	510-15-6	[2.4] 6 G	[9.6] 24 G	[240] 600 G	[960] 2,400 G	[2,400] G 6,000	[9,600] G 13,000
CHLOROBUTANE, 1-	109-69-3	[15,000] G 1,500	[41,000] G 4,100	[680,000] [S] 150,000 G	[680,000] [S] 410,000 G	[15,000] G 1,500	[41,000] G 4,100
CHLORODIBROMOMETHANE	124-48-1	[100] 80 M	[100] 80 M	[10,000] M 8,000	[10,000] M 8,000	[10,000] M 8,000	[10,000] M 8,000
CHLORODIFLUOROMETHANE	75-45-6	[100] 110,000 [H] N	[100] [H] 440,000 N	[10,000] [H] 2,900,000 S	[10,000] [H] 2,900,000 S	[100] [H] 110,000 N	[100] [H] 440,000 N
CHLOROETHANE	75-00-3	230 G	900 G	23,000 G	90,000 G	23,000 G	90,000 G
CHLOROFORM	67-66-3	[100] 80 M	[100] 80 M	[10,000] M 8,000	[10,000] M 8,000	[1,000] 800 M	[1,000] 800 M
CHLORONAPHTHALENE, 2-	91-58-7	2,900 G	8,200 G	12,000 S	12,000 S	2,900 G	8,200 G
CHLORONITROBENZENE, P-	100-00-5	37 G	[140] 100 G	3,700 G	[14,000] G 10,000	37 G	[140] 100 G
CHLOROPHENOL, 2-	95-57-8	40 H	40 H	4,000 H	4,000 H	40 H	40 H
CHLOROPRENE	126-99-8	[19] 15 N	[41] 62 N	[1,900] N 1,500	[4,100] N 6,200	[1,900] N 1,500	[4,100] N 6,200
CHLOROPROPANE, 2-	75-29-6	[280] 210 N	[580] 880 N	[28,000] N 21,000	[58,000] N 88,000	[280] 210 N	[580] 880 N
CHLOROTHALONIL	1897-45-6	[60] 210 G	[240] 600 [G] S	600 S	600 S	[60] 210 G	[240] 600 [G] S
CHLOROTOLUENE, O-	95-49-8	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLOROTOLUENE, P-	**95-49-8**	**100 H**	**100 H**	**10,000 H**	**10,000 H**	**100 H**	**100 H**
CHLORPYRIFOS	2921-88-2	[20] 2 H	[20] 2 H	[1,100] 200 [S] H	[1,100] 200 [S] H	[20] 2 H	[20] 2 H
CHLORSULFURON	64902-72-3	1,800 G	5,100 G	[130,000] [S] 180,000 G	[130,000] S 190,000	1,800 G	5,100 G
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	[400] 70 H	[400] 70 H	500 S	500 S	500 S	500 S
CHRYSENE	218-01-9	1.9 S	1.9 S	1.9 S	1.9 S	1.9 S	1.9 S
CRESOLS	1319-77-3	180 G	510 G	18,000 G	51,000 G	18,000 G	51,000 G
CRESOL, 4,6-DINOTRO-O-	**534-52-1**	**3.7 G**	**10 G**	**370 G**	**1,000 G**	**3,700 G**	**10,000 G**
CRESOL, 0- (METHYLPHENOL, 2-)	95-48-7	1,800 G	5,100 G	180,000 G	510,000 G	180,000 G	510,000 G
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	1,800 G	5,100 G	180,000 G	510,000 G	1,800,000 G	2,500,000 S
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	180 G	510 G	18,000 G	51,000 G	180,000 G	510,000 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
CRESOL, P-CHLORO-M-	59-50-7	180 G	510 G	18,000 G	51,000 G	180 G	510 G
CROTONALDEHYDE	4170-30-3	[0.079] 0.35 [N] G	[0.34] 1.4 [N] G	[7.9] 35 [N] G	[34] 140 [N] G	[7.9] 35 [N] G	[34] 140 [N] G
CROTONALDEHYDE, TRANS-	123-73-9	[0.079] 0.35 [N] G	[0.34] 1.4 [N] G	[7.9] 35 [N] G	[34] 140 [N] G	[7.9] 35 [N] G	[34] 140 [N] G
CUMENE (ISOPROPYL BENZENE)	98-82-8	[1,100] 840 N	[2,300] 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	[49,000] 180,000 [N] G	[100,000] 510,000 [N] G	[4,900,000] 18,000,000 [N] G	[10,000,000] 37,000,000 [N] G	[49,000] 180,000 [N] G	[100,000] 510,000 [N] G
CYFLUTHRIN	68359-37-5	1 S	1 S	1 S	1 S	1 S	1 S
CYROMAZINE	66215-27-8	270 G	770 G	27,000 G	77,000 G	270 G	770 G
DDD, 4,4'-	72-54-8	[0.62] 2.8 [N] G	[2.7] 11 [N] G	[62] 160 [N] S	160 S	[62] 160 [N] S	160 S
DDE, 4,4'-	72-55-9	1.9 G	7.6 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
DIALLATE	2303-16-4	[2.5] 11 [N] G	[10] 43 [N] G	[250] 1,100 [N] G	[1,000] 4,300 [N] G	[250] 11,000 [N] G	[1,000] 40,000 [N] S
DIAMINOTOLUENE, 2,4-	95-80-7	[0.21] 0.17 G	[0.81] 0.68 G	[21] 17 G	[81] 68 G	[210] 170 G	[810] 680 G
DIAZINON	333-41-5	[0.6] 1 H	[0.6] 1 H	[60] 100 H	[60] 100 H	[0.6] 1 H	[0.6] 1 H
DIBENZO[A,H]ANTHRACENE	53-70-3	[0.09] 0.029 G	0.36 G	0.6 S	0.6 S	0.6 S	0.6 S
DIBENZOFURAN	132-64-9	37 G	100 G	3,700 S	4,500 S	4,500 S	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	370 G	1,000 G	20,000 S	20,000 S	370 G	1,000 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	[97] 370 [N] G	[200] 1,000 [N] G	[9,700] 37,000 [N] G	[20,000] 100,000 [N] G	[9,700] 37,000 [N] G	[20,000] 100,000 [N] G
DIBUTYL PHTHALATE, N-	84-74-2	3,700 G	10,000 G	370,000 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	76-43-6	60 M	60 M	6,000 M	6,000 M	60 M	60 M
DICHLORO-2-BUTENE, 1,4-	764-41-0	[0.016] 0.012 N	[0.069] 0.06 N	[1.6] 1.2 N	[6.9] 6 N	[0.016] 0.012 N	[0.069] 0.06 N

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
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	1.5 G	5.8 G	150 G	580 G	1,500 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	[27] 31 N	[110] 160 N	[2,700] 3,100 N	[11,000] 16,000 N	[270] 310 N	[1,100] 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	[7,000] 70,000 M	[7,000] 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	6.6 G	26 G	660 G	2,600 G	660 G	2,600 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	[0.52] 2.3 [N] G	[2.2] 9 [N] G	[52] 230 [N] G	[220] 900 [N] G	[0.52] 2.3 [N] G	[2.2] 9 [N] G
DICYCLOPENTADIENE	77-73-6	[0.55] 15 N	[1.2] 62 N	[55] 1,500 N	[120] 6,200 N	[0.55] 15 N	[1.2] 62 N
DIELDRIN	60-57-1	0.041 G	0.16 G	4.1 G	16 G	41 G	160 G
DIETHYL PHTHALATE	84-66-2	[5,000] [H] 29,000 G	[5,000] [H] 82,000 G	[500,000] [H] 1,100,000 S	[500,000] [H] 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	7.3 G	20 G	730 G	2,000 G	7,300 G	20,000 G
DIMETHOXYBENZIDINE, 3,3-	119-90-4	47 G	190 G	4,700 G	19,000 G	47,000 G	60,000 S
DIMETHRIN	**70-38-2**	**36 S**	**36 S**	**36 S**	**36 S**	**36 S**	**36 S**
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	0.14 G	0.57 G	14 G	57 G	140 G	570 G
DIMETHYLANILINE, N,N-	121-69-7	73 G	200 G	7,300 G	20,000 G	7,300 G	20,000 G
DIMETHYLBENZIDINE, 3,3-	119-93-7	[0.072] 0.06 G	[0.28] 0.24 G	[7.2] 6 G	[28] 24 G	[72] 60 G	[280] 240 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
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	730 G	2,000 G	73,000 G	200,000 G	730,000 G	2,000,000 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	[19] 73 [N] G	[41] 200 [N] G	[1,900] [N] 7,300 G	[4,100] [N] 20,000 G	[190] 73,000 [N] G	[410] [N] 200,000 G
DINITROTOLUENE, 2,4-	121-14-2	2.1 G	8.4 G	210 G	840 G	2,100 G	8,400 G
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	37 G	100 G	3,700 G	10,000 G	37,000 G	100,000 G
DINOSEB	88-85-7	7 M	7 M	700 M	700 M	[700] 7,000 M	[700] 7,000 M
DIOXANE, 1,4-	123-91-1	[5.6] 6.4 N	[24] 32 N	[560] 640 N	[2,400] N 3,200	[56] 64 N	[240] 320 N
DIPHENAMID	957-51-7	200 H	200 H	20,000 H	20,000 H	200 H	200 H
DIPHENYLAMINE	122-39-4	[200] 910 [H] G	[200] 2,600 [H] G	[20,000] [H] 91,000 G	[20,000] [H] 260,000 G	[200,000] [H] 300,000 S	[200,000] [H] 300,000 S
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.83 G	3.3 G	83 G	250 S	250 S	250 S
DIQUAT	85-00-7	20 M	20 M	2,000 M	2,000 M	20 M	20 M
DISULFOTON	298-04-4	[0.3] 0.7 H	[0.3] 0.7 H	[30] 70 H	[30] 70 H	[30] 700 H	[30] 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	[10] 73 [H] G	[10] 200 [H] G	[1,000] [H] 7,300 G	[1,000] [H] 20,000 G	[10] 73 [H] G	[10] 200 [H] G
ENDOSULFAN	115-29-7	[58] 220 [N] G	[120] 480 [N] S	480 S	480 S	480 S	480 S
ENDOSULFAN I (APLHA)	959-98-8	220 G	500 S	500 S	500 S	220 G	500 S
ENDOSULFAN II (BETA)	33213-65-9	220 G	450 S	450 S	450 S	220 G	450 S
ENDOSULFAN SULFATE	1031-07-8	120 S	120 S	120 S	120 S	120 S	120 S
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	[2.8] 2.1 N	[5.8] 8.8 N	[280] 210 N	[580] 880 N	[280] 210 N	[580] 880 N
ETHEPHON	16672-87-0	180 G	510 G	18,000 G	51,000 G	180 G	510 G
ETHION	563-12-2	18 G	51 G	850 S	850 S	18 G	51 G
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[550] 420 N	[1,200] N 1,800	[55,000] N 42,000	[120,000] N 180,000	[55,000] N 42,000	[120,000] N 180,000
ETHYL ACETATE	141-78-6	[8,700] [N] 33,000 G	[18,000] [N] 92,000 G	[870,000] [N] 3,300,000 G	[1,800,000] [N] 9,200,000 G	[870,000] [N] 3,300,000 G	[1,800,000] [N] 9,200,000 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
ETHYL ACRYLATE	140-88-5	[3.1] 14 [N] G	[13] 54 [N] G	[310] 1,400 [N] G	[1,300] [N] 5,400 G	[310] 1,400 [N] G	[1,300] [N] 5,400 G
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	910 G	2,600 G	91,000 G	260,000 G	910 G	2,600 G
ETHYL ETHER	60-29-7	[1,900] 7,300 [N] G	[4,100] [N] 20,000 G	[190,000] [N] 730,000 G	[410,000] [N] 2,000,000 G	[1,900] [N] 7,300 G	[4,100] [N] 20,000 G
ETHYL METHACRYLATE	97-63-2	[870] 3,300 [N] G	[1,800] [N] 9,200 G	[87,000] [N] 330,000 G	[180,000] [N] 920,000 G	[870] 3,300 [N] G	[1,800] [N] 9,200 G
ETHYLENE GLYCOL	107-21-1	14,000 H	14,000 H	1,400,000 H	1,400,000 H	1,400,000 H	1,400,000 H
ETHYLENE THIOUREA (ETU)	96-45-7	[3] 2.9 [H] G	[3] 8.2 [H] G	[300] 290 [H] G	[300] 820 [H] G	[3,000] [H] 2,900 G	[3,000] [H] 8,200 G
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.37 G	1 G	37 G	100 G	0.37 G	1 G
FENAMIPHOS	22224-92-6	[2] 0.7 H	[2] 0.7 H	[200] 70 H	[200] 70 H	[2] 0.7 H	[2] 0.7 H
FENVALERATE (PYDRIN)	51630-58-1	85 S	85 S	85 S	85 S	85 S	85 S
FLUOMETURON (FLUOMETRON IN EPA FEB 96)	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	1,500 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	[19,000] 6.3 N	[41,000] 26 N	[1,900,000] 630 N	[4,100,000] 2,600 N	[190,000] 63 N	[410,000] 260 N
FOSETYL-AL	39148-24-8	110,000 G	310,000 G	11,000,000 G	31,000,000 G	110,000 G	310,000 G
FURAN	110-00-9	[9.7] 37 [N] G	[20] 100 [N] G	[970] 3,700 [N] G	[2,000] [N] 10,000 G	[970] 3,700 [N] G	[2,000] [N] 10,000 G
FURFURAL	98-01-1	110 [G] N	[290] 310 [N] G	11,000 [G] N	[29,000] [N] 31,000 G	110 [G] N	[290] 310 [N] G
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	[1] 8.5 [H] G	[1] 33 [H] G	[100] 850 [H] G	[100] 2,900 [H] S	[1,000] [H] 2,900 S	[1,000] [H] 2,900 S
HEXACHLOROCYCLOPENTADIENE	77-47-4	50 M	50 M	1,800 S	1,800 S	1,800 S	1,800 S

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
HEXACHLOROETHANE	67-72-1	1 H	1 H	100 H	100 H	100 H	100 H
HEXANE	110-54-3	[550] 1,500 N	[1,200] [N] 6,100 G	9,500 S	9,500 S	[550] 1,500 N	[1,200] [N] 6,100 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	[0.0088] 0.01 N	[0.038] N 0.051	[0.88] 1 N	[3.8] 5.1 N	[0.088] 0.1 N	[0.38] 0.51 N
HYDROQUINONE	123-31-9	[1,500] 12 G	[4,100] 46 G	[150,000] G 1,200	[410,000] G 4,600	[1,500,000] G 12,000	[4,100,000] G 46,000
INDENO[1,2,3-CD]PYRENE	193-39-5	[0.9] 0.29 G	3.6 G	[62] 29 [S] G	62 S	62 S	62 S
IPRODIONE	36734-19-7	1,500 G	4,100 G	13,000 S	13,000 S	1,500 G	4,100 G
ISOBUTYL ALCOHOL	78-83-1	[2,900] [N] 11,000 G	[6,100] [N] 31,000 G	[290,000] [N] 1,100,000 G	[610,000] [N] 3,100,000 G	[290,000] [N] 1,100,000 G	[610,000] [N] 3,100,000 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	0.041 G	0.16 G	4.1 G	16 G	41 G	160 G
MALATHION	121-75-5	100 H	100 H	10,000 H	10,000 H	[10,000] H 100,000	[10,000] H 100,000
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	180 G	510 G	18,000 G	23,000 S	180 G	510 G
MERPHOS OXIDE	78-48-8	1.1 G	3.1 G	110 G	310 G	1.1 G	3.1 G
METHACRYLONITRILE	126-98-7	[1.9] 1.5 N	[4.1] 6.2 N	[190] 150 N	[410] 620 N	[1.9] 1.5 N	[4.1] 6.2 N
METHAMIDOPHOS	10265-92-6	1.8 G	5.1 G	180 G	510 G	1.8 G	5.1 G
METHANOL	67-56-1	[4,900] 8,400 N	[10,000] N 35,000	[490,000] N 840,000	[1,000,000] N 3,500,000	[490,000] N 840,000	[1,000,000] N 3,500,000
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	[37] 42 [G] N	[100] 180 [G] N	[3,700] [G] 4,200 N	[10,000] [G] 18,000 N	[37] 42 [G] N	[100] 180 [G] N
METHYL ACETATE	79-20-9	37,000 G	100,000 G	3,700,000 G	10,000,000 G	37,000 G	100,000 G
METHYL ACRYLATE	96-33-3	1,100 G	3,100 G	110,000 G	310,000 G	110,000 G	310,000 G
METHYL CHLORIDE	74-87-3	[3] 30 H	[3] 30 H	[300] 3,000 H	[300] 3,000 H	[300] 3,000 H	[300] 3,000 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
METHYL ETHYL KETONE	78-93-3	[2,800] 4,000 [N] H	[5,800] [N] 4,000 H	[280,000] [N] 400,000 H	[580,000] [N] 400,000 H	[280,000] [N] 400,000 H	[580,000] [N] 400,000 H
METHYL ISOBUTYL KETONE	108-10-1	[190] 2,900 [N] G	4[10] 8,200 [N] G	[19,000] [N] 290,000 G	[41,000] [N] 820,000 G	[19,000] [N] 290,000 G	[41,000] [N] 820,000 G
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 (2-HEXANONE)	**591-78-6**	11 N	44 N	1,100 N	4,400 N	11 N	44 N
METHYL METHACRYLATE	80-62-6	[1,900] 1,500 N	[4,100] N 6,200	[190,000] N 150,000	[410,000] N 620,000	[190,000] N 150,000	[410,000] N 620,000
METHYL METHANESULFONATE	66-27-3	6.7 G	26 G	670 G	2,600 G	6.7 G	26 G
METHYL PARATHION	298-00-0	[2] 1 H	[2] 1 H	[200] 100 H	[200] 100 H	[200] 1,000 H	[200] 1,000 H
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	[220] 84 [G] N	[610] 350 [G] N	[22,000] [G] 8,400 N	[61,000] [G] 35,000 N	[220] 84 [G] N	[610] 350 [G] N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	20 [H]	20 [H]	2,000 [H]	2,000 [H]	200 [H]	200 [H]
METHYLCHLOROPHENOXYACETIC 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	[5.1] 2.2 G	[20] 26 G	[510] 220 G	[2,000] G 2,600	[5.1] 2.2 G	[20] 26 G
METHYLNAPHTHALENE, 2-	91-57-6	[730] 150 G	[2,000] 410 G	[25,000] [S] 15,000 G	25,000 S	[730] 150 G	[2,000] 410 G
METHYLSTYRENE, ALPHA	98-83-9	[680] 2,600 [N] G	[1,400] [N] 7,200 G	[68,000] [N] 260,000 G	[140,000] [N] 560,000 S	[680] 2,600 [N] G	[1,400]] [N] 7,200 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
MONOCHLOROACETIC ACID	**79-11-8**	70 H	70 H	7,000 H	7,000 H	70 H	70 H
NAPHTHALENE	91-20-3	100 H	100 H	10,000 H	10,000 H	30,000 S	30,000 S
NAPHTHYLAMINE, 1-	134-32-7	0.37 G	1.4 G	37 G	140 G	370 G	1,400 G
NAPHTHYLAMINE, 2-	91-59-8	0.37 G	1.4 G	37 G	140 G	370 G	1,400 G
NAPROPAMIDE	15299-99-7	3,700 G	10,000 G	70,000 S	70,000 S	3,700 G	10,000 G
NITROANILINE, M-	99-09-2	[2.1] 11 G	[5.8] 31 G	[210] 1,100 G	[580] 3,100 G	[2.1] 11 G	[5.8] 31 G
NITROANILINE, O-	88-74-4	[2.1] 110 G	[5.8] 310 G	[210] 11,000 G	[580] 31,000 G	[2.1] 110 G	[5.8] 310 G
NITROANILINE, P-	100-01-6	[2.1] 33 G	[5.8] 130 G	[210] 3,300 G	[580] 13,000 G	[2.1] 33 G	[5.8] 130 G
NITROBENZENE	98-95-3	[18] 73 G	[51] 200 G	[1,800] G 7,300	[5,100] G 20,000	[18,000] G 73,000	[51,000] G 200,000
NITROGUANIDINE	**556-88-7**	700 H	700 H	70,000 H	70,000 H	700 H	700 H
NITROPHENOL, 2-	88-75-5	290 G	820 G	29,000 G	82,000 G	290,000 G	820,000 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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
NITROPHENOL, 4-	100-02-7	60 H	60 H	6,000 H	6,000 H	60,000 H	60,000 H
NITROPROPANE, 2-	79-46-9	[0.016] 0.018 N	[0.068] N 0.093	[1.6] 1.8 N	[6.8] 9.3 N	[0.16] 0.18 N	[0.68] 0.93 N
NITROSODIETHYLAMINE, N-	55-18-5	[0.001] N 0.00045	[0.0043] N 0.0058	[0.1] 0.045 N	[0.43] 0.58 N	[0.01] N 0.0045	[0.043] N 0.058
NITROSODIMETHYLAMINE, N-	62-75-9	[0.0031] N 0.0014	[0.013] N 0.018	[0.31] 0.14 N	[1.3] 1.8 N	[0.031] N 0.014	[0.13] 0.18 N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	[0.027] 0.12 [N] G	[0.11] 0.48 [N] G	[2.7] 12 [N] G	[11] 48 [N] G	[2.7] 120 [N] G	[11] 480 [N] G
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.094 G	0.37 G	9.4 G	37 G	94 G	370 G
NITROSODIPHENYLAMINE, N-	86-30-6	130 G	530 G	13,000 G	35,000 S	35,000 S	35,000 S
NITROSO-N-ETHYLUREA, N-	759-73-9	[0.0047] G 0.008	[0.019] G 0.096	[0.47] 0.8 G	[1.9] 9.6 G	[0.47] 8 G	[1.9] 96 G
OCTYL PHTHALATE, DI-N-	117-84-0	[730] 1,500 G	[2,000] [G] 3,000 S	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	220 G	610 G	20,000 S	20,000 S	220 G	610 G
PCB-1016 (AROCLOR)	12674-11-2	2.6 G	7.2 G	250 S	250 S	2.6 G	7.2 G
PCB-1221 (AROCLOR)	11104-28-2	[1.3] 0.33 G	[5.2] 1.3 G	[130] 33 G	[520] 130 G	[1.3] 0.33 G	[5.2] 1.3 G
PCB-1232 (AROCLOR)	11141-16-5	[1.3] 0.33 G	[5.2] 1.3 G	[130] 33 G	[520] 130 G	[1.3] 0.33 G	[5.2] 1.3 G
PCB-1242 (AROCLOR)	53469-21-9	[1.3] 0.33 G	[5.2] 1.3 G	[100] 33 [S] G	100 S	[1.3] 0.33 G	[5.2] 1.3 G
PCB-1248 (AROCLOR)	12672-29-6	[0.37] 0.33 G	[1.4] 1.3 G	[37] 33 G	54 S	[0.37] 0.33 G	[1.4] 1.3 G
PCB-1254 (AROCLOR)	11097-69-1	[0.37] 0.33 G	[1.4] 1.3 G	[37] 33 G	57 S	[0.37] 0.33 G	[1.4] 1.3 G
PCB-1260 (AROCLOR)	11096-82-5	[1.1] 0.33 G	[4.3] 1.3 G	[80] 33 [S] G	80 S	[1.1] 0.33 G	[4.3] 1.3 G
PEBULATE	1114-71-2	1,800 G	5,100 G	92,000 S	92,000 S	1,800 G	5,100 G
PENTACHLOROBENZENE	608-93-5	29 G	82 G	740 S	740 S	740 S	740 S
PENTACHLOROETHANE	**76-01-7**	**7.3 G**	**29 G**	**730 G**	**2,900 G**	**7.3 G**	**29 G**
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
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

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
PHENOL	108-95-2	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
PHENYL MERCAPTAN	**109-98-5**	**0.37 G**	**1 G**	**37 G**	**100 G**	**0.37 G**	**1 G**
PHENYLENEDIAMINE, M-	108-45-2	220 G	610 G	22,000 G	61,000 G	220,000 G	610,000 G
PHENYLPHENOL, 2-	90-43-7	[340] 350 G	[1,300] 1,400 G	[34,000] 35,000 G	[130,000] 140,000 G	[340,000] 350,000 G	700,000 S
PHORATE	298-02-2	[1.9] 7.3 [N] G	[4.1] 20 [N] G	[190] 730 [N] G	[410] 2,000 [N] G	[1.9] 7.3 [N] G	[4.1] 20 [N] G
PHTHALIC ANHYDRIDE	85-44-9	73,000 G	200,000 G	6,200,000 S	6,200,000 S	6,200,000 S	6,200,000 S
PICLORAM	1918-02-1	500 M	500 M	50,000 M	50,000 M	500 M	500 M
POLYCHLORINATED BIPHENYLS (PCBS)	1336-36-3	0.5 M	0.5 M	50 M	50 M	0.5 M	0.5 M
PROMETON	**1610-18-0**	**100 H**	**100 H**	**10,000 H**	**10,000 H**	**100 H**	**100 H**
PRONAMIDE	23950-58-5	[50] 2,700 [H] G	[50] 7,700 [H] G	[5,000] [H] 15,000 S	[5,000] [] S 15,000	[50] 2,700 [H] G	[50] 7,700 [H] G
PROPANIL	709-98-8	180 G	510 G	18,000 G	51,000 G	180 G	510 G
PROPANOL, 2- (ISOPROPYL ALCOHOL)	**67-63-0**	**15,000 N**	**62,000 N**	**1,500,000 N**	**6,200,000 N**	**15,000 N**	**62,000 N**
PROPAZINE	**139-40-2**	**10 H**	**10 H**	**1,000 H**	**1,000 H**	**10 H**	**10 H**
PROPHAM	122-42-9	[730] 100 [G] H	[2,000] 100 [G] H	[73,000] [G] 10,000 H	[200,000] [G] 10,000 H	[730] 100 [G] H	[2,000] 100 [G] H
PROPYLBENZENE, N-	103-65-1	1,500 G	4,100 G	52,000 S	52,000 S	1,500 G	4,100 G
PROPYLENE OXIDE	75-56-9	2.8 G	11 G	280 G	1,100 G	2.8 G	11 G
PYRENE	129-00-0	130 S	130 S	130 S	130 S	130 S	130 S
PYRIDINE	110-86-1	[9.7] 37 [N] G	[20] 100 [N] G	[970] 3,700 [N] G	[2,000] [N] 10,000 G	[97] 370 [N] G	[200] 1,000 [N] G
QUINOLINE	91-22-5	[0.055] 0.22 G	[0.22] 0.87 G	[5.5] 22 G	[22] 87 G	[55] 220 G	[220] 870 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**	**73,000 G**	**200,000 G**	**7,300,000 G**	**20,000,000 G**	**73,000 G**	**200,000 G**
RONNEL	299-84-3	1,800 G	5,100 G	40,000 S	40,000 S	1,800 G	5,100 G
SIMAZINE	122-34-9	4 M	4 M	400 M	400 M	4 M	4 M
STRYCHNINE	57-24-9	11 G	31 G	1,100 G	3,100 G	11,000 G	31,000 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

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
TERBUFOS	13071-79-9	[0.9] 0.4 H	[0.9] 0.4 H	[90] 40 H	[90] 40 H	[0.9] 0.4 H	[0.9] 0.4 H
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	11 G	31 G	580 S	580 S	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	0.3 H	0.3 H	30 H	30 H	30 H	30 H
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	[290] 1,100 [N] G	[610] 3,100 [N] G	[29,000] [N] 110,000 G	[61,000] [N] 180,000 S	[29,000] [N] 180,000 S	[61,000] [N] 180,000 S
TETRAETHYL LEAD	78-00-2	0.0037 G	0.01 G	0.37 G	1 G	3.7 G	10 G
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	[4.9] 18 [N] G	[10] 51 [N] G	[490] 1,800 [N] G	[1,000] [N] 5,100 G	[4.9] 18 [N] G	[10] 51 [N] G
TETRAHYDROFURAN	**109-99-9**	**25 N**	**130 N**	**2,500 N**	**13,000 N**	**25 N**	**130 N**
THIOFANOX	39196-18-4	11 G	31 G	1,100 G	3,100 G	11 G	31 G
THIRAM	137-26-8	180 G	510 G	18,000 G	30,000 S	180 G	510 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	[2.8] 3.7 G	[11] 14 G	[280] 370 G	[1,100] G 1,400	[2.8] 3.7 G	[11] 14 G
TOLUIDINE, O	95-53-4	[2.8] 3.7 G	[11] 14 G	[280] 370 G	[1,100] G 1,400	[2,800] G 3,700	[11,000] G 14,000
TOLUIDINE, P-	106-49-0	3.5 G	14 G	350 G	1,400 G	3.5 G	14 G
TOXAPHENE	8001-35-2	3 M	3 M	300 M	300 M	3 M	3 M
TRIALLATE	2303-17-5	470 G	1,300 G	4,000 S	4,000 S	470 G	1,300 G
TRIBROMOMETHANE (BROMOFORM)	75-25-2	[100] 80 M	[100] 80 M	[10,000] M 8,000	[10,000] M 8,000	[10,000] M 8,000	[10,000] M 8,000
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	[83,000] N 63,000	170,000 S	170,000 S	170,000 S	170,000 S	170,000 S
TRICHLOROBENZENE, 1,2,4-	120-82-1	70 M	70 M	7,000 M	7,000 M	44,000 S	44,000 S
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	3,700 G	10,000 G	370,000 G	1,000,000 G	1,000,000 S	1,000,000 S
TRICHLOROPHENOL, 2,4,6-	88-06-2	[11] 37 G	[31] 100 G	[1,100] G 3,700	[3,100] G 10,000	[11,000] G 37,000	[31,000] G 100,000

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

APPENDIX A
TABLE 1 – MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN GROUNDWATER

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
TRICHLOROPHENOXYACETIC 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
TRICHLOROPHENOXYPROPIONIC 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	180 G	510 G	18,000 G	51,000 G	180 G	510 G
TRICHLOROPROPANE, 1,2,3-	96-18-4	40 H	40 H	4,000 H	4,000 H	4,000 H	4,000 H
TRICHLOROPROPENE, 1,2,3-	96-19-5	[180] 2.1 [G] N	[510] 8.8 [G] N	[18,000] 210 [G] N	[51,000] 880 [G] N	[180] 2.1 [G] N	[510] 8.8 [G] N
TRIETHYLAMINE	121-44-8	15 N	62 N	1,500 N	6,200 N	15 N	62 N
TRIFLURALIN	1582-09-8	5 H	5 H	500 H	500 H	5 H	5 H
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	[16] 15 N	[35] 62 N	[1,600] N 1,500	[3,500] N 6,200	[1,600] N 1,500	[3,500] N 6,200
TRIMETHYLBENZENE, 1,3,5-	108-67-8	[16] 13 N	[35] 53 N	[1,600] N 1,300	[3,500] N 5,300	[16] 13 N	[35] 53 N
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	5 H	5 H	500 H	500 H	5 H	5 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	[550] 420 N	[1,200] N 1,800	[55,000] N 42,000	[120,000] N 180,000	[550] 420 N	[1,200] N 1,800
VINYL BROMIDE (BROMOETHENE)	593-60-2	[1.4] 1.5 N	[5.8] 7.8 N	[140] 150 N	[580] 780 N	[14] 15 N	[58] 78 N
VINYL CHLORIDE	75-01-4	2 M	2 M	200 M	200 M	20 M	20 M
WARFARIN	81-81-2	11 G	31 G	1,100 G	3,100 G	11,000 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	1,800 G	5,100 G	10,000 S	10,000 S	1,800 G	5,100 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

APPENDIX A

Table 2 - Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Groundwater

REGULATED SUBSTANCE	CASRN	USED AQUIFERS				NON-USE AQUIFERS	
		TDS ≤ 2500		TDS > 2500			
		R	NR	R	NR	R	NR
ANTIMONY	7440-36-0	6 M	6 M	600 M	600 M	6,000 M	6,000 M
ARSENIC	7440-38-2	[50] 10 M	[50] 10 M	[5,000] 1,000 M	[5,000] 1,000 M	[50,000] M 10,000	[50,000] M 10,000
ASBESTOS (fibers/L)	12001-29-5	7,000,000 M	7,000,000 M	7,000,000 M	7,000,000 M	7,000,000 M	7,000,000 M
BARIUM AND COMPOUNDS	7440-39-3	2,000 M	2,000 M	200,000 M	200,000 M	2,000,000 M	2,000,000 M
BERYLLIUM	7440-41-7	4 M	4 M	400 M	400 M	4,000 M	4,000 M
BORON AND COMPOUNDS	7440-42-8	600 H	600 H	60,000 H	60,000 H	600,000 H	600,000 H
CADMIUM	7440-43-9	5 M	5 M	500 M	500 M	5,000 M	5,000 M
CHROMIUM (TOTAL)	7440-47-3	100 M	100 M	10,000 M	10,000 M	100,000 M	100,000 M
COBALT	7440-48-4	[730] 11 G	[2,000] 31 G	[73,000] 1,100 G	[200,000] 3,100 G	[730,000] 11,000 G	[2,000,000] 31,000 G
COPPER	7440-50-8	1,000 M	1,000 M	100,000 M	100,000 M	1,000,000 M	1,000,000 M
CYANIDE, FREE	57-12-5	200 M	200 M	20,000 M	20,000 M	200,000 M	200,000 M
FLUORIDE	**16984-48-8**	**4,000 M**	**4,000 M**	**400,000 M**	**400,000 M**	**4,000,000 M**	**4,000,000 M**
LEAD	7439-92-1	5 M	5 M	500 M	500 M	5,000 M	5,000 M
LITHIUM	**7439-93-2**	**73 G**	**200 G**	**7,300 G**	**20,000 G**	**73,000 G**	**200,000 G**
MANGANESE	**7439-96-5**	**300 H**	**300 H**	**30,000 H**	**30,000 H**	**300,000 H**	**300,000 H**
MERCURY	7439-97-6	2 M	2 M	200 M	200 M	2,000 M	2,000 M
MOLYBDENUM	**7439-98-7**	**40 H**	**40 H**	**4,000 H**	**4,000 H**	**40,000 H**	**40,000 H**
NICKEL	7440-02-0	100 H	100 H	10,000 H	10,000 H	100,000 H	100,000 H
NITRATE NITROGEN	14797-55-8	10,000 M	10,000 M	1,000,000 M	1,000,000 M	10,000,000 M	10,000,000 M
NITRITE NITROGEN	14797-65-0	1,000 M	1,000 M	100,000 M	100,000 M	1,000,000 M	1,000,000 M
PERCHLORATE	**7790-98-9**	**26 G**	**72 G**	**2,600 G**	**7,200 G**	**26,000 G**	**72,000 G**
SELENIUM	7782-49-2	50 M	50 M	5,000 M	5,000 M	50,000 M	50,000 M
SILVER	7440-22-4	100 H	100 H	10,000 H	10,000 H	100,000 H	100,000 H
[SULFATE]		**[500,000] [M]**	**[500,000] [M]**	**[50,000,000] [M]**	**[50,000,000] [M]**	**[500,000,000] M**	**[500,000,000] [M]**
THALLIUM	7440-28-0	2 M	2 M	200 M	200 M	2,000 M	2,000 M
TIN	7440-31-5	22,000 G	61,000 G	2,200,000 G	6,100,000 G	22,000,000 G	61,000,000 G
VANADIUM	7440-62-2	260 G	720 G	26,000 G	72,000 G	260,000 G	720,000 G
ZINC AND COMPOUNDS	7440-66-6	2,000 H	2,000 H	200,000 H	200,000 H	2,000,000 H	2,000,000 H

All concentrations in ug/L (except asbestos)
M = Maximum Contaminant Level
H = Lifetime Health Advisory Level
SMCL = Secondary Maximum Contaminant Level
G = Ingestion
N = Inhalation

R = Residential
NR = Nonresidential

APPENDIX A
Table 2 - Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Groundwater

SECONDARY CONTAMINANTS			
REGULATED SUBSTANCE	**CASRN**	**SMCL**	**UNITS**
ALUMINUM	7429-90-5	200	µg/L
CHLORIDE	7647-14-5	250,000	µg/L
FLUORIDE	7681-49-4	2,000	µg/L
IRON	7439-89-6	300	µg/L
MANGANESE	7439-96-5	50	µg/L
SULFATE	**7757-82-6**	**250,000**	**µg/L**

All concentrations in ug/L (except asbestos)
M = Maximum Contaminant Level
H = Lifetime Health Advisory Level
SMCL = Secondary Maximum Contaminant Level
G = Ingestion
N = Inhalation

R = Residential
NR = Nonresidential

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	170,000 G	190,000 C
ACENAPHTHYLENE	208-96-8	13,000 G	170,000 G	190,000 C
ACEPHATE	30560-19-1	880 G	9,100 G	190,000 C
ACETALDEHYDE	75-07-0	[140] 170 N	[480] 720 N	[560] 830 N
ACETONE	67-64-1	10,000 C	10,000 C	10,000 C
ACETONITRILE	75-05-8	1,100 N	[3,200] 4,800 N	[3,600] 5,500 N
ACETOPHENONE	98-86-2	10,000 C	10,000 C	10,000 C
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.7 G	21 G	190,000 C
ACROLEIN	107-02-8	0.38 N	[1.1] 1.6 N	[1.2] 1.8 N
ACRYLAMIDE	79-06-1	[4] 0.34 [G] N	[18] 1.7 [G] N	[190,000] [C] 2 N
ACRYLIC ACID	79-10-7	19 N	[53] 79 N	[60] 91 N
ACRYLONITRILE	107-13-1	[4.7] 6.6 N	[24] 33 N	[28] 38 N
ALACHLOR	15972-60-8	[220] 320 G	[990] 1,400 G	190,000 C
ALDICARB	116-06-3	220 G	2,800 G	190,000 C
ALDICARB SULFONE	**1646-88-4**	**220 G**	**2,800 G**	**190,000 C**
ALDICARB SULFOXIDE	**1646-87-3**	**220 G**	**2,800 G**	**190,000 C**
ALDRIN	309-00-2	1.1 G	4.7 G	190,000 C
ALLYL ALCOHOL	107-18-6	[330] 5.7 N	[930] 24 N	[1,100] 27 N
AMETRYN	**834-12-8**	**2,000 G**	**25,000 G**	**190,000 C**
AMINOBIPHENYL, 4-	92-67-1	0.85 G	3.8 G	190,000 C
AMITROLE	61-82-5	19 G	84 G	190,000 C
AMMONIA	7664-41-7	1,900 N	[5,300] 8,000 N	[6,100] 9,100 N
AMMONIUM SULFAMATE	7773-06-0	44,000 G	190,000 C	190,000 C
ANILINE	62-53-3	19 N	[53] 79 N	[60] 91 N
ANTHRACENE	120-12-7	66,000 G	190,000 C	190,000 C
ATRAZINE	1912-24-9	[81] 78 G	[360] 340 G	190,000 C
AZINPHOS-METHYL (GUTHION)	**86-50-0**	**660 G**	**8,400 G**	**190,000 G**
BAYGON (PROPOXUR)	114-26-1	880 G	11,000 G	190,000 C
BENOMYL	17804-35-2	11,000 G	140,000 G	190,000 C
BENTAZON	25057-89-0	6,600 G	84,000 G	190,000 C
BENZENE	71-43-2	[41] 57 N	[210] 290 N	[240] 330 N
BENZIDINE	92-87-5	[0.078] 0.018 G	0.34 G	190,000 C
BENZO[A]ANTHRACENE	56-55-3	[25] 5.7 G	110 G	190,000 C
BENZO[A]PYRENE	50-32-8	[2.5] 0.57 G	11 G	190,000 C
BENZO[B]FLUORANTHENE	205-99-2	[25] 5.7 G	110 G	190,000 C
BENZO[GHI]PERYLENE	191-24-2	13,000 G	170,000 G	190,000 C
BENZO[K]FLUORANTHENE	207-08-9	[250] 57 G	1,100 G	190,000 C
BENZOIC ACID	65-85-0	190,000 C	190,000 C	190,000 C
BENZOTRICHLORIDE	98-07-7	1.4 G	6.1 G	10,000 C
BENZYL ALCOHOL	100-51-6	10,000 C	10,000 C	10,000 C
BENZYL CHLORIDE	100-44-7	[6.4] 9 N	[33] 45 N	[38] 52 N
BETA PROPIOLACTONE	**57-57-8**	**0.11 N**	**0.56 N**	**0.64 N**
BHC, ALPHA	319-84-6	2.8 G	13 G	190,000 C
BHC, BETA-	319-85-7	9.9 G	44 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]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
[BHC, DELTA-]	[319-86-8]	[130] [G]	[1,700] [G]	[190,000] [C]
BHC, GAMMA (LINDANE)	58-89-9	[14] 16 G	[61] 72 G	190,000 C
BIPHENYL, 1,1-	92-52-4	11,000 G	140,000 G	190,000 C
BIS(2-CHLOROETHOXY)METHANE	111-91-1	660 G	8,400 G	10,000 G
BIS(2-CHLOROETHYL)ETHER	111-44-4	[0.96] 1.3 N	[5] 6.7 N	[5.7] 7.7 N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	[32] 44 N	[160] 220 N	[190] 250 N
BIS(CHLOROMETHYL)ETHER	542-88-1	[0.0051] 0.0072 N	[0.027] 0.036 N	[0.031] 0.041 N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1,300 G	5,700 G	10,000 C
BISPHENOL A	80-05-7	11,000 G	140,000 G	190,000 C
BROMACIL	314-40-9	22,000 G	190,000 C	190,000 C
BROMOCHLOROMETHANE	74-97-5	2,200 G	10,000 C	10,000 C
BROMODICHLOROMETHANE	75-27-4	[8.6] 12 N	[45] 60 N	[51] 69 N
BROMOMETHANE	74-83-9	[95] 96 N	[270] 400 N	[300] 460 N
BROMOXYNIL	1689-84-5	4,400 G	56,000 G	190,000 C
BROMOXYNIL OCTANOATE	1689-99-2	4,400 G	56,000 G	190,000 C
BUTADIENE, 1,3-	106-99-0	5.3 G	23 G	[190,000] [C] 85 N
BUTYL ALCOHOL, N-	71-36-3	[6,600] [N] 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	8,800 G	10,000 C	10,000 C
BUTYLBENZENE, SEC-	135-98-8	8,800 G	10,000 C	10,000 C
BUTYLBENZENE, TERT-	98-06-6	8,800 G	10,000 C	10,000 C
BUTYLBENZYL PHTHALATE	85-68-7	[10,000] [C] 9,400 G	10,000 C	10,000 C
CAPTAN	133-06-2	[5,100] 7,800 G	[23,000] 34,000 G	190,000 C
CARBARYL	63-25-2	22,000 G	190,000 C	190,000 C
CARBAZOLE	86-74-8	900 G	4,000 G	190,000 C
CARBOFURAN	1563-66-2	1,100 G	14,000 G	190,000 C
CARBON DISULFIDE	75-15-0	10,000 C	10,000 C	10,000 C
CARBON TETRACHLORIDE	56-23-5	[21] 30 N	[110] 150 N	[120] 170 N
CARBOXIN	5234-68-4	22,000 G	190,000 C	190,000 C
CHLORAMBEN	133-90-4	3,300 G	42,000 G	190,000 C
CHLORDANE	57-74-9	51 G	230 G	190,000 C
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	[190,000] 10,000 C	[190,000] 10,000 C	[190,000] 10,000 C
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19 N	[53] 80 N	[61] 91 N
CHLOROACETOPHENONE, 2-	532-27-4	[1.9] [G] 190,000 C	[24] [G] 190,000 C	190,000 C
CHLOROANILINE, P-	106-47-8	[880] 90 G	[11,000] 400 G	190,000 C
CHLOROBENZENE	108-90-7	[4,400] [G] 960 N	[10,000] [C] 4,000 N	[10,000] [C] 4,600 N
CHLOROBENZILATE	510-15-6	[66] 160 G	[290] 720 G	[10,000] 190,000 C
CHLOROBUTANE, 1-	109-69-3	[10,000] [C] 8,800 G	10,000 C	10,000 C
CHLORODIBROMOMETHANE	124-48-1	[12] 17 N	[61] 82 N	[70] 95 N

All concentrations in mg/kg
G - Ingestion
[H]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
CHLORODIFLUOROMETHANE	75-45-6	[190,000] C 10,000	[190,000] C 10,000	[190,000] C 10,000
CHLOROETHANE	75-00-3	6,200 G	10,000 C	10,000 C
CHLOROFORM	67-66-3	[6] 19 N	[17] 97 N	[19] 110 N
CHLORONAPHTHALENE, 2-	91-58-7	18,000 G	190,000 C	190,000 C
CHLORONITROBENZENE, P-	100-00-5	[990] 220 G	[4,400] G 2,800	190,000 C
CHLOROPHENOL, 2-	95-57-8	[330] [N] 1,100 G	[920] [N] 10,000 C	[1,100] [N] 10,000 C
CHLOROPRENE	126-99-8	130 N	[370] 560 N	[430] 640 N
CHLOROPROPANE, 2-	75-29-6	1,900 N	[5,400] N 8,000	[6,100] N 9,100
CHLOROTHALONIL	1897-45-6	[1,600] G 3,300	[7,200] G 26,000	190,000 C
CHLOROTOLUENE, O-	95-49-8	4,400 G	10,000 C	10,000 C
CHLOROTOLUENE, P-	**106-43-4**	**10,000 C**	**10,000 C**	**10,000 C**
CHLORPYRIFOS	2921-88-2	660 G	8,400 G	190,000 C
CHLORSULFURON	64902-72-3	11,000 G	140,000 G	190,000 C
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2,200 G	28,000 G	190,000 C
CHRYSENE	218-01-9	[2,500] G 570	11,000 G	190,000 C
CRESOL(S)	1319-77-3	1,100 G	10,000 C	10,000 C
CRESOL, 4,6-DINITRO-O-	**534-52-1**	**22 G**	**280 G**	**190,000 G**
CRESOL, O- (2-METHYLPHENOL)	95-48-7	[10,000] [C] 11,000 G	[10,000] [C] 140,000 G	[10,000] C 190,000
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	14,000 G	190,000 C
CRESOL, P-CHLORO-M-	59-50-7	1,100 G	14,000 G	190,000 C
CROTONALDEHYDE	4170-30-3	9.4 G	42 G	10,000 C
CROTONALDEHYDE, TRANS-	123-73-9	9.4 G	42 G	10,000 G
CUMENE **(ISOPROPYL BENZENE)**	98-82-8	[7,300] N 7,700	10,000 C	10,000 C
CYANAZINE	**21725-46-2**	**21 G**	**94 G**	**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	[10,000] [C] 70,000 G	[10,000] C 190,000
CYROMAZINE	66215-27-8	1,700 G	21,000 G	190,000 C
DDD, 4,4'-	72-54-8	75 G	330 G	190,000 C
DDE, 4,4'-	72-55-9	53 G	230 G	190,000 C
DDT, 4,4'-	50-29-3	53 G	230 G	190,000 C
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10,000 C	10,000 C	10,000 C
DIALLATE	2303-16-4	[18] 290 [N] G	[93] 1,300 [N] G	[110] [N] 10,000 C
DIAMINOTOLUENE, 2,4-	95-80-7	[5.6] 4.7 G	[25] 21 G	190,000 C
DIAZINON	333-41-5	[200] 150 G	[2,500] G 2,000	[190,000] C 10,000
DIBENZO[A,H]ANTHRACENE	53-70-3	[2.5] 0.57 G	11 G	190,000 C
DIBENZOFURAN	**132-64-9**	**220 G**	**2,800 G**	**190,000 G**

All concentrations in mg/kg
G - Ingestion
[H]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
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	[3.8] N 0.029	[11] 0.37 N	[12] 0.43 N
DIBROMOBENZENE, 1,4-	106-37-6	2,200 G	28,000 G	190,000 C
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	[0.21] [G] 0.74 N	[0.93] 3.7 [G] N	[8.6] 4.3 N
DIBROMOMETHANE	74-95-3	[670] [N] 2,200 G	[1,900] [N] 10,000 C	[2,100] [N] 10,000 C
DIBUTYL PHTHALATE, N-	84-74-2	10,000 C	10,000 C	10,000 C
DICAMBA	**1918-00-9**	**6,600 G**	**84,000 C**	**190,000 C**
DICHLOROACETIC ACID	**76-43-6**	**880 G**	**10,000 C**	**10,000 C**
DICHLORO-2-BUTENE, 1,4-	764-41-0	[91,000] N 0.11	[190,000] [C] 0.53 N	[190,000] [C] 0.61 N
DICHLORO-2-BUTENE, TRANS-1,4-	**110-57-6**	**0.1 N**	**1 N**	**1 N**
DICHLOROBENZENE, 1,2-	95-50-1	3,800 N	10,000 C	10,000 C
DICHLOROBENZENE, 1,3-	541-73-1	[6,600] G 660	[10,000] [C] 8,400 G	10,000 C
DICHLOROBENZENE, P-	106-46-7	[750] 40 [G] N	[3,300] [G] 200 N	[190,000] [C] 230 N
DICHLOROBENZIDINE, 3,3'-	91-94-1	40 G	180 G	190,000 C
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	[3,800] N 3,900	10,000 C	10,000 C
DICHLOROETHANE, 1,1-	75-34-3	[200] 280 N	[1,000] N 1,400	[1,200] N 1,600
DICHLOROETHANE, 1,2-	107-06-2	[12] 17 N	[63] 86 N	[73] 98 N
DICHLOROETHYLENE, 1,1-	75-35-4	[6.4] N 3,800	[33] [N] 10,000 C	[38] [N] 10,000 C
DICHLOROETHYLENE, CIS-1,2-	156-59-2	[670] [N] 2,200 G	[1,900] [N] 10,000 C	[2,100] [N] 10,000 C
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	[1,300] N 1,100	[3,700] N 4,800	[4,300] N 5,500
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	[680] 950 N	[3,500] N 4,700	[4,000] N 5,400
DICHLOROPHENOL, 2,4-	120-83-2	660 G	8,400 G	190,000 C
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	2,200 G	28,000 G	190,000 C
DICHLOROPROPANE, 1,2-	78-87-5	[31] 45 N	[160] 220 N	[180] 260 N
DICHLOROPROPENE, 1,3-	542-75-6	[80] 110 N	[410] 560 N	[470] 640 N
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	[2,000] [N] 6,600 G	[5,500] [N] 10,000 C	[6,300] [N] 10,000 C
DICHLORVOS	62-73-7	62 G	270 G	[190,000] C 10,000
DICYCLOPENTADIENE	77-73-6	[6,600] [G] 130 N	[84,000] [G] 550 N	[190,000] [C] 630 N
DIELDRIN	60-57-1	1.1 G	5 G	[10,000] C 190,000
DIETHANOLAMINE	**111-42-2**	**10,000 C**	**10,000 C**	**10,000 C**
DIETHYL PHTHALATE	84-66-2	10,000 C	10,000 C	10,000 C
DIFLUBENZURON	35367-38-5	4,400 G	56,000 G	190,000 C
DIISOPROPYL METHYLPHOSPHONATE	**1445-75-6**	**10,000 C**	**10,000 C**	**10,000 C**
DIMETHOATE	60-51-5	44 G	560 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]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
DIMETHOXYBENZIDINE, 3,3-	119-90-4	1,300 G	5,700 G	190,000 C
DIMETHRIN	**70-38-2**	**66,000 G**	**190,000 C**	**190,000 C**
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	3.9 G	17 G	190,000 C
DIMETHYLANILINE, N,N-	121-69-7	440 G	5,600 G	10,000 C
DIMETHYLBENZIDINE, 3,3-	119-93-7	[1.9] 1.6 G	[8.6] 7.2 G	[10,000] 190,000 C
DIMETHYL METHYLPHOSPHONATE	**756-79-6**	**10,000 C**	**10,000 C**	**10,000 C**
DIMETHYLPHENOL, 2,4-	105-67-9	4,400 G	10,000 C	10,000 C
DINITROBENZENE, 1,3-	99-65-0	22 G	280 G	190,000 C
DINITROPHENOL, 2,4-	51-28-5	440 G	5,600 G	190,000 C
DINITROTOLUENE, 2,4-	121-14-2	58 G	260 G	190,000 C
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	220 G	2,800 G	190,000 C
DINOSEB	88-85-7	220 G	2,800 G	190,000 C
DIOXANE, 1,4-	123-91-1	[41] 58 N	[210] 290 N	[240] 330 N
DIPHENAMID	957-51-7	6,600 G	84,000 G	190,000 C
DIPHENYLAMINE	122-39-4	5,500 G	70,000 G	190,000 C
DIPHENYLHYDRAZINE, 1,2-	122-66-7	22 G	99 G	190,000 C
DIQUAT	85-00-7	480 G	6,200 G	190,000 C
DISULFOTON	298-04-4	[2.7] 8.8 [N] G	[7.6] 110 [N] G	[8.7] [N] 10,000 C
DITHIANE, 1,4-	**505-29-3**	**2,200 G**	**28,000 G**	**190,000 C**
DIURON	330-54-1	440 G	5,600 G	190,000 C
ENDOSULFAN	115-29-7	1,300 G	17,000 G	190,000 C
ENDOSULFAN I (ALPHA)	959-98-8	1,300 G	17,000 G	190,000 C
ENDOSULFAN II (BETA)	33213-65-9	1,300 G	17,000 G	190,000 C
ENDOSULFAN SULFATE	1031-07-8	1,300 G	17,000 G	190,000 C
ENDOTHALL	145-73-3	4,400 G	56,000 G	190,000 C
ENDRIN	72-20-8	66 G	840 G	190,000 C
EPICHLOROHYDRIN	106-89-8	19 N	[53] 79 N	[60] 91 N
ETHEPHON	16672-87-0	1,100 G	14,000 G	190,000 C
ETHION	563-12-2	110 G	1,400 G	10,000 C
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[3,800] 3,900 N	10,000 C	10,000 C
ETHYL ACETATE	141-78-6	10,000 C	10,000 C	10,000 C
ETHYL ACRYLATE	140-88-5	[23] 370 [N] G	[120] [N] 1,700 G	[140] [N] 10,000 C
ETHYL BENZENE	100-41-4	10,000 C	10,000 C	10,000 C
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	5,500 G	10,000 C	10,000 C
ETHYL ETHER	60-29-7	10,000 C	10,000 C	10,000 C
ETHYL METHACRYLATE	97-63-2	[20,000] 10,000 [G] C	[190,000] 10,000 C	[190,000] 10,000 C
ETHYLENE GLYCOL	107-21-1	[10,000] 7,700 [C] N	10,000 C	10,000 C
ETHYLENE THIOUREA (ETU)	96-45-7	18 G	220 G	190,000 C
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.2 G	28 G	190,000 C
FENAMIPHOS	22224-92-6	55 G	700 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	36,000 G	190,000 C
FLUORANTHENE	206-44-0	8,800 G	110,000 G	190,000 C
FLUORENE	86-73-7	8,800 G	110,000 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]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
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	10,000 C	10,000 C	10,000 C
FONOFOS	944-22-9	[140] 440 [N] G	[380] [N] 5,600 G	[440] [N] 10,000 C
FORMALDEHYDE	50-00-0	[24] 34 N	[130] 170 N	[150] 200 N
FORMIC ACID	64-18-6	[10,000] [C] 57 N	[10,000] [C] 240 N	[10,000] [C] 270 N
FOSETYL-AL	39148-24-8	190,000 C	190,000 C	190,000 C
FURAN	110-00-9	220 G	2,800 G	10,000 C
FURFURAL	98-01-1	660 G	[2,600] 4,000 N	[3,000] 4,500 N
GLYPHOSATE	1071-83-6	22,000 G	190,000 C	190,000 C
HEPTACHLOR	76-44-8	4 G	18 G	190,000 C
HEPTACHLOR EPOXIDE	1024-57-3	2 G	[9] 8.7 G	190,000 C
HEXACHLOROBENZENE	118-74-1	11 G	50 G	190,000 C
HEXACHLOROBUTADIENE	87-68-3	[44] 220 G	[560] 1,000 G	10,000 C
HEXACHLOROCYCLOPENTADIENE	77-47-4	1,300 G	10,000 C	10,000 C
HEXACHLOROETHANE	67-72-1	[220] 110 [G] N	[2,800] [G] 550 N	[190,000] [C] 640 N
HEXANE	110-54-3	[3,800] [N] 10,000 C	10,000 C	10,000 C
HEXAZINONE	**51235-04-2**	**7,300 G**	**92,000 G**	**190,000 C**
HEXYTHIAZOX (SAVEY)	78587-05-0	5,500 G	70,000 G	190,000 C
HMX	**2691-41-0**	**11,000 G**	**140,000 G**	**190,000 C**
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	[0.065] 0.09 N	[0.34] 0.45 N	[0.39] 0.52 N
HYDROQUINONE	123-31-9	[8,800] 320 G	[110,000] 1,400 G	190,000 C
INDENO[1,2,3-CD]PYRENE	193-39-5	[25] 5.7 G	110 G	190,000 C
IPRODIONE	36734-19-7	8,800 G	110,000 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	1.1 G	5 G	190,000 C
MALATHION	121-75-5	[1,400] [N] 4,400 G	[4,000] [N] 10,000 C	[4,600] [N] 10,000 C
MALEIC HYDRAZIDE	123-33-1	110,000 G	190,000 C	190,000 C
MANEB	12427-38-2	1,100 G	14,000 G	190,000 C
MERPHOS OXIDE	78-48-8	6.6 G	84 G	10,000 C
METHACRYLONITRILE	126-98-7	13 N	[37] 56 N	[43] 64 N
METHAMIDOPHOS	10265-92-6	11 G	140 G	190,000 C
METHANOL	67-56-1	10,000 C	10,000 C	10,000 C
METHOMYL	16752-77-5	5,500 G	70,000 G	190,000 C
METHOXYCHLOR	72-43-5	1,100 G	14,000 G	190,000 C
METHOXYETHANOL, 2-	109-86-4	[220] 380 [G] N	[1,100] 1,600 N	[1,200] 1,800 N
METHYL ACETATE	79-20-9	10,000 C	10,000 C	10,000 C
METHYL ACRYLATE	96-33-3	6,600 G	10,000 C	10,000 C
METHYL CHLORIDE	74-87-3	[180] 250 N	[920] 1,200 N	[1,000] 1,400 N

All concentrations in mg/kg
G - Ingestion
[H]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 ISOBUTYL KETONE	108-10-1	[1,500] [N] 10,000 C	[4,300] [N] 10,000 C	[4,900] [N] 10,000 C
METHYL ISOCYANATE	**624-83-9**	**19 N**	**79 N**	**91 N**
METHYL N-BUTYL KETONE (2-HEXANONE)	**591-78-6**	**96 N**	**400 N**	**460 N**
METHYL METHACRYLATE	80-62-6	10,000 C	10,000 C	10,000 C
METHYL METHANESULFONATE	66-27-3	180 G	800 G	[190,000] C 10,000
METHYL PARATHION	298-00-0	[17] 55 [N] G	[48] 700 [N] G	[55] [N] 190,000 C
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	[1,300] [G] 770 N	[17,000] [G] 3,200 N	[190,000] [C] 3,600 N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	620 G	3,200 N	3,700 N
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	**94-74-6**	**110 G**	**1,400 G**	**190,000 C**
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	[140] 42 G	[610] 790 G	190,000 C
METHYLNAPHTHALENE, 2-	91-57-6	[4,400] G 880	[10,000] G 11,000	[10,000] C 190,000
METHYLSTYRENE, ALPHA	98-83-9	[15,000] [G] 10,000 C	[190,000] C 10,000	[190,000] C 10,000
METOLACHLOR	**51218-45-2**	**10,000 C**	**10,000 C**	**10,000 C**
METRIBUZIN	**21087-64-9**	**5,500 G**	**70,000 G**	**190,000 C**
MONOCHLOROACETIC ACID	**79-11-8**	**2,200 G**	**28,000 G**	**190,000 C**
NAPHTHALENE	91-20-3	4,400 G	56,000 G	190,000 C
NAPHTHYLAMINE, 1-	134-32-7	9.9 G	44 G	190,000 C
NAPHTHYLAMINE, 2-	91-59-8	9.9 G	44 G	190,000 C
NAPROPAMIDE	15299-99-7	22,000 G	190,000 C	190,000 C
NITROANILINE, M-	99-09-2	[13] 66 G	[160] 840 G	190,000 C
NITROANILINE, O-	88-74-4	[13] 660 G	[160] G 8,400	190,000 C
NITROANILINE, P-	100-01-6	[13] 880 G	[160] G 4,000	190,000 C
NITROBENZENE	98-95-3	[110] 440 G	[1,400] G 5,600	10,000 C
NITROGUANIDINE	**556-88-7**	**22,000 G**	**190,000 C**	**190,000 C**
NITROPHENOL, 2-	88-75-5	1,800 G	22,000 G	190,000 C
NITROPHENOL, 4-	100-02-7	1,800 G	22,000 G	190,000 C
NITROPROPANE, 2-	79-46-9	[0.12] N 0.16	[0.61] N 0.82	[0.7] 0.94 N
NITROSODIETHYLAMINE, N-	55-18-5	[0.0073] N 0.0041	[0.038] N 0.051	[0.044] N 0.059
NITROSODIMETHYLAMINE, N-	62-75-9	[0.023] N 0.012	[0.12] N 0.16	[0.13] N 0.18
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	3.3 G	15 G	10,000 C
NITROSODI-N-PROPYLAMINE, N-	621-64-7	2.6 G	11 G	10,000 C
NITROSODIPHENYLAMINE, N-	86-30-6	3,700 G	16,000 G	190,000 C
NITROSO-N-ETHYLUREA, N-	759-73-9	[0.13] G 0.15	[0.57] 2.9 G	190,000 C
OCTYL PHTHALATE, DI-N-	117-84-0	[4,400] G 8,800	10,000 C	10,000 C
OXAMYL (VYDATE)	23135-22-0	5,500 G	70,000 G	190,000 C
PARAQUAT	**1910-42-5**	**990 G**	**13,000 G**	**190,000 C**

All concentrations in mg/kg
G - Ingestion
[H]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
PARATHION	56-38-2	1,300 G	10,000 C	10,000 C
PCB-1016 (AROCLOR)	12674-11-2	15 G	200 G	10,000 C
PCB-1221 (AROCLOR)	11104-28-2	[36] 9 G	[160] 40 G	10,000 C
PCB-1232 (AROCLOR)	11141-16-5	[36] 9 G	[160] 40 G	10,000 C
PCB-1242 (AROCLOR)	53469-21-9	[36] 9 G	[160] 40 G	10,000 C
PCB-1248 (AROCLOR)	12672-29-6	[9.9] 9 G	[44] 40 G	10,000 C
PCB-1254 (AROCLOR)	11097-69-1	4.4 G	[44] 40 G	10,000 C
PCB-1260 (AROCLOR)	11096-82-5	[30] 9 G	[130] 40 G	190,000 C
PEBULATE	1114-71-2	10,000 C	10,000 C	10,000 C
PENTACHLOROBENZENE	608-93-5	180 G	2,200 G	190,000 C
PENTACHLOROETHANE	**76-01-7**	**200 G**	**880 G**	**10,000 C**
PENTACHLORONITROBENZENE	82-68-8	69 G	310 G	190,000 C
PENTACHLOROPHENOL	87-86-5	150 G	660 G	190,000 C
PHENACETIN	62-44-2	8,100 G	36,000 G	190,000 C
PHENANTHRENE	85-01-8	66,000 G	190,000 C	190,000 C
PHENOL	108-95-2	[130,000] 66,000 G	190,000 C	190,000 C
PHENYL MERCAPTAN	**108-98-5**	**2.2 N**	**28 N**	**10,000 N**
PHENYLENEDIAMINE, M-	108-45-2	1,300 G	17,000 G	190,000 C
PHENYLPHENOL, 2-	90-43-7	[9,200] 9,400 G	[41,000] 42,000 G	190,000 C
PHORATE	298-02-2	[13] 44 [N] G	[37] 560 [N] G	[43] [N] 10,000 C
PHTHALIC ANHYDRIDE	85-44-9	190,000 C	190,000 C	190,000 C
PICLORAM	1918-02-1	15,000 G	190,000 C	190,000 C
PROMETON	**1610-18-0**	**3,300 G**	**42,000 G**	**190,000 C**
PRONAMIDE	23950-58-5	17,000 G	190,000 C	190,000 C
PROPANIL	709-98-8	1,100 G	14,000 G	190,000 C
PROPANOL 2- (ISOPROPYL ALCOHOL)	**67-63-0**	**10,000 C**	**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	56,000 G	190,000 C
PROPYLBENZENE, N-	103-65-1	8,800 G	10,000 C	10,000 C
PROPYLENE OXIDE	75-56-9	75 G	330 G	[510] 690 N
PYRENE	129-00-0	6,600 G	84,000 G	190,000 C
PYRIDINE	110-86-1	[67] 220 [N] G	[190] [N] 2,800 G	[210] [N] 10,000 C
QUINOLINE	91-22-5	[1.5] 6 G	[6.6] 26 G	10,000 C
QUIZALOFOP (ASSURE)	76578-14-8	2,000 G	25,000 G	190,000 C
RDX	**121-82-4**	**160 G**	**720 G**	**190,000 C**
RESORCINOL	**108-46-3**	**190,000 C**	**190,000 C**	**190,000 C**
RONNEL	299-84-3	11,000 G	140,000 G	190,000 C
SIMAZINE	122-34-9	150 G	660 G	190,000 C
STRYCHNINE	57-24-9	66 G	840 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	36,000 G	190,000 C
TERBUFOS	13071-79-9	[1.7] 5.5 [N] G	[4.6] 70 [N] G	[5.3] [N] 10,000 C
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	66 G	840 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]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
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	[0.00012] G 0.00014	[0.00053] G 0.00061	190,000 C
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	[690] 60 [G] N	[3,100] [G] 300 N	[190,000] [C] 340 N
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	[5.5] 7.7 N	[28] 38 N	[33] 44 N
TETRACHLOROETHYLENE (PCE)	127-18-4	340 G	1,500 G	[3,300] 4,400 N
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6,600 G	84,000 G	190,000 C
TETRAETHYL LEAD	78-00-2	0.022 G	0.28 G	10,000 C
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	[33] 110 [N] G	[92] 1,400 [N] G	[110] [N] 10,000 C
TETRAHYDROFURAN	**109-99-9**	**230 N**	**1,100 N**	**1,300 N**
THIOFANOX	39196-18-4	66 G	840 G	190,000 C
THIRAM	137-26-8	1,100 G	14,000 G	190,000 C
TOLUENE	108-88-3	[7,600] [N] 10,000 C	10,000 C	10,000 C
TOLUIDINE, M-	108-44-1	[75] 99 G	[330] 440 G	10,000 C
TOLUIDINE, O-	95-53-4	[75] 99 G	[330] 440 G	10,000 C
TOLUIDINE, P-	106-49-0	94 G	420 G	190,000 C
TOXAPHENE	8001-35-2	16 G	72 G	190,000 C
TRIALLATE	2303-17-5	2,900 G	[36,000] [G] 10,000 C	[190,000] [C] 10,000 C
TRIBROMOMETHANE (BROMOFORM)	75-25-2	[290] 410 N	[1,500] N 2,000	[1,700] N 2,300
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	[190,000] C 10,000	[190,000] C 10,000	[190,000] C 10,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	2,200 G	10,000 C	10,000 C
TRICHLOROBENZENE, 1,3,5-	108-70-3	1,300 G	17,000 G	190,000 C
TRICHLOROETHANE, 1,1,1-	71-55-6	10,000 C	10,000 C	10,000 C
TRICHLOROETHANE, 1,1,2-	79-00-5	[20] 28 N	[100] 140 N	[120] 160 N
TRICHLOROETHYLENE (TCE)	79-01-6	[190] 260 N	[970] N 1,300	[1,100] N 1,500
TRICHLOROPHENOL, 2,4,5-	95-95-4	22,000 G	190,000 C	190,000 C
TRICHLOROPHENOL, 2,4,6-	88-06-2	[66] 220 G	[840] G 2,800	190,000 C
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	2,200 G	28,000 G	190,000 C
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	1,800 G	22,000 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	[0.16] 2.6 [N] G	[0.82] 11 [N] G	[0.95] 460 [N] G
TRICHLOROPROPENE, 1,2,3-	96-19-5	[1,100] 19 [G] N	[10,000] [C] 80 N	[10,000] [C] 91 N
TRIETHYLAMINE	**121-44-8**	**130 N**	**560 N**	**640 N**
TRIFLURALIN	1582-09-8	1,700 G	10,000 G	190,000 C
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	[110] 130 N	[320] 560 N	[360] 640 N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	110 N	[320] 480 N	[360] 550 N
TRINITROGLYCEROL (NITROGLYCERIN)	**55-63-0**	**22 G**	**280 G**	**10,000 C**
TRINITROTOLUENE, 2,4,6-	118-96-7	110 G	1,400 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]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
VINYL ACETATE	108-0-5-4	[3,800] N 3,900	10,000 C	10,000 C
VINYL BROMIDE (BROMOETHENE)	593-60-2	[160] 14 [G] N	[720] 70 [G] N	[190,000] [C] 80 N
VINYL CHLORIDE	75-01-4	[12] 1.9 G	[53] 110 G	[220] 580 N
WARFARIN	81-81-2	66 G	840 G	190,000 C
XYLENES (TOTAL)	1330-20-7	[8,000] N 1,900	[10,000] [C] 8,000 N	[10,000] [C] 9,100 N
ZINEB	12122-67-7	11,000 G	140,000 G	190,000 C

All concentrations in mg/kg
G - Ingestion
[H]N - Inhalation
C - Cap

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
ACENAPHTHENE	83-32-9	220	2,700 E	380	4,700 E	380	4,700 E	380	4,700 E	380	4,700 E	380	4,700 E	15
ACENAPHTHYLENE	208-96-8	220	2,500 E	610	6,900 E	1,600	18,000 E	1,600	18,000 E	1,600	18,000 E	1,600	18,000 E	15
ACEPHATE	30560-19-1	7.6	0.9 E	30	3.6 E	760	90 E	3,000	360 E	7.6	0.9 E	30	3.6 E	NA
ACETALDEHYDE	75-07-0	1.9	0.23 E	[5.2] 7.9	[0.63] 0.96 E	190	23 E	[520] 790	[63] 96 E	1.9	0.23 E	[5.2] 7.9	[0.63] 0.96 E	NA
ACETONE	67-64-1	[370] 3,300	[41] 370 E	[1,000] 9,200	[110] 1,000 E	10,000	[4,100] 10,000 [E] C	10,000	10,000 C	[3,700] 10,000	[410] 3,700 E	10,000	[1,100] 10,000 E	NA
ACETONITRILE	75-05-8	[17] 13	[1.9] 1.5 E	[35] 53	[3.9] 6 E	[1,700] 1,300	[190] 150 E	[3,500] 5,300	[390] 600 E	[170] 130	[19] 15 E	[350] 530	[39] 60 E	NA
ACETOPHENONE	98-86-2	370	200 E	1,000	540 E	10,00	10,000 C	10,000	10,000 C	370	200 E	1,000	540 E	NA
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.017	0.07 E	0.068	0.28 E	1.7	7 E	6.8	28 E	17	70 E	68	280 E	20
ACROLEIN	107-02-8	[0.0055] 0.0042	[0.00062] 0.00047 E	[0.012] 0.018	[0.0014] 0.002 E	[0.55] 0.42	[0.062] 0.047 E	[1.2] 1.8	[0.14] 0.2 E	[0.055] 0.042	[0.0062] 0.0047 E	[0.12] 0.18	[0.014] 0.02 E	NA
ACRYLAMIDE	79-06-1	[0.0033] 0.0038	[0.00057] 0.00066 E	[0.014] 0.019	[0.0024] 0.0033 E	[0.33] 0.4	[0.057] 0.07 E	[1.4] 1.9	[0.24] 0.33 E	[0.003] 0.004	[0.00057] 0.0007 E	[0.014] 0.019	[0.0024] 0.0033 E	NA
ACRYLIC ACID	79-10-7	[0.28] 0.21	[0.051] 0.039 E	[0.58] 0.88	[0.11] 0.16 E	[28] 21	[5.1] 3.9 E	[58] 88	[11] 16 E	[28] 21	[5.1] 3.9 E	[58] 88	[11] 16 E	NA
ACRYLONITRILE	107-13-1	[0.063] 0.072	[0.0087] 0.01 E	[0.27] 0.37	[0.037] 0.051 E	[6.3] 7.2	[0.87] 1 E	[27] 37	[3.7] 5.1 E	[6.3] 7.2	[0.87] 1 E	[27] 37	[3.7] 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	[0.7] 0.3	[0.12] 0.05 E	[0.7] 0.3	[0.12] 0.05 E	[70] 30	[12] 5 E	[70] 30	[12] 5 E	[700] 300	[120] 50 E	[700] 300	[120] 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	[0.00087] 0.0039	[0.1] 0.47 E	[0.0037] 0.015	[0.44] 1.8 E	[0.087] 0.39	[10] 47 E	[0.37] 1.5	[44] 180 E	[0.087] 2	[10] 240 E	[0.37] 2	[44] 240 E	10
ALLYL ALCOHOL	107-18-6	[4.9] 0.063	[0.58] 0.0075 E	[10] 0.26	[1.2] 0.031 E	[490] 6.3	[58] 0.75 E	[1,000] 26	[120] 3.1 E	[490] 6.3	[58] 0.75 E	[1,000] 26	[120] 3.1 E	NA

[1] For other options see Section 250.308

All concentrations in mg/kg

E - Number calculated by the soil to groundwater equation in Section 250.308

C - Cap

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

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
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**
AMINOBIPHENYL, 4-	92-67-1	0.0031	0.0012 E	0.012	0.0046 E	0.31	0.12 E	1.2	0.46 E	3.1	1.2 E	12	4.6 E	NA
AMITROLE	61-82-5	0.07	0.029 E	0.28	0.12 E	7	2.9 E	28	12 E	70	29 E	280	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	**[0.28] 0.21**	**[0.16] 0.12** E	**[0.58] 0.88**	**[0.34] 0.52** E	**[28] 21**	**[16] 12** E	**[58] 88**	**[34] 52** E	**[0.28] 0.21**	**[0.16] 0.12** E	**[0.58] 0.88**	**[0.34] 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**	**11**	**12 E**	**31**	**35 E**	**1,100**	**1,200 E**	**3,100**	**3,500 E**	**11**	**12 E**	**31**	**35 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	180	880 E	200	970 E	200	970 E	200	970 E	180	880 E	200	970 E	20
BENTAZON	25057-89-0	**[110] 20**	**[16] 2.9** E	**[310] 20**	**[45] 2.9** E	**[11,000] 2,000**	**[1,600] 290** E	**[31,000] 2,000**	**[4,500] 290** E	**[110] 20**	**[16] 2.9** E	**[310] 20**	**[45] 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
BENZIDINE	92-87-5	**[0.00029] 0.000093**	**[0.38] 0.12** E	0.0011	1.5 E	**[0.029] 0.0093**	**[38] 12** E	0.11	150 E	**[0.29] 0.093**	**[380] 120** E	1.1	1,500 E	5
BENZO[A]ANTHRACENE	56-55-3	**[0.09] 0.029**	**[79] 25** E	0.36	320 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	**[0.09] 0.029**	**[120] 40** 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	0.055	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	15,000	2,900 E	41,000	7,800 E	190,000	52,000 E	190,000	52,000 E	15,00	2,900 E	41,000	7,800 E	NA
BENZOTRICHLORIDE	98-07-7	0.0051	0.012 E	0.02	0.048 E	0.51	1.2 E	2	4.8 E	5.1	12 E	20	48 E	30
BENZYL ALCOHOL	100-51-6	**[1,100] 1,800**	**[400] 650** E	**[3,100] 5,100**	**[1,100] 1,800** E	10,000	10,000 C	10,000	10,000 C	**[1,100] 1,800**	**[400] 650** E	**[3,100] 5,100**	**[1,100] 1,800** E	NA
BENZYL CHLORIDE	100-44-7	**[0.087] 0.1**	**[0.051] 0.059** E	**[0.37] 0.51**	**[0.22] 0.3** E	**[8.7] 10**	**[5.1] 5.9** E	**[37] 51**	**[22] 30** E	**[8.7] 10**	**[5.1] 5.9** E	**[37] 51**	**[22] 30** E	NA
BETA PROPIOLACTONE	**57-57-8**	**0.0012**	**0.00015 E**	**0.0063**	**0.00076 E**	**0.1**	**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	0.041	0.19 E	1	4.6 E	4.1	19 E	10	46 E	41	190 E	20
BHC, BETA-	319-85-7	0.037	0.22 E	0.14	0.82 E	3.7	22 E	10	59 E	10	59 E	10	59 E	15

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
[BHC, DELTA-]	[319-86-8	[2.2]	[11] [E]	[6.1]	[30] [E]	[220]	[1,100] [E]	[610]	[3,000] [E]	[800]	[3,900] [E]	[800]	[3,900] [E]	[20]
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	180	790 E	510	2,200 E	720	3,100 E	720	3,100 E	720	3,100 E	720	3,100 E	20
BIS(2-CHLOROETHOXY)METHANE	**111-91-1**	**11**	**2.9 E**	**31**	**8.2 E**	**1,100**	**290 E**	**3,100**	**820 E**	**11**	**2.9 E**	**31**	**8.2 E**	**NA**
BIS(2-CHLOROETHYL)ETHER	111-44-4	[0.013] 0.015	[0.0039] 0.0045 E	[0.055] 0.076	[0.017] 0.023 E	[1.3] 1.5	[0.39] 0.45 E	[5.5] 7.6	[1.7] 2.3 E	[1.3] 1.5	[0.39] 0.45 E	[5.5] 7.6	[1.7] 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	[0.000069] 0.000079	[0.00001] 0.000012 E	[0.0002] 0.0004	[0.000044] 0.00006 E	[0.0069] 0.0079	0.001 E	[0.029] 0.04	[0.0044] 0.006 E	[0.0069] 0.0079	0.001 E	[0.029] 0.04	[0.0044] 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	180	700 E	510	2,000 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	[8] 7	[2] 1.8 E	[8] 7	[2] 1.8 E	[800] 700	[200] 180 E	[800] 700	[200] 180 E	[8] 7	[2] 1.8 E	[8] 7	[2] 1.8 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
BROMODICHLOROMETHANE	75-27-4	[10] 8	[3.4] 2.7 E	[10] 8	[3.4] 2.7 E	[1,000] 800	[340] 270 E	[1,000] 800	[340] 270 E	[10] 8	[3.4] 2.7 E	[10] 8	[3.4] 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	73	63 E	200	170 E	7,300	6,300 E	13,000	11,000 E	73	63 E	200	170 E	NA
BROMOXYNIL OCTANOATE	1689-99-2	8	360 E	8	360 E	8	360 E	8	360 E	8	360 E	8	360 E	15
BUTADIENE, 1,3-	106-99-0	[0.015] 0.019	[0.0062] 0.0078 E	[0.065] 0.076	[0.027] 0.031 E	[1.5] 1.9	[0.62] 0.78 E	[6.5] 7.6	[2.7] 3.1 E	[1.5] 1.9	[0.62] 0.78 E	[6.5] 7.6	[2.7] 3.1 E	NA
BUTYL ALCOHOL, N-	71-36-3	[97] 370	[12] 44 E	[200] 1,000	[24] 120 E	[9,700] 10,000	[1,200] 4,400 E	10,000	[2,400] 10,000 [E] C	[970] 3,700	[120] 440 E	[2,000] 10,000	[240] 1,200 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
BUTYLATE	2008-41-5	[35] 40	[51] 58 E	[35] 40	[51] 58 E	[3,500] 4,000	[5,100] 5,800 E	[3,500] 4,000	[5,100] 5,800 E	[35] 40	[51] 58 E	[35] 40	[51] 58 E	30
BUTYLBENZENE, N-	104-51-8	150	950 E	410	2,600 E	1,500	9,500 E	1,500	9,500 E	150	950 E	410	2,600 E	15
BUTYLBENZENE, SEC-	135-98-8	150	350 E	410	960 E	1,700	4,000 E	1,700	4,000 E	150	350 E	410	960 E	30
BUTYLBENZENE, TERT-	98-06-6	150	270 E	410	740 E	3,000	5,400 E	3,000	5,400 E	150	270 E	410	740 E	30
BUTYLBENZYL PHTHALATE	85-68-7	[270] 35	[10,000] 3,000 [C] E	[270] 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	[19] 29	[12] 18 E	50	31 E	50	31 E	50	31 E	50	31 E	50	31 E	NA
CARBARYL	63-25-2	[70] 370	[41] 220 E	[70] 1,000	[41] 590 E	[7,000] 12,000	[4,100] 7,000 E	[7,000] 12,000	[4,100] 7,000 E	12,000	7,000 E	12,000	7,000 E	NA
CARBAZOLE	86-74-8	3.3	21 E	13	83 E	120	760 E	120	760 E	120	760 E	120	760 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	[190] 150	[160] 130 E	[410] 620	[350] 530 E	10,000	10,000 C	10,000	10,000 C	[190] 150	[160] 130 E	[410] 620	[350] 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-	75-68-3	[14,000] 10,000	[2,300] 1,800 E	[29,000] 10,000	[4,800] 7,300 E	[140,000] 10,000	[23,000] 10,000 [E] C	[140,000] 10,000	[23,000] 10,000 [E] C	[14,000] 10,000	[2,300] 1,800 E	[29,000] 10,000	[4,800] 7,300 E	NA
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	[0.28] 0.21	[0.065] 0.049 E	[0.58] 0.88	[0.13] 0.2 E	[28] 21	[6.5] 4.9 E	[58] 88	[13] 20 E	[28] 21	[6.5] 4.9 E	[58] 88	[13] 20 E	NA
CHLOROACETOPHENONE, 2-	532-27-4	[0.031] 0.11	[0.0093] 0.033 E	[0.088] 0.31	[0.026] 0.093 E	[3.1] 11	[0.93] 3.3 E	[8.8] 31	[2.6] 9.3 E	[31] 110	[9.3] 33 E	[88] 310	[26] 93 E	NA
CHLOROANILINE, P-	106-47-8	[15] 0.33	[19] 0.42 E	[41] 1.3	[52] 1.6 E	[1,500] 33	[1,900] 42 E	[4,100] 130	[5,200] 160 E	[15] 0.33	[19] 0.42 E	[41] 1.3	[52] 1.6 E	NA
CHLOROBENZENE	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	[0.24] 0.6	[1.6] 4 E	[0.96] 2.4	[6.3] 16 E	[24] 60	[160] 400 E	[96] 240	[630] 1,600 E	[240] 600	[1,600] 4,000 E	[960] 1,300	[6,300] 8,600 E	15

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
CHLOROBUTANE, 1-	109-69-3	[1,500] 150	[2,300] 230 E	[4,100] 410	[6,400] 640 E	10,000	10,000 C	10,000	10,000 C	[1,500] 150	[2,300] 230 E	[4,100] 410	[6,400] 640 E	30
CHLORODIBROMOMETHANE	124-48-1	[10] 8	[3.2] 2.5 E	[10] 8	[3.2] 2.5 E	[1,000] 800	[320] 250 E	[1,000] 800	[320] 250 E	[1,000] 800	[320] 250 E	[1,000] 800	[320] 250 E	NA
CHLORODIFLUOROMETHANE	75-45-6	[10] 10,000	[2.6] 2,800 E	[10] 10,000	[2.6] 10,000 C	[1,000] 10,000	[260] 10,000 [E] C	[1,000] 10,000	[260] 10,000 [E] C	[10] 10,000	[2.6] 2,800 E	[10] 10,000	[2.6] 10,000 E	NA
CHLOROETHANE	75-00-3	23	5 E	90	19 E	2,300	500 E	9,000	1,900 E	2,300	500 E	9,000	1,900 E	NA
CHLOROFORM	67-66-3	[10] 8	[2.5] 2 E	[10] 8	[2.5] 2 E	[1,000] 800	[250] 200 E	[1,000] 800	[250] 200 E	[100] 80	[25] 20 E	[100] 80	[25] 20 E	NA
CHLORONAPHTHALENE, 2-	91-58-7	290	6,200 E	820	18,000 E	1,200	26,000 E	1,200	26,000 E	290	6,200 E	820	18,000 E	15
CHLORONITROBENZENE, P-	100-00-5	3.7	4.9 E	[14] 10	[18] 13 E	370	490 E	[1,400] 1,000	[1,800] 1,300 E	3.7	4.9 E	[14] 10	[18] 13 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	[1.9] 1.5	[0.45] 0.35 E	[4.1] 6.2	[0.97] 1.5 E	[190] 150	[45] 35 E	[410] 620	[97] 150 E	[190] 150	[45] 35 E	[410] 620	[97] 150 E	NA
CHLOROPROPANE, 2-	75-29-6	[28] 21	[21] 16 E	[58] 88	[44] 67 E	[2,800] 2,100	[2,100] 1,600 E	[5,800] 8,800	[4,400] 6,700 E	[28] 21	[21] 16 E	[58] 88	[44] 67 E	NA
CHLOROTHALONIL	1897-45-6	[6] 21	[15] 54 E	[24] 60	[61] 150 E	[60] 60	[150] 150 E	[60] 60	[150] 150 E	[6] 21	[15] 54 E	[24] 60	[61] 150 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	[2] 0.2	[23] 2.3 E	[2] 0.2	[23] 2.3 E	[110] 20	[1,300] 230 E	[110] 20	[1,300] 230 E	[2] 0.2	[23] 2.3 E	[2] 0.2	[23] 2.3 E	15
CHLORSULFURON	64902-72-3	180	25 E	510	71 E	[13,000] 18,000	[1,800] 2,500 E	[13,000] 19,000	[1,800] 2,600 E	180	25 E	510	71 E	NA
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	[40] 7	[650] 110 E	[40] 7	[650] 110 E	50	820 E	50	820 E	50	820 E	50	820 E	15
CHRYSENE	218-01-9	0.19	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	18	3.1 E	51	8.9 E	1,800	310 E	5,100	890 E	1,800	310 E	5,100	890 E	NA
CRESOL, 4,6-DINITRO-O-	**534-52-1**	**0.37**	**0.28 E**	**1**	**0.75 E**	**37**	**28 E**	**100**	**75 E**	**370**	**280 E**	**1,000**	**750 E**	**NA**

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
CRESOL, O- (2-METHYLPHENOL)	95-48-7	180	[64] 30 E	510	[180] 85 E	[10,000] 18,000	[6,400] 3,000 E	[10,000] 51,000	[10,000] 8,500 C	[10,000] 18,000	[6,400] 3,000 E	[10,000], 51,000	[10,000] 8,500 C	NA
CRESOL, M- (3-METHYLPHENOL)	108-39-4	180	36 E	510	100 E	10,000	3,600 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	NA
CRESOL, P- (4-METHYLPHENOL)	106-44-5	18	4.2 E	51	12 E	1,800	420 E	5,100	1,200 E	18,000	4,200 E	51,000	12,000 E	NA
CRESOL, P-CHLORO-M-	59-50-7	18	37 E	51	110 E	1,800	3,700 E	5,100	11,000 E	18	37 E	51	110 E	30
CROTONALDEHYDE	4170-30-3	[0.0079] 0.035	[0.00099] 0.0044 E	[0.034] 0.14	[0.0043] 0.018 E	[0.79] 3.5	[0.099] 0.44 E	[3.4] 14	[0.43] 1.8 E	[0.79] 3.5	[0.099] 0.44 E	[3.4] 14	[0.43] 1.8 E	NA
CROTONALDEHYDE, TRANS-	123-73-9	[0.0079] 0.035	[0.001] 0.0044 E	[0.034] 0.14	[0.0043] 0.018 E	[0.79] 3.5	[0.1] 0.44 E	[3.4] 14	[0.43] 1.8 E	[0.79] 3.5	[0.1] 0.44 E	[3.4] 14	[0.43] 1.8 E	NA
CUMENE (ISOPROPYL BENZENE)	98-82-8	[110] 84	[780] 600 E	[230] 350	[1,600] 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	[4,900] 10,000	[1,400] 5,000 E	10,000	[2,800] 10,000 [E] C	10,000	10,000 C	10,000	10,000 C	[4,900] 10,000	[1,400] 5,000 E	10,000	[2,800] 10,000 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	27	84 E	77	240 E	2,700	8,400 E	7,700	24,000 E	27	84 E	77	240 E	20
DDD, 4,4'-	72-54-8	[0.062] 0.28	[6.8] 31 E	[0.27] 1.1	[30] 120 E	[6.2] 16	[680] 1,800 E	16	1,800 E	[6.2] 16	[680] 1,800 E	16	1,800 E	10
DDE, 4,4'-	72-55-9	0.19	41 E	0.76	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
DIALLATE	2303-16-4	[0.25] 1.1	[0.15] 0.64 E	[1] 4.3	[0.59] 2.5 E	[25] 110	[15] 64 E	[100] 430	[59] 250 E	[25] 1,100	[15] 640 E	[100] 4,000	[59] 2,300 E	NA
DIAMINOTOLUENE, 2,4-	95-80-7	[0.021] 0.017	[0.0042] 0.0034 E	[0.081] 0.068	[0.016] 0.014 E	[2.1] 1.7	[0.42] 0.34 E	[8.1] 6.8	[1.6] 1.4 E	[21] 17	[4.2] 3.4 E	[81] 68	[16] 14 E	NA
DIAZINON	333-41-5	[0.06] 0.1	[0.082] 0.14 E	[0.06] 0.1	[0.082] 0.14 E	[6] 10	[8.2] 14 E	[6] 10	[8.2] 14 E	[0.06] 0.1	[0.082] 0.14 E	[0.06] 0.1	[0.082] 0.14 E	30

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
DIBENZO[A,H]ANTHRACENE	53-70-3	[0.009] 0.0029	[41] 13 E	0.036	160 E	0.06	270 E	0.06	270 E	0.06	270 E	0.06	270 E	5
DIBENZOFURAN	**132-64-9**	**3.7**	**95 E**	**10**	**260 E**	**370**	**9,500 E**	**450**	**12,000 E**	**450**	**12,000 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	37	150 E	100	410 E	2,000	8,200 E	2,000	8,200 E	37	150 E	100	410 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	[9.7] 37	[3.7] 14 E	[20] 100	[7.7] 39 E	[970] 3,700	[370] 1,400 E	[2,000] 10,000	[770] 3,900 E	[970] 3,700	[370] 1,400 E	[2,000] 10,000	[770] 3,900 E	NA
DIBUTYL PHTHALATE, N-	84-74-2	370	1,500 E	1,000	4,100 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	**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	[0.0016] 0.0012	[0.0009] 0.00067 E	[0.0069] 0.006	[0.0039] 0.0034 E	[0.16] 0.12	[0.09] 0.07 E	[0.69] 0.6	[0.39] 0.34 E	[0.0016] 0.0012	[0.0009] 0.0007 E	[0.0069] 0.006	[0.0039] 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
DICHLOROBENZIDINE, 3,3'-	91-94-1	0.15	8.3 E	0.58	32 E	15	830 E	58	3,200 E	150	8,300 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	[2.7] 3.1	[0.65] 0.75 E	[11] 16	[2.7] 3.9 E	[270] 310	[65] 75 E	[1,100] 1,600	[270] 390 E	[27] 31	[6.5] 7.5 E	[110] 160	[27] 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

[1] For other options see Section 250.308

All concentrations in mg/kg

E - Number calculated by the soil to groundwater equation in Section 250.308

C - Cap

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

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
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
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	7	1.8 E	7	1.8 E	700	180 E	700	180 E	[700] 7,000	[180] 1,800 E	[700] 7,000	[180] 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
DICHLOROPROPENE, 1,3-	542-75-6	0.66	0.12 E	2.6	0.46 E	66	12 E	260	46 E	66	12 E	260	46 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	[0.052] 0.23	[0.012] 0.054 E	[0.22] 0.9	[0.052] 0.21 E	[5.2] 23	[1.2] 5.4 E	[22] 90	[5.2] 21 E	[0.052] 0.23	[0.012] 0.054 E	[0.22] 0.9	[0.052] 0.21 E	NA
DICYCLOPENTADIENE	77-73-6	[0.055] 1.5	[0.12] 3.2 E	[0.12] 6.2	[0.26] 13 E	[5.5] 150	[12] 320 E	[12] 620	[26] 1,300 E	[0.055] 2	[0.12] 3 E	[0.12] 6	[0.26] 13 E	30
DIELDRIN	60-57-1	0.0041	0.11 E	0.016	0.44 E	0.41	11 E	1.6	44 E	4.1	110 E	16	440 E	15
DIETHANOLAMINE	**111-42-2**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
DIETHYL PHTHALATE	84-66-2	[500] 2,900	[160] 910 E	[500] 8,200	[160] 2,600 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	0.73	0.28 E	2	0.77 E	73	28 E	200	77 E	730	280 E	2,000	770 E	NA
DIMETHOXYBENZIDINE, 3,3-	119-90-4	4.7	16 E	19	64 E	470	1,600 E	1,900	6,400 E	4,700	16,000 E	6,000	20,000 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**
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	0.014	0.037 E	0.057	0.15 E	1.4	3.7 E	5.7	15 E	14	37 E	57	150 E	20
DIMETHYLANILINE, N,N-	121-69-7	7.3	4.1 E	20	11 E	730	410 E	2,000	1,100 E	730	410 E	2,000	1,100 E	NA
DIMETHYLBENZIDINE, 3,3-	119-93-7	[0.0072] 0.006	[0.4] 0.33 E	[0.028] 0.024	[1.5] 1.3 E	[0.72] 0.6	[40] 33 E	[2.8] 2.4	[150] 130 E	[7.2] 6	[400] 330 E	[28] 24	[1,500] 1,300 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 E**	**10**	**1 E**	**NA**
DIMETHYLPHENOL, 2,4-	105-67-9	73	32 E	200	87 E	7,300	3,200 E	10,000	8,700 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	[1.9] 7.3	[0.21] 0.83 E	[4.1] 20	[0.46] 2.3 E	[190] 730	[21] 83 E	[410] 2,000	[46] 230 E	[19] 7,300	[2.1] 830 E	[41] 20,000	[4.6] 2,300 E	NA
DINITROTOLUENE, 2,4-	121-14-2	0.21	0.05 E	0.84	0.2 E	21	5 E	84	20 E	210	50 E	840	200 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	3.7	1.1 E	10	3 E	370	110 E	1,000	300 E	3,700	1,100 E	10,000	3,000 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	[0.56] 0.64	[0.073] 0.084 E	[2.4] 3.2	[0.31] 0.42 E	[56] 64	[7.3] 8.4 E	[240] 320	[31] 42 E	[5.6] 6.4	[0.73] 0.84 E	[24] 32	[3.1] *4.2* 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	[20] 91	[12] 53 E	[20] 260	[12] 150 E	[2,000] 9,100	[1,200] 5,300 E	[2,000] 26,000	[1,200] 15,000 E	[20] 30,000	[12] 18,000 E	[20] 30,000	[12] 18,000 E	NA
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.083	0.15 E	0.33	0.58 E	8.3	15 E	25	44 E	25	44 E	25	44 E	30
DIQUAT	85-00-7	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	[0.03] 0.07	[0.078] 0.18 E	[0.03] 0.07	[0.078] 0.18 E	[3] 7	[7.8] 18 E	[3] 7	[7.8] 18 E	[30] 70	[78] 180 E	[30] 70	[78] 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	[1]] 7.3	[0.86] 6.3 E	[1] 20	[0.86] 17 E	[100] 730	[86] 630 E	[100] 2,000	[86] 1,700 E	[1] 7.3	[0.86] 6.3 E	[1] 20	[0.86] 17 E	NA
ENDOSULFAN	115-29-7	[5.8] 22	[30] 110 E	[12] 48	[61] 250 E	48	250 E	48	250 E	48	250 E	48	250 E	15
ENDOSULFAN I (ALPHA)	959-98-8	22	110 E	50	260 E	50	260 E	50	260 E	22	110 E	50	260 E	15
ENDOSULFAN II (BETA)	33213-65-9	22	130 E	45	260 E	45	260 E	45	260 E	22	130 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	[0.28] 0.21	[0.056] 0.042 E	[0.58] 0.88	[0.12] 0.17 E	[28] 21	[5.6] 4.2 E	[58] 88	[12] 17 E	[28] 21	[5.6] 4.2 E	[58] 88	[12] 17 E	NA
ETHEPHON	16672-87-0	18	2.1 E	51	5.9 E	1,800	210 E	5,100	590 E	18	2.1 E	51	5.9 E	NA
ETHION	563-12-2	1.8	39 E	5.1	110 E	85	1,900 E	85	1,900 E	1.8	39 E	5.1	110 E	15
ETHOXYETHANOL, 2- (EGEE)	110-80-5	[55] 42	[7.8] 5.9 E	[120] 180	[17] 25 E	[5,500] 4,200	[780] 590 E	10,000	[1,700] 2,500 E	[5,500] 4,200	[780] 590 E	10,000	[1,700] 2,500 E	NA
ETHYL ACETATE	141-78-6	[870] 3,300	[220] 850 E	[1,800] 9,200	[470] 2,400 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	NA
ETHYL ACRYLATE	140-88-5	[0.31] 1.4	[0.12] 0.54 E	[1.3] 5.4	[0.5] 2.1 E	[31] 140	[12] 54 E	[130] 540	[50] 210 E	[31] 140	[12] 54 E	[130] 540	[50] 210 E	NA
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

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	91	65 E	260	180 E	9,100	6,500 E	10,000	10,000 C	91	65 E	260	180 E	NA
ETHYL ETHER	60-29-7	[190] 730	[53] 210 E	[410] 2,000	[120] 560 E	10,000	[5,300] 10,000 [E] C	10,000	10,000 C	[190] 730	[53] 210 E	[410] 2,000	[120] 560 E	NA
ETHYL METHACRYLATE	97-63-2	[87] 330	[14] 55 E	[180] 920	[30] 150 E	[8,700] 10,000	[1,400] 5,500 E	[18,000] 10,000	[3,000] 10,000 [E] C	[87] 330	[14] 55 E	[180] 920	[30] 150 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	[0.3] 0.29	[0.034] 0.032 E	[0.3] 0.82	[0.034] 0.092 E	[30] 29	[3.4] 3.2 E	[30] 82	[3.4] 9.2 E	[300] 290	[34] 32 E	[300] 820	[34] 92 E	NA
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.037	0.12 E	0.1	0.31 E	3.7	12 E	10	31 E	0.037	0.12 E	0.1	0.31 E	20
FENAMIPHOS	22224-92-6	[0.2] 0.07	[0.17] 0.06 E	[0.2] 0.07	[0.17] 0.06 E	[20] 7	[17] 6 E	[20] 7	[17] 6 E	[0.2] 0.1	[0.17] 0.06 E	[0.2] 0.1	[0.17] 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	150	3,000 E	190	3,800 E	190	3,800 E	190	3,800 E	190	3,800 E	190	3,800 E	15
FLUOROTRICHLOROMETHANE (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	[1900] 0.63	[210] 0.071 E	[4,100] 2.6	[460] 0.3 E	[10,000] 63	[10,000] 7.1 [C] E	[10,000] 260	[10,000] 29 [C] E	[10,000] 6.3	[2,100] 0.71 E	[10,000] 26	[4,600] 3 E	NA
FOSETYL-AL	39148-24-8	11,000	9,700 E	31,000	27,000 E	190,000	190,000 C	190,000	190,000 C	11,000	9,700 E	31,000	27,000 E	NA
FURAN	110-00-9	[0.97] 3.7	[0.42] 1.6 E	[2] 10	[0.87] 4.4 E	[97] 370	[42] 160 E	[200] 1,000	[87] 440 E	[97] 370	[42] 160 E	[200] 1,000	[87] 440 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
FURFURAL	98-01-1	11	1.4 E	[29] 31	[3.7] 3.9 E	1,100	140 E	[2,900] 3,100	[370] 390 E	11	1.4 E	[29] 31	[3.7] 3.9 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	[2.0] 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	[0.1] 0.9	[1.2] 10 E	[0.1] 3.3	[1.2] 39 E	[10] 85	[120] 1,000 E	[10] 290	[120] 3,400 E	[100] 290	[1,200] 3,400 E	[100] 290	[1,200] 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
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
HEXANE	110-54-3	[55] 150	[500] 1,400 E	[120] 610	[1,100] 5,600 E	950	8,700 E	950	8,700 E	[55] 150	[500] 1,400 E	[120] 610	[1,100] 5,600 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	438 E	NA
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	[0.00088] 0.001	[0.00009 8] 0.00011 E	[0.0038] 0.0051	[0.00042] 0.00057 E	[0.088] 0.1	[0.0098] 0.011 E	[0.38] 0.51	[0.042] 0.057 E	[0.008 8] 0.01	[0.00098] 0.0011 E	[0.038] 0.051	[0.0042] 0.0057 E	NA
HYDROQUINONE	123-31-9	[150] 1.2	[20] 0.16 E	[410] 4.6	[55] 0.62 E	[15,000] 120	[2,000] 16 E	[41,000] 460	[5,500] 62 E	[150,000] 1,200	[20,000] 160 E	[190,000] 4,600	[55,000] 620 E	NA
INDENO[1,2,3-CD]PYRENE	193-39-5	[0.09] 0.029	[7,000] 2,200 E	0.36	28,000 E	[6.2] 2.9	190,000 C	6.2	190,000 C	6.2	190,000 C	6.2	190,000 C	5
IPRODIONE	36734-19-7	150	430 E	410	1,200 E	1,300	3,700 E	1,300	3,700 E	150	430 E	410	1,200 E	20
ISOBUTYL ALCOHOL	78-83-1	[290] 1,100	[76] 290 E	[610] 3,100	[160] 810 E	10,000	[7,600] 10,000 [E] C	10,000	10,000 C	10,000	[7,600] 10,000 [E] 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	0.0041	0.56 E	0.016	2.2 E	0.41	56 E	1.6	220 E	4.1	560 E	16	2,200 E	10

[1] For other options see Section 250.308

All concentrations in mg/kg

E - Number calculated by the soil to groundwater equation in Section 250.308

C - Cap

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

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
MALATHION	121-75-5	10	34 E	10	34 E	1,000	3,400 E	1,000	3,400 E	[1,000] 10,000	[3,400] 10,000 [E] C	[1,000] 10,000	[3,400] 10,000 [E] 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	18	2 E	51	5.8 E	1,800	200 E	2,300	260 E	18	2 E	51	5.8 E	NA
MERPHOS OXIDE	78-48-8	0.11	15 E	0.31	41 E	11	1,500 E	31	4,100 E	0.11	15 E	0.31	41 E	10
METHACRYLONITRILE	126-98-7	[0.19] 0.15	[0.031] 0.025 E	[0.41] 0.62	[0.067] 0.1 E	[19] 15	[3.1] 2.5 E	[41] 62	[6.7] 10 E	[0.19] 0.15	[0.031] 0.025 E	[0.41] 0.62	[0.067] 0.1 E	NA
METHAMIDOPHOS	10265-92-6	0.18	0.022 E	0.51	0.063 E	18	2.2 E	51	6.3 E	0.18	0.022 E	0.51	0.063 E	NA
METHANOL	67-56-1	[490] 840	[58] 99 E	[1,000] 3,500	[120] 410 E	10,000	[5,800] 9,900 E	10,000	10,000 C	10,000	[5,800] 9,900 E	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	[3.7] 4.2	[0.41] 0.47 E	[10] 18	[1.1] 2 E	[370] 420	[41] 47 E	[1,000] 1,800	[110] 200 E	[3.7] 4.2	[0.41] 0.47 E	[10] 18	[1.1] 2 E	NA
METHYL ACETATE	79-20-9	3,700	690 E	10,000	1,900 E	10,000	10,000 C	10,000	10,000 C	3,700	690 E	10,000	1,900 E	NA
METHYL ACRYLATE	96-33-3	110	27 E	310	77 E	10,000	2,700 E	10,000	7,700 E	10,000	2,700 E	10,000	7,700 E	NA
METHYL CHLORIDE	74-87-3	[0.3] 3	[0.038] 0.38 E	[0.3] 3	[0.038] 0.38 E	[30] 300	[3.8] 38 E	[30] 300	[3.8] 38 E	[30] 300	[3.8] 38 E	[30] 300	[3.8] 38 E	NA
METHYL ETHYL KETONE	78-93-3	[280] 400	[54] 76 E	[580] 400	[110] 76 E	10,000	[5,400] 7,600 E	10,000	[10,000] 7,600 C	10,000	[5,400] 7,600 E	10,000	[10,000] 7,600 C	NA
METHYL ISOBUTYL KETONE	108-10-1	[19] 290	[2.9] 45 E	[41] 820	[6.3] 130 E	[1,900] 10,000	[290] 4,500 E	[4,100] 10,000	[630] 10,000 [E] C	[1,900] 10,000	[290] 4,500 E	[4,100] 10,000	[630] 10,000 [E] 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**	**1.1**	**0.27 E**	**4.4**	**1.1 E**	**110**	**27 E**	**440**	**110 E**	**1.1**	**0.27 E**	**4.4**	**1.1 E**	**NA**
METHYL METHACRYLATE	80-62-6	[190] 150	[26] 20 E	[410] 620	[56] 84 E	10,000	[2,600] 2,000 E	10,000	[5,600] 8,400 E	10,000	[2,600] 2,000 E	10,000	[5,600] 8,400 E	NA
METHYL METHANESULFONATE	66-27-3	0.67	0.083 E	2.6	0.32 E	67	8.3 E	260	32 E	0.67	0.083 E	2.6	0.32 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
METHYL PARATHION	298-00-0	[0.2] 0.1	[0.42] 0.21 E	[0.2] 0.1	[0.42] 0.21 E	[20] 10	[42] 21 E	[20] 10	[42] 21 E	[20] 100	[42] 210 E	[20] 100	[42] 210 E	30
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	[22] 8.4	[120] 47 E	[61] 35	[340] 200 E	[2,200] 840	[12,000] 4,700 E	[6,100] 3,500	[34,000] 10,000 [E] C	[22] 8.4	[120] 47 E	[61] 35	[340] 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
METHYLCHLOROPHENOXYACETIC 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	[0.51] 0.22	[3.9] 1.7 E	[2] 2.6	[15] 20 E	[51] 22	[390] 170 E	[200] 260	[1,500] 2,000 E	[0.51] 0.22	[3.9] 1.7 E	[2] 2.6	[15] 20 E	15
METHYLNAPHTHALENE, 2-	91-57-6	[73] 15	[2,900] 600 E	[200] 41	[8,000] 1,600 E	[2,500] 1,500	[10,000] 60,000 [C] E	2,500	[10,000] 100,000 [C] E	[73] 15	[2,900] 600 E	[200]41	[8,000] 1,600 E	15
METHYLSTYRENE, ALPHA	98-83-9	[68] 260	[120] 460 E	[140] 720	[250] 1,300 E	[6,800] 10,000	[12,000] 10,000 [E] C	[14,000] 10,000	[25,000] 10,000 [E] C	[68] 260	[120] 460 E	[140] 720	[250] 1,300 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
MONOCHLOROACETIC ACID	**79-11-8**	7	0.78 E	7	0.78 E	700	78 E	700	78 E	7	0.78 E	7	0.78 E	NA
NAPHTHALENE	91-20-3	10	25 E	10	25 E	1,000	2,500 E	1,000	2,500 E	3,000	7,500 E	3,000	7,500 E	30
NAPHTHYLAMINE, 1-	134-32-7	0.037	0.3 E	0.14	1.1 E	3.7	30 E	14	110 E	37	300 E	140	1,100 E	15
NAPHTHYLAMINE, 2-	91-59-8	0.037	0.012 E	0.14	0.046 E	3.7	1.2 E	14	4.6 E	37	12 E	140	46 E	NA
NAPROPAMIDE	15299-99-7	370	860 E	1,000	2,300 E	7,000	16,000 E	7,000	16,000 E	370	860 E	1,000	2,300 E	30
NITROANILINE, M-	99-09-2	[0.21] 1.1	[0.033] 0.17 E	[0.58] 3.1	[0.091] 0.48 E	[21] 110	[3.3] 17 E	[58] 310	[9.1] 48 E	[0.21] 1.1	[0.033] 0.17 E	[0.58] 3.1	[0.091] 0.48 E	NA
NITROANILINE, O-	88-74-4	[0.21] 11	[0.038] 2 E	[0.58] 31	[0.1] 5.5 E	[21] 1,100	[3.8] 200 E	[58] 3,100	[10] 550 E	[0.21] 11	[0.038] 2 E	[0.58] 31	[0.1] 5.5 E	NA
NITROANILINE, P-	100-01-6	[0.21] 3.3	[0.031] 0.49 E	[0.58] 13	[0.086] 1.9 E	[21] 330	[3.1] 49 E	[58] 1,300	[8.6] 190 E	[0.21] 3.3	[0.031] 0.49 E	[0.58] 13	[0.086] 1.9 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	[1.8] 7.3	[0.79] 3.2 E	[5.1] 20	[2.2] 8.7 E	[180] 730	[79] 320 E	[510] 2,000	[220] 870 E	[1,800] 7,300	[790] 3,200 E	[5,100] 10,000	[2,200] 8,700 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**	**NA**
NITROPHENOL, 2-	88-75-5	29	5.9 E	82	17 E	2,900	590 E	8,200	1,700 E	29,000	5,900 E	82,000	17,000 E	NA
NITROPHENOL, 4-	100-02-7	6	4.1 E	6	4.1 E	600	410 E	600	410 E	6,000	4,100 E	6,000	4,100 E	NA
NITROPROPANE, 2-	79-46-9	[0.0016] 0.0018	[0.00026] 0.00029 E	[0.0068] 0.0093	[0.0011] 0.0015 E	[0.16] 0.18	[0.026] 0.029 E	[0.68] 0.93	[0.11] 0.15 E	[0.016] 0.018	[0.0026] 0.0029 E	[0.068] 0.093	[0.011] 0.015 E	NA
NITROSODIETHYLAMINE, N-	55-18-5	[0.0001] 0.000045	[0.000018] 0.0000079 E	[0.00043] 0.00058	[0.00076] 0.0001 E	[0.01] 0.0045	[0.0018] 0.0008 E	[0.043] 0.058	[0.0076] 0.01 E	[0.001] 0.00045	[0.00018] 0.00008 E	[0.0043] 0.0058	[0.00076] 0.001 E	NA
NITROSODIMETHYLAMINE, N-	62-75-9	[0.00031] 0.00014	[0.000041] 0.000019 E	[0.0013] 0.0018	[0.00017] 0.00024 E	[0.031] 0.014	[0.0041] 0.0019 E	[0.13] 0.18	[0.017] 0.024 E	[0.00311] 0.0014	[0.00041] 0.00019 E	[0.013] 0.018	[0.0017] 0.0024 E	NA
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	[0.0027] 0.012	[0.0033] 0.015 E	[0.011] 0.048	[0.014] 0.059 E	[0.27] 1.2	[0.33] 1.5 E	[1.1] 4.8	[1.4] 5.9 E	[0.27] 12	[0.33] 15 E	[1.1] 48	[1.4] 59 E	NA
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.0094	0.0013 E	0.037	0.0051 E	0.94	0.13 E	3.7	0.51 E	9.4	1.3 E	37	5.1 E	NA
NITROSODIPHENYLAMINE, N-	86-30-6	13	20 E	53	83 E	1,300	2,000 E	3,500	5,500 E	3,500	5,500 E	3,500	5,500 E	30
NITROSO-N-ETHYLUREA, N-	759-73-9	[0.00047] 0.0008	[0.000054] 0.000092 E	[0.0019] 0.0096	[0.00022] 0.0011 E	[0.047] 0.08	[0.0054] 0.0092 E	[0.19] 0.96	[0.022] 0.11 E	[0.047] 0.8	[0.0054] 0.092 E	[0.19] 9.6	[0.022] 1.1 E	NA
OCTYL PHTHALATE, DI-N-	117-84-0	[73] 150	10,000 C	[200] 300	10,000 C	300	10,000 C	300	10,000 C	300	10,000 C	300	10,000 C	5
OXAMYL (VYDATE)	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	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**	**15**
PARATHION	56-38-2	22	130 E	61	360 E	2,000	10,000 C	2,000	10,000 C	22	130 E	61	360 E	15
PCB-1016 (AROCLOR)	12674-11-2	0.26	72 E	0.72	200 E	25	6,900 E	25	6,900 E	0.26	72 E	0.72	200 E	10
PCB-1221 (AROCLOR)	11104-28-2	[0.13] 0.033	[0.63] 0.16 E	[0.52] 0.13	[2.5] 0.63 E	[13] 3.3	[63]16 E	[52] 13	[250] 63 E	[0.13] 0.033	[0.63] 0.16 E	[0.52] 0.13	[2.5] 0.63 E	20

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
PCB-1232 (AROCLOR)	11141-16-5	[0.13] 0.033	[0.5] 0.13 E	[0.52] 0.13	[2] 0.5 E	[13] 3.3	[50] 13 E	[52] 13	[200] 50 E	[0.13] 0.033	[0.5] 0.13 E	[0.52] 0.13	[2] 0.5 E	20
PCB-1242 (AROCLOR)	53469-21-9	[0.13] 0.033	[16] 4 E	[0.52] 0.13	[62] 16 E	[10] 3.3	[1,200] 400 E	10	1,200 E	[0.13] 0.033	[16] 4 E	[0.52] 0.13	[62] 16 E	10
PCB-1248 (AROCLOR)	12672-29-6	[0.037] 0.033	[18] 16 E	[0.14] 0.13	[67] 62 E	[4] 3.3	[1,800] 1,600 E	5.4	2,600 E	[0.04] 0.033	[18] 16 E	[0.14] 0.13	[67] 62 E	10
PCB-1254 (AROCLOR)	11097-69-1	[0.037] 0.033	[75] 67 E	[0.14] 0.13	[280] 260 E	[4] 3.3	[7,500] 6,700 E	5.7	10,000 C	[0.04] 0.033	[75] 67 E	[0.14] 0.13	[280] 260 E	5
PCB-1260 (AROCLOR)	11096-82-5	[0.11] 0.033	[500] 150 E	[0.43] 0.13	[1,900] 590 E	[8] 3.3	[36,000] 15,000 E	8	36,000 E	[0.11] 0.033	[500] 150 E	[0.43] 0.13	[1900] 590 E	5
PEBULATE	1114-71-2	180	300 E	510	860 E	9,200	10,000 C	9,200	10,000 C	180	300 E	510	860 E	30
PENTACHLOROBENZENE	608-93-5	2.9	230 E	8.2	660 E	74	5,900 E	74	5,900 E	74	5,900 E	74	5,900 E	10
PENTACHLOROETHANE	**76-01-7**	**0.73**	**3.6 E**	**2.9**	**14 E**	**73**	**360 E**	**290**	**1,400 E**	**0.73**	**3.6 E**	**2.9**	**14 E**	**20**
PENTACHLORONITROBENZENE	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
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	[400] 200	[66] 33 E	[400] 200	[66] 33 E	[40,000] 20,000	[6,600] 3,300 E	[40,000] 20,000	[6,600] 3,300 E	[40,000] 20,000	[6,600] 3,300 E	[40,000] 20,000	[6,600] 3,300 E	NA
PHENYL MERCAPTAN	**108-98-5**	**0.037**	**0.056 E**	**0.1**	**0.15 E**	**3.7**	**5.6 E**	**10**	**15 E**	**0.037**	**0.056 E**	**0.1**	**0.15 E**	**30**
PHENYLENEDIAMINE, M-	108-45-2	22	3.1 E	61	8.6 E	2,200	310 E	6,100	860 E	22,000	3,100 E	61,000	8,600 E	NA
PHENYLPHENOL, 2-	90-43-7	[34] 35	[490] 500 E	[130] 140	[1,900] 2,000 E	[3,400] 3,500	[49,000] 50,000 E	[13,000] 14,000	190,000 E	[34,000] 35,000	190,000 C	70,000	190,000 C	15
PHORATE	298-02-2	[0.19] 0.73	[0.41] 1.6 E	[0.41] 2	[0.88] 4.3 E	[19] 73	[41] 160 E	[41] 200	[88] 430 E	[0.19] 0.73	[0.41] 1.6 E	[0.41] 2	[0.88] 4.3 E	30
PHTHALIC ANHYDRIDE	85-44-9	7,300	2,300 E	20,000	6,200 E	190,00	190,00 C	190,000	190,000 C	190,000	190,000 C	190,000	190,000 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

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
PROMETON	**1610-18-0**	**10**	**9.8 E**	**10**	**9.8 E**	**1,000**	**980 E**	**1,000**	**980 E**	**10**	**9.8 E**	**10**	**9.8 E**	**NA**
PRONAMIDE	23950-58-5	[5] 270	[3.1] 170 E	[5] 770	[3.1] 470 E	[500] 1,500	[310] 920 E	[500] 1,500	[310] 920 E	[5] 270	[3.1] 170 E	[5] 770	[3.1] 470 E	NA
PROPANIL	709-98-8	18	9.2 E	51	26 E	1,800	920 E	5,100	2,600 E	18	9.2 E	51	26 E	NA
PROPANOL, 2- (ISOPROPYL ALCOHOL)	**67-63-0**	**1,500**	**260 E**	**6,200**	**1,100 E**	**10,000**	**10,000 C**	**10,000**	**10,000 C**	**1,500**	**260 E**	**6,200**	**1,100 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**	**NA**
PROPHAM	122-42-9	[73] 10	[17] 2.4 E	[200] 10	[48] 2.4 E	[7,300] 1,000	[1,700] 240 E	[20,000] 1,000	[4,800] 240 E	[73] 10	[17] 2.4 E	[200] 10	[48] 2.4 E	NA
PROPYLBENZENE, N-	103-65-1	150	290 E	410	780 E	5,200	9,900 E	5,200	9,900 E	150	290 E	410	780 E	30
PROPYLENE OXIDE	75-56-9	0.28	0.049 E	1.1	0.19 E	28	4.9 E	110	19 E	0.28	0.049 E	1.1	0.19 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	10
PYRIDINE	110-86-1	[0.97] 3.7	[0.11] 0.41 E	[2] 10	[0.22] 1.1 E	[97] 370	[11] 41 E	[200] 1,000	[22] 110 E	[9.7] 37	[1.1] 4.1 E	[20] 100	[2.2] 11 E	NA
QUINOLINE	91-22-5	[0.0055] 0.022	[0.018] 0.074 E	[0.022] 0.087	[0.074] 0.29 E	[0.55] 2.2	[1.8] 7.4 E	[2.2] 8.7	[7.4] 29 E	[5.5] 22	[18] 74 E	[22] 87	[74] 290 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
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**	**NA**
RESORCINOL	**108-46-3**	**7,300**	**850 E**	**20,000**	**2,300 E**	**190,000**	**85,000 E**	**190,000**	**190,000 C**	**7,300**	**850 E**	**20,000**	**2,300 E**	**NA**
RONNEL	299-84-3	180	280 E	510	800 E	4,000	6,200 E	4,000	6,200 E	180	280 E	510	800 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	NA
STRYCHNINE	57-24-9	1.1	0.89 E	3.1	2.5 E	110	89 E	310	250 E	1,100	890 E	3,100	2,500 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	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	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	NA
TERBUFOS	13071-79-9	[0.09] 0.04	[0.12] 0.055 E	[0.09] 0.04	[0.12] 0.055 E	[9] 4	[12] 5.5 E	[9] 4	[12] 5.5 E	[0.09] 0.04	[0.12] 0.055 E	[0.09] 0.04	[0.12] 0.055 E	30
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	1.1	5.1 E	3.1	14 E	58	270 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	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	30

[1] For other options see Section 250.308

All concentrations in mg/kg

E - Number calculated by the soil to groundwater equation in Section 250.308

C - Cap

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

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.03	0.0093 E	0.03	0.0093 E	3	0.93 E	3	0.93 E	3	0.93 E	3	0.93 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	[29] 110	[450] 1,700 E	[61] 310	[950] 4,800 E	[2,900] 11,000	[45,000] 170,000 E	[6,100] 18,000	[95,000] 190,000 [E] C	[2,900] 18,000	[45,000] 190,000 [E] C	[6,100] 18,000	[95,000] 190,000 E	15
TETRAETHYL LEAD	78-00-2	0.00037	0.0046 E	0.001	0.012 E	0.037	0.46 E	0.1	1.2 E	0.37	4.6 E	1	12 E	15
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	[0.49] 1.8	[0.73] 2.7 E	[1] 5.1	[1.5] 7.6 E	[49] 180	[73] 270 E	[100] 510	[150] 760 E	[0.49] 1.8	[0.73] 2.7 E	[1] 5.1	[1.5] 7.6 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	1.1	0.12 E	3.1	0.34 E	110	12 E	310	34 E	1.1	0.12 E	3.1	0.34 E	NA
THIRAM	137-26-8	18	47 E	51	130 E	1,800	4,700 E	3,000	7,800 E	18	47 E	51	130 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	[0.28] 0.37	[0.13] 0.17 E	[1.1] 1.4	[0.51] 0.65 E	[28] 37	[13] 17 E	[110] 140	[51] 65 E	[0.28] 0.37	[0.13] 0.17 E	[1.1] 1.4	[0.51] 0.65 E	NA
TOLUIDINE, O-	95-53-4	[0.28] 0.37	[0.32] 0.42 E	[1.1] 1.4	[1.2] 1.6 E	[28] 37	[32] 42 E	[110] 140	[120] 160 E	[280] 370	[320] 420 E	[1,100] 1,400	[1,200] 1,600 E	NA
TOLUIDINE, P-	106-49-0	0.35	0.32 E	1.4	1.3 E	35	32 E	140	130 E	0.35	0.32 E	1.4	1.3 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
TRIALLATE	2303-17-5	47	240 E	130	660 E	400	2,000 E	400	2,000 E	47	240 E	130	660 E	15
TRIBROMOMETHANE (BROMOFORM)	75-25-2	[10] 8	[4.4] 3.5 E	[10] 8	[4.4] 3.5 E	[1,000] 800	[440] 350 E	[1,000] 800	[440] 350 E	[1,000] 800	[440] 350 E	[1,000] 800	[440] 350 E	NA
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	[8,300] 6,300	[26,000] 10,000 [E] C	[17,000] 10,000	[53,000] 10,000 [E] C	[17,000] 10,000	[53,000] 10,000 [E] C	[17,000] 10,000	[53,000] 10,000 [E] C	[17,000] 10,000	[53,000] 10,000 [E] C	[17,000] 10,000	[53,000] 10,000 [E] C	20
TRICHLOROBENZENE, 1,2,4-	120-82-1	7	27 E	7	27 E	700	2,700 E	700	2,700 E	4,400	10,000 C	4,400	10,000 C	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

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

APPENDIX A
TABLE 3 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR ORGANIC REGULATED SUBSTANCES IN SOIL
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-Use Aquifers				Soil Buffer Distance (feet)
		TDS ≤ 2500				TDS > 2500								
		Residential		Non-Residential		Residential		Non-Residential		Residential		Non-Residential		
		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	
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
TRICHLOROPHENOL, 2,4,5-	95-95-4	370	2,300 E	1,000	6,100 E	37,000	190,000 C	100,000	190,000 C	100,00	190,000 C	100,00	190,00 C	15
TRICHLOROPHENOL, 2,4,6-	88-06-2	[1.1] 3.7	[3.1] 11 E	[3.1] 10	[8.9] 29 E	[110] 370	[310] 1,100 E	[310] 1,000	[890] 2,900 E	[1,100] 3,700	[3,100] 11,000 E	[3,100] 10,000	[8,900] 29,000 E	20
TRICHLOROPHENOXYACETIC 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
TRICHLOROPHENOXYPROPIONIC 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	18	3.1 E	51	8.7 E	1,800	310 E	5,100	870 E	18	3.1 E	51	8.7 E	NA
TRICHLOROPROPANE, 1,2,3-	96-18-4	4	3.2 E	4	3.2 E	400	320 E	400	320 E	400	320 E	400	320 E	NA
TRICHLOROPROPENE, 1,2,3-	96-19-5	[18] 0.21	[11] 0.12 E	[51] 0.88	[30] 0.52 E	[1,800] 21	[1,100] 12 E	[5,100] 88	[3,000] 52 E	[18] 0.21	[11] 0.12 E	[51] 0.88	[30] 0.52 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**
TRIFLURALIN	1582-09-8	0.5	0.96 E	0.5	0.96 E	50	96 E	50	96 E	0.5	0.96 E	0.5	0.96 E	30
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	[1.6] 1.5	[9] 8.4 E	[3.5] 6.2	[20] 35 E	[160] 150	[900] 840 E	[350] 620	[2,000] 3,200 E	[160] 150	[900] 840 E	[350] 620	[2,000] 3,500 E	15
TRIMETHYLBENZENE, 1,3,5-	108-67-8	[1.6] 1.3	[2.8] 2.3 E	[3.5] 5.3	[6.2] 9.3 E	[160] 130	[280] 230 E	[350] 530	[620] 930 E	[1.6] 1.3	[2.8] 2.3 E	[3.5] 5.3	[6.2] 9.3 E	30
TRINITROGLYCEROL (NITROGLYCERIN)	**55-63-0**	**0.5**	**0.056 E**	**0.5**	**0.056 E**	**50**	**5.6 E**	**50**	**5.6 E**	**0.5**	**0.056 E**	**0.5**	**0.056 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	[55] 42	[6.5] 5 E	[120] 180	[14] 21 E	[5,500] 4,200	[650] 500 E	[10,000] 10,000	[1,400] 2,100 E	[55] 42	[6.5] 5 E	[120] 180	[14] 21 E	NA
VINYL BROMIDE (BROMOETHENE)	593-60-2	[0.14] 0.15	[0.068] 0.073 E	[0.58] 0.78	[0.28] 0.38 E	[14] 15	[6.8] 7.3 E	[58] 78	[28] 38 E	[1.4] 1.5	[0.68] 0.73 E	[5.8] 7.8	[2.8] 3.8 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	1.1	2.6 E	3.1	7.4 E	110	260 E	310	740 E	1,100	2,600 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	180	29 E	510	81 E	1,000	160 E	1,000	160 E	180	29 E	510	81 E	NA

[1] For other options see Section 250.308
All concentrations in mg/kg
E - Number calculated by the soil to groundwater equation in Section 250.308
C - Cap
NA - The soil buffer distance option is not available for this substance

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		Non-Residential MSCs Surface Soil 0-2 feet		Non-Residential MSCs Subsurface Soil 2-15 feet	
ALUMINUM	7429-90-5	190,000	C	190,000	C	190,000	C
ANTIMONY	7440-36-0	88	G	1,100	G	190,000	C
ARSENIC	7440-38-2	12	G	53	G	190,000	C
BARIUM AND COMPOUNDS	7440-39-3	**[15,000] 44,000**	G	190,000	C	190,000	C
BERYLLIUM	7440-41-7	440	G	5,600	G	190,000	C
BORON AND COMPOUNDS	7440-42-8	**[20,000] 44,000**	G	190,000	C	190,000	C
CADMIUM	7440-43-9	**[47] 110**	G	**[210] 1,400**	G	190,000	C
CHROMIUM III	16065-83-1	190,000	C	190,000	C	190,000	C
CHROMIUM VI	18540-29-9	**[94] 660**	G	**[420] 8,400**	G	**[190,000] 20,000**	**[C] N**
COBALT	7440-48-4	**[4,400] 66**	G	**[56,000] 840**	G	190,000	C
COPPER	7440-50-8	**[8,200] 8,100**	G	100,000	G	190,000	C
CYANIDE, FREE	57-12-5	4,400	G	56,000	G	190,000	C
FLUORIDE	**16984-48-8**	**8,800**	**G**	**110,000**	**G**	**190,000**	**G**
IRON	7439-89-6	**[66,000] 150,000**	G	190,000	C	190,000	C
LEAD	7439-92-1	500	U	1,000	S	190,000	C
LITHIUM	**7439-93-0**	**440**	**G**	**5,600**	**G**	**190,000**	**C**
MANGANESE	7439-96-5	**[31,000] 10,000**	G	**[190,000] 130,000**	C	190,000	C
MERCURY	7439-97-6	[66] 35	G	[840] 450	G	190,000	C
MOLYBDENUM	**7439-98-7**	**1,100**	**G**	**14,000**	**G**	**190,000**	**C**
NICKEL	7440-02-0	4,400	G	56,000	G	190,000	C
PERCHLORATE	**7790-98-9**	**150**	**G**	**2,000**	**G**	**190,000**	**G**
SELENIUM	7782-49-2	1,100	G	14,000	G	190,000	C
SILVER	7440-22-4	1,100	G	14,000	G	190,000	C
THALLIUM	7440-28-0	15	G	200	G	190,000	C
TIN	7440-31-5	130,000	G	190,000	C	190,000	C
VANADIUM	7440-62-2	1,500	G	20,000	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

APPENDIX A

Table 4 - Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil

B. Soil to Groundwater Numeric Values

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-use Aquifers				Soil Buffer Distance (feet)
		TDS = 2500				TDS > 2500								
		R		NR		R		NR		R		NR		
		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	
ALUMINUM	7429-90-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	7440-36-0	0.6	27	0.6	27	60	2,700	60	2,700	600	27,000	600	27,000	15
ARSENIC	7440-38-2	[5] 1	[150] 29	[5] 1	[150] 29	[500] 100	[15,000] 2,900	[500] 100	[15,000] 2,900	[5,000] 1,000	[150,000] 29,000	[5,000] 1,000	[150,000] 29,000	15
BARIUM AND COMPOUNDS	7440-39-3	200	8,200	200	8,200	20,000	190,000	20,000	190,000	190,000	190,000	190,000	190,000	15
BERYLLIUM	7440-41-7	0.4	320	0.4	320	40	32,000	40	32,000	400	190,000	400	190,000	10
BORON AND COMPOUNDS	7440-42-8	60	[6.7] 190	60	[6.7] 190	6,000	[670] 19,000	6,000	[670] 19,000	60,000	[6,700] 190,000	60,000	[6,700] 190,000	[NA] 30
CADMIUM	7440-43-9	0.5	38	0.5	38	50	3,800	50	3,800	500	38,000	500	38,000	15
CHROMIUM (III)	16065-83-1	10	190,000	10	190,000	1,000	190,000	1,000	190,000	10,000	190,000	10,000	190,000	5
CHROMIUM (VI)	18540-29-9	10	190	10	190	1,000	19,000	1,000	19,000	10,000	190,000	10,000	190,000	15
COBALT	7440-48-4	[73] 1	[8.1] 50	[200] 3	[22] 140	[7,300] 110	[810] 5,000	[20,000] 310	[2,200] 14,000	[73,000] 1,100	[8,100] 50,000	[190,000] 3,100	[22,000] 140,000	[NA] 15
COPPER	7440-50-8	100	[36,000] 43,000	100	[36,000] 43,000	10,000	190,000	10,000	190,000	100,000	190,000	100,000	190,000	10
CYANIDE, FREE	57-12-5	20	200	20	200	2,000	20,000	2,000	20,000	20,000	190,000	20,000	190,000	20
FLUORIDE	16984-48-8	400	44	400	44	40,000	4,400	44,000	4,400	190,000	44,000	190,000	44,000	
IRON	7439-89-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	7439-92-1	0.5	450	0.5	450	50	45,000	50	45,000	500	190,000	500	190,000	10
LITHIUM	7439-93-2	7	2,200	20	6,000	730	190,000	2,000	190,000	7,300	190,000	20,000	190,000	10
MANGANESE	7439-96-5	[NA] 30	[NA] 2,000	[NA] 30	[NA] 2,000	[NA] 3,000	[NA] 190,000	[NA] 3,000	[NA] 190,000	[NA] 30,000	[NA] 190,000	[NA] 30,000	[NA] 190,000	[NA] 15
MERCURY	7439-97-6	0.2	10	0.2	10	20	1,000	20	1,000	200	10,000	200	10,000	15
MOLYBDENUM	7439-98-7	4	650	4	650	400	65,000	400	65,000	4,000	190,000	4,000	190,000	15
NICKEL	7440-02-0	10	650	10	650	1,000	65,000	1,000	65,000	10,000	190,000	10,000	190,000	15
PERCHLORATE	7790-98-9	2.6	0.29	7.2	0.8	260	29	720	80	2,600	290	7,200	800	NA
SELENIUM	7782-49-2	5	26	5	26	500	2,600	500	2,600	5,000	26,000	5,000	26,000	20
SILVER	7440-22-4	10	84	10	84	1,000	8,400	1,000	8,400	10,000	84,000	10,000	84,000	20
THALLIUM	7440-28-0	0.2	14	0.2	14	20	1,400	20	1,400	200	14,000	200	14,000	15

[1] For other options see Section 250.308

All concentrations in mg/kg

R – Residential

NR – Non-Residential

[G – Ingestion]

[H – Inhalation]

[C – Cap]

[U – UBK Model]

[S – SEGH Model]

NA - Not Applicable

APPENDIX A
Table 4 - Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values

REGULATED SUBSTANCE	CASRN	Used Aquifers								Non-use Aquifers				Soil Buffer Distance (feet)
		TDS = 2500				TDS > 2500								
		R		NR		R		NR		R		NR		
		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	
TIN	7440-31-5	2,200	**[240] 190,000**	6,100	**[680] 190,000**	190,000	**[24,000] 190,000**	190,000	**[68,000] 190,000**	190,000	190,000	190,000	190,000	**[NA] 10**
VANADIUM	7440-62-2	26	26,000	72	72,000	2,600	190,000	7,200	190,000	26,000	190,000	72,000	190,000	5
ZINC	7440-66-6	200	12,000	200	12,000	20,000	190,000	20,000	190,000	190,000	190,000	190,000	190,000	15

[1] For other options see Section 250.308
All concentrations in mg/kg
R – Residential
NR – Non-Residential
[G – Ingestion]
[H – Inhalation]
[C – Cap]
[U – UBK Model]
[S – SEGH Model]
NA - Not Applicable

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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		[0.06] [Ir]		4,900		3.8	1,5,6				279	1.24
ACENAPHTHYLENE	208-96-8	0.06 S		[0.06] [S]		4,500		16.1	5,6,7				280	2.11
ACEPHATE	30560-19-1	0.004 I	0.0087 I			3		818,000	6				340	
ACETALDEHYDE	75-07-0		[0.0077] [Ir]	[0.0026] I 0.009	[0.0077] I 0.0000022	4.1	X	1,000,000	1	13,100	15,100	X	20	
ACETONE	67-64-1	[0.1] 0.9 I		[8.86] 31 D		0.31	X	1,000,000	1	13,100	15,000	X	56	18.07
ACETONITRILE	75-05-8			[0.017] I 0.06		0.5	X	1,000,000	1	13,100	15,000	X	82	4.50
ACETOPHENONE	98-86-2	0.1 I		[0.1] [Ir]		170		5,500	1			X	203	
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3		3.8 C		[3.8] C 0.0013	1,600		10.13	7				303	0.69
ACROLEIN	107-02-8	[0.02] [H] 0.0005 I		[0.000005 7] 0.00002 I		0.56	X	208,000	1,2,4	13,100	15,100	X	53	4.50
ACRYLAMIDE	79-06-1	0.0002 I	4.5 [Ir] I	[0.0002] [Ir]	[4.55] I 0.0013	25	X	2,151,000	4	13,000	15,000	[X]	[192.6] 193	
ACRYLIC ACID	79-10-7	0.5 I		[0.000286] I 0.001		29	X	1,000,000	2	13,000	14,900	X	141	1.39
ACRYLONITRILE	107-13-1	[0.001] [H] 0.04 D	0.54 I	[0.000571] I 0.002	[0.238] I 0.000068	11	X	73,500	1	13,100	15,100	X	77	5.50
ALACHLOR	15972-60-8	0.01 I	[0.08] [H] 0.056 C	[0.01] [Ir]	[0.08] [Hr]	110		140	2				[100] 378	
ALDICARB	116-06-3	0.001 I		[0.001] [Ir]		22		6,000	2				287	0.40
ALDICARB SULFONE	1646-88-4	0.001 I				10		8,000	5				317	
ALDICARB SULFOXIDE	1646-87-3	0.001 I				0.22		330,000	5				307	
ALDRIN	309-00-2	0.00003 I	17 I	[0.00003] [Ir]	[17.15] I 0.0049	48,000		0.02	4,5,6				[145] 330	0.22
ALLYL ALCOHOL	107-18-6	0.005 I		[0.005] [Ir] 0.0003 P		3.2	X	1,000,000	2	13,100	15,000	X	97	18.07
AMETRYN	834-12-8	0.009				389		185	5				345	
AMINOBIPHENYL, 4-	92-67-1		21 C		[21] 0.006 C	110		1,200	5				302	18.07
AMITROLE	61-82-5		0.94 C		[0.945] C 0.00027	120		280,000	4				[200] 258	0.69
AMMONIA	7664-41-7	0.97 H		[0.0286] I 0.1		3	X	310,000	2,5,7	13,100	15,000	X	[-33.3] -33	
AMMONIUM SULFAMATE	7773-06-0	0.2 I		[0.2] [Ir]		3		2,160,000	10				[200] 603	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
ANILINE	62-53-3	0.007 [N] P	0.0057 I	[0.000286] 0.001 I	[0.0056] 0.0000016 C	190	X	33,800	1	13,000	14,900	X	184	
ANTHRACENE	120-12-7	0.3 I		[0.3] [Ir]		21,000		0.066	1,5,6,7,8,9				340	0.28
ATRAZINE	1912-24-9	0.035 I	[0.222] [H] 0.23 C	[0.035] [Ir]	[0.222] [Hr]	130		70	2,4,5				[200] 313	
AZINPHOS-METHYL (GUTHION)	86-50-0	0.003 D		0.01 D		407.4		31.5	1,2				421	
BAYGON (PROPOXUR)	114-26-1	0.004 I		[0.004] [Ir]		31		2,000	2,4,5				decomp.	4.50
BENOMYL	17804-35-2	0.05 I				1,900		2	5				520	
BENTAZON	25057-89-0	0.03 I				13		500	2				415	
BENZENE	71-43-2	[0.003] [N] 0.004 I	[0.029] 0.055 I	[0.0017] [N] 0.03 I	[0.027] 0.0000078 I	58	X	1,780.5	1,2,3,4	13,100	15,000	X	81	0.35
BENZIDINE	92-87-5	0.003 I	230 I	[0.003] [Ir]	[230] [Ir] 0.067 I	530,000		520	1,2,4				400	15.81
BENZO[A]ANTHRACENE	56-55-3		0.73 N		[0.31] [T] 0.00011 C	350,000		0.011	1,5,6				438	0.19
BENZO[A]PYRENE	50-32-8		7.3 I		[3.1] [N] 0.0011 C	910,000		0.0038	1,5,6				495	0.24
BENZO[B]FLUORANTHENE	205-99-2		0.73 N		[0.31] [T] 0.00011 C	550,000		0.0012	5,6,7				357	0.21
BENZO[GHI]PERYLENE	191-24-2	0.06 S		[0.06] [S]		2,800,000		0.00026	1,5,6				500	0.19
BENZO[K]FLUORANTHENE	207-08-9		0.073 N	-	[0.031] [T] 0.00011 C	4,400,000		0.00055	5,6,7				480	0.06
BENZOIC ACID	65-85-0	4 I		[4] [Ir]		32		2,700	2,3,4,5				249	
BENZOTRICHLORIDE	98-07-7		13 I			920		53	1,5,13			X	221	121,413.60
BENZYL ALCOHOL	100-51-6	[0.3] 0.5 [H] P		[0.3] [Hr]		100		40,000	1,2,3			X	205	
BENZYL CHLORIDE	100-44-7	0.002 P	0.17 I	0.001 P	[0.1715] 0.000049 C	190	X	493	1	13,000	15,000	X	179	20.90
BETA PROPIOLACTONE	57-57-8		14 C		0.004 C	4	X	370,000	2	13,100	15,000	X	162	0.01
BHC, ALPHA	319-84-6	0.008 D	6.3 I	[0.0006] [S]	[6.3] 0.0018 I	1,800		1.7	4,5,6,7				288	0.94
BHC, BETA-	319-85-7	[0.0006] [D]	1.8 I	[0.0006] [Dr]	[1.855] 0.00053 I	2,300		0.1	6				[60] 304	1.02
[BHC, DELTA-]	[319-86-8]	[0.0006] [S]		[0.0006] [S]		[1,900]		[8]	[6]				[60]	[1.26]
BHC, GAMMA (LINDANE)	58-89-9	0.0003 I	[1.3] 1.1 [H] C	[0.0003] [Ir]	[1.085] 0.00031 C	1,400		7.3	4,5,6				323	1.05

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
BIPHENYL, 1,1-	92-52-4	0.05 I		[0.05] [Ir]		1,700		7.2	1				255	18.07
BIS(2-CHLOROETHOXY)METHANE	**111-91-1**	**0.003 P**				**61**		**100,500**	**4,6,7,9,10,11**			**X**	**218**	
BIS(2-CHLOROETHYL)ETHER	111-44-4		1.1 I		[1.155] 0.00033 I	76	X	10,200	1,4,5	13,000	14,900	X	179	0.69
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	0.04 I	0.07 H	[0.04] [Ir]	[0.035] 0.00001 H	62	X	1,700	5	13,000	14,900	X	189	0.69
BIS(CHLOROMETHYL)ETHER	542-88-1		220 I		[217] 0.062 I	16	X	22,000	6	13,100	15,100	X	105	57,270.57
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	0.02 I	0.014 I	[0.02] [Ir]	[0.014] [N] 0.0000024 C	87,000		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**	
BROMOCHLOROMETHANE	74-97-5	0.01 M				27	X	16,700	4	13,100	15,000	X	68	
BROMODICHLOROMETHANE	75-27-4	0.02 I	0.062 I	[0.02] [Ir]	[0.1295] 0.000037 C	93	X	4,500	6	13,100	15,000	X	87	
BROMOMETHANE	74-83-9	0.0014 I		[0.0014] 0.005 I		170	X	17,500	2	13,100	15,000	X	4	6.66
BROMOXYNIL	1689-84-5	0.02 I				300		130	2				**329**	
BROMOXYNIL OCTANOATE	1689-99-2	0.02 I				18,000		0.08	12				**414**	5.75
BUTADIENE, 1,3-	106-99-0		3.4 C	**0.002 I**	[0.98] 0.00003 I	120	**X**	735	1	**13,200**	**15,000**	**X**	-4.5	4.50
BUTYL ALCOHOL, N-	71-36-3	0.1 I		[0.1] [Ir]		3.2	X	74,000	1	13,000	14,900	X	118	4.68
BUTYLATE	2008-41-5	0.05 I				540	X	45	2	13,200	15,200	X	138	
BUTYLBENZENE, N-	104-51-8	0.04 N				2,500	X	15	1,6,7	13,100	15,100	X	[183.1] 183	
BUTYLBENZENE, SEC-	135-98-8	0.04 N				890	X	17	1,6,7	13,100	15,000	X	[173.5] 174	
BUTYLBENZENE, TERT-	98-06-6	0.04 N				680	X	30	1,6,7	13,100	15,000	X	169	
BUTYLBENZYL PHTHALATE	85-68-7	0.2 I	**0.0019 P**	[0.2] [Ir]		34,000		2.69	4,5,6			X	370	1.39
CAPTAN	133-06-2	0.13 I	[0.0035] [H] 0.0023 C	[0.13] [Ir]	[0.00231] 0.00000066 C	200		0.5	4				259	589.39
CARBARYL	63-25-2	0.1 I		[0.1] [Ir]		190		120	2,4,5				315	4.22
CARBAZOLE	86-74-8		0.02 H			2,500		1.2	1,5,6				355	
CARBOFURAN	1563-66-2	0.005 I		[0.005] [Ir]		43		700	2				[200] 311	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
CARBON DISULFIDE	75-15-0	0.1 I		[0.2] 0.7 I		300	X	2,100	1,2,3	13,100	15,100	X	46	
CARBON TETRACHLORIDE	56-23-5	0.0007 I	0.13 I	[0.00057] [N] 0.19 D	[0.0525] 0.000015 I	160	X	795	1,2,3	13,100	15,000	X	77	0.07
CARBOXIN	5234-68-4	0.1 I				260		170	5,6,8				407	
CHLORAMBEN	133-90-4	0.015 I		[0.015] [Ir]		20		700	2				210	
CHLORDANE	57-74-9	0.0005 I	0.35 I	[0.0002] 0.0007 I	[0.35] 0.0001 I	98,000		0.056	4,5,7				[175] 351	[0.091] 0.09
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3			[14.3] 50 I		22	X	1,400	4	13,100	15,000	X	[-9.2] –9	
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	[0.00028 6] [Ir]	0.021 C	[0.000286] 0.001 I	[0.021] 0.000006 C	48	X	3,300	1,3,5,7,10	13,100	15,000	X	45	18.07
CHLOROACETOPHENONE, 2-	532-27-4	[0.00000 857] [Ir]		[0.000008 57] 0.00003 I		76		1,100	3				247	4.50
CHLOROANILINE, P-	106-47-8	0.004 I	0.2 P	[0.004] [Ir]		460		3,900	1				232	
CHLOROBENZENE	108-90-7	0.02 I		[0.00571] [H] 0.05 P		200	X	490	3	13,100	15,000	X	132	0.84
CHLOROBENZILATE	510-15-6	0.02 I	[0.27] 0.11 [H] C	[0.02] [Ir]	[0.273] [H] 0.000031 C	2600		13	4			[X]	415	3.60
CHLOROBUTANE, 1-	109-69-3	0.4 [H] P				580	X	680	1,2,3,4	13,200	15,000	X	[78.5] 79	
CHLORODIBROMOMETHANE	124-48-1	0.02 I	0.084 I	[0.02] [Ir]	[0.0945] 0.000027 C	83	X	4,200	4,6,7,9	13,100	15,100	X	116	1.39
CHLORODIFLUOROMETHANE	75-45-6			[14] 50 I		59	X	2,899	4	13,200	15,000	X	[-40.8] -41	
CHLOROETHANE	75-00-3	0.4 [Ir] N	0.0029 N	[2.86] 10 I	[0.0029] [Nr]	42	X	5,700	1	13,100	15,000	X	12	4.50
CHLOROFORM	67-66-3	0.01 I	[0.0061] [I]	[0.00009] [N] 0.098 D	[0.0805] 0.000023 I	56	X	8,000	1,2,3	13,100	15,000	X	61	0.01
CHLORONAPHTHALENE, 2-	91-58-7	0.08 I		[0.08] [Ir]		8,500		11.7	1				256	
CHLORONITROBENZENE, P-	100-00-5	0.001 P	[0.018] [H] 0.0063 P	[0.00017] 0.0006 P		480		220	1				242	
CHLOROPHENOL, 2-	95-57-8	0.005 I		[0.005] [Ir]		400	X	24,000	1,3,4	12,900	14,900	X	175	
CHLOROPRENE	126-99-8	0.02 H		[0.002] 0.007 H		50	X	1,736	9	13,100	15,000	X	59	0.69
CHLOROPROPANE, 2-	75-29-6			[0.0286] 0.1 H		260	X	3,100	1,3,5	13,200	15,000	X	[47.2] 47	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A

TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES

A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
CHLOROTHALONIL	1897-45-6	0.015 I	[0.011] [H] 0.0031 C		[0.0031] 0.0000008 9 C	980		0.6	2				350	
CHLOROTOLUENE, O-	95-49-8	0.02 I				760	X	422	14,15	13,100	15,000	X	[158.97] 159	
CHLOROTOLUENE, P-	**106-43-4**	**0.07 P**				**375**	**X**	**106**	**12**	**13,000**	**14,900**	**X**	**162**	
CHLORPYRIFOS	2921-88-2	0.003 I		[0.003] [Ir]		4,600		1.12	2,4,6,7				[200] 377	
CHLORSULFURON	64902-72-3	0.05 I				11		192	2,5,6,8,9				[152] 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		0.0073 N		[0.0031] [T] 0.000011 C	490,000		0.0019	1				448	[0.126] 0.13
CRESOL(S)	1319-77-3	0.005 S		0.06 C		25	X	20,000	2	13,000	14,900	X	139	5.16
CRESOL, 4,6-DINITRO-O-	**534-52-1**	**0.0001 P**				**257**		**150**	**4**				**312**	**6.02**
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	0.05 I				[97] 22	X	2,500	3,5,6	13,000	14,900	[X]	191	18.07
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	0.05 I				35		2,500	2			X	202	5.16
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	0.005 H				49		22,000	6				202	9.03
CRESOL, P-CHLORO-M-	59-50-7	0.005 S				780		3,846	2				235	
CROTONALDEHYDE	4170-30-3		1.9 S		[1.9] [Sr]	5.6	X	180,000	3	13,000	14,900	X	104	18.07
CROTONALDEHYDE, TRANS-	123-73-9		1.9 H		[1.9] [Hr]	6.1	X	156,000	1	13,100	15,100	X	104	18.07
CUMENE (ISOPROPYL BENZENE)	98-82-8	0.1 I		[0.11] 0.4 I		2,800	X	50	1,5,6	13,100	15,100	X	152	15.81
CYANAZINE	**21725-46-2**	**0.002 M**	**0.84 H**			**199**		**171**	**2,5**				**369**	
CYCLOHEXANE	**110-82-7**			**6 I**		**479**	**X**	**55**	**1,2,4,5,6**	**13,100**	**15,100**	**X**	**81**	
CYCLOHEXANONE	108-94-1	5 I		[5] [Ir]		66	X	36,500	1,2,4,5	13,000	14,900	X	157	
CYFLUTHRIN	68359-37-5	0.025 I				130,000	[X]	0.001	2	[13,000]	[15,000]	[X]	448	
CYROMAZINE	66215-27-8	0.0075 I				1,200		11,000	12				222	
DDD, 4,4'-	72-54-8	0.002 P	0.24 I		[0.2415] 0.000069 C	44,000		0.16	5,6,7				[193] 350	0.02
DDE, 4,4'-	72-55-9		0.34 I		[0.34] 0.000097 C	87,000		0.04	5				348	0.02
DDT, 4,4'-	50-29-3	0.0005 I	0.34 I	[0.0005] [Ir]	[0.34] 0.000097 I	240,000		0.0055	5,6,7				260	0.02

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	0.6 I	0.0012 I			47,000,000		200	5	[13,000]	[14,900]	X	214	4.50
DIALLATE	2303-16-4		0.061 H		[0.061] [Hr]	190	[X]	40	2,4,6,8	[12,900]	[14,900]	X	[150] 328	1.39
DIAMINOTOLUENE, 2,4-	95-80-7		[3.2] 3.8 [H] C		[4] 0.0011 C	36		7,470	4				292	0.69
DIAZINON	333-41-5	[0.0009] [H] 0.0007 D		[0.0009] [Hr]		500		50	2,4,6,8			X	306	
DIBENZO[A,H]ANTHRACENE	53-70-3		7.3 N		[3.1] [T] 0.0012 C	1,800,000		0.0006	1,5,6				524	0.13
DIBENZOFURAN	**132-64-9**	**0.001 P**				**10,233**		**4.48**	**1,6,7,9**				**287**	**7.23**
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	[0.00005 71] [Ir] 0.0002 P	[1.4] 0.8 [H]	[0.000057 1] 0.0002 I	[0.00242] [H] 0.006 P	140	X	1,000	4	13,000	15,000	X	196	0.69
DIBROMOBENZENE, 1,4-	106-37-6	0.01 I				1,600		20	1				[220.4] 220	
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	[0.00005 [Hr 71] 0.009] !	[85] 2 I	[0.000057 [H] 1] 0.009 !	[0.77] I 0.0006	54	X	4,150	1,2,3,5	13,100	15,100	X	131	2.11
DIBROMOMETHANE	74-95-3	0.01 H		[0.01] [Hr]		110	X	11,400	1	13,100	15,100	X	96	4.50
DIBUTYL PHTHALATE, N-	84-74-2	0.1 I		[0.1] [Ir]		1,600		400	1,2,3			X	340	11.00
DICAMBA	**1918-00-9**	**0.03 !**				**0.27**		**5,600**	**4,5,6,8,10**				**329**	
DICHLOROACETC ACID	**76-43-6**	**0.004 !**				**8.1**	**X**	**1,000,000**	**1**	**12,900**	**14,900**	**X**	**194**	
DICHLORO-2-BUTENE, 1,4-	764-41-0				[9.3] [H] 0.0042 P	180	X	850	9	13,100	15,000	X	156	
DICHLORO-2-BUTENE, TRANS-1,4-	**110-57-6**				**0.0042 S**	**215**	**X**	**850**	**9**	**12,900**	**14,800**	**X**	**155**	
DICHLOROBENZENE, 1,2-	95-50-1	0.09 I		[0.0571] 0.2 H		350	X	147	1,4,5,6,7	13,100	15,100	X	180	0.69
DICHLOROBENZENE, 1,3-	541-73-1	[0.03] 0.003 N				360	X	106	1	13,100	15,100	X	173	0.69
DICHLOROBENZENE, P-	106-46-7	[0.03] [N] 0.07 D	[0.024] [H] 0.0054 C	[0.229] 0.8 I	[0.022] [N] 0.000011 C	510	X	82.9	1	12,900	14,900		174	0.69
DICHLOROBENZIDINE, 3,3'-	91-94-1		0.45 I		[1.19] C 0.00034	22,000		3.11	4,5,6				368	0.69
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	0.2 I		[0.0571] 0.2 H		360	X	280	1	13,200	15,000	X	-30	0.69
DICHLOROETHANE, 1,1-	75-34-3	[0.1] 0.2 [H] P	0.0057 C	[0.143] 0.5 H	[0.0056] C 0.0000016	52	X	5,000	2	13,100	15,000	X	57	0.16

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
DICHLOROETHANE, 1,2-	107-06-2	[0.03] [N] 0.02 P	0.091 I	[0.23] 2.4 D	[0.091] 0.000026 I	38	X	8,412	1,2,3,4	13,100	15,000	X	83	[0.69] 0.07
DICHLOROETHYLENE, 1,1-	75-35-4	[0.009] 0.05 I	[0.6] [I]	[0.009] 0.2 [Ir] I	[0.175] [I]	65	X	2,500	1,4,5	13,100	15,000	X	32	0.19
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.01 [I] P		[0.01] [Ir]		49	X	3,500	1	13,100	15,000	X	60	0.01
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	0.02 I		[0.02] 0.06 [Ir] P		47	X	6,300	1	13,100	15,000	X	48	0.01
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.06 I	0.0075 I	[0.8571] 1 [H] D	[0.00165] 0.0000004 7 I	16	X	20,000	1,2,3	13100	15,000	X	40	4.50
DICHLOROPHENOL, 2,4-	120-83-2	0.003 I		[0.003] [Ir]		160		4,500	1				210	5.88
DICHLOROPHENOXYACETIC ACID, 2,4-(2,4-D)	94-75-7	0.01 I		[0.01] [Ir]		59		677	4,5,6,7,10				215	1.39
DICHLOROPROPANE, 1,2-	78-87-5	0.09 D	[0.068] [H] 0.036 C	[0.0011] 0.004 I	[0.036] 0.00001 C	47	X	2,700	1,3,4	13,100	15,000	X	96	0.10
DICHLOROPROPENE, 1,3-	542-75-6	0.03 I	0.1 I	[0.0057] 0.02 I	[0.014] 0.000004 I	27	X	2,700	6	13,100	15,000	X	108	22.38
DICHLOROPROPIONIC ACID, 2,2-(DALAPON)	75-99-0	0.03 I		[0.03] [Ir]		62	X	500,000	5	13,000	14,900	X	190	2.11
DICHLORVOS	62-73-7	0.0005 I	0.29 I	[0.000143] 0.0005 I	[0.291] 0.000083 C	50		10,000	2,4,5			X	[140] 234	
DICYCLOPENTADIENE	77-73-6	[0.03] [H] 0.008 P		[0.000057 [H] 1] 0.007 P		810	X	40	5	13,000	14,900	[X]	167	
DIELDRIN	60-57-1	0.00005 I	16 I	[0.00005] [Ir]	[16.1] 0.0046 I	11,000		0.17	4,5,6			[X]	385	0.12
DIETHANOLAMINE	**111-42-2**			0.003 C		4		1,000,000	2,3,9			X	269	
DIETHYL PHTHALATE	84-66-2	0.8 I		[0.8] [Ir]		81		1,080	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	160,000	9	13,000	14,900	X	190	
DIMETHOATE	60-51-5	0.0002 I		[0.0002] [Ir]		110		25,000	4				[200] 361	2.26
DIMETHOXYBENZIDINE, 3,3-	119-90-4		0.014 H			1,300		60	9				331	0.69
DIMETHRIN	**70-38-2**	0.3 M				27,000		0.036	13				353	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
DIMETHYLAMINOAZOBENZENE, P-	60-11-7		4.6 C		[4.55] C 0.0013	1,000		13.6	7				[200] 335	4.50
DIMETHYLANILINE, N,N-	121-69-7	0.002 I				180	X	1,200	5,6,7,9	13,000	14,900	X	192	0.69
DIMETHYLBENZIDINE, 3,3-	119-93-7		[9.2] 11 H		[9.2] [Hr]	22,000		1,300	10			[X]	300	18.07
DIMETHYL METHYLPHOSHONATE	**756-79-6**	**0.06 P**	**0.0017 P**			**5**	**X**	**1,000,000**	**14**	**13,000**	**14,900**	**X**	**181**	
DIMETHYLPHENOL, 2,4-	105-67-9	0.02 I		[0.02] [Ir]		130		7,869	1,4,6,7			X	211	18.07
DINITROBENZENE, 1,3-	99-65-0	0.0001 I		[0.0001] [Ir]		150		523	3,5,6,7				[300] 291	0.69
DINITROPHENOL, 2,4-	51-28-5	0.002 I		[0.002] [Ir]		0.79		5,600	2,4,5,6,7				332	0.48
DINITROTOLUENE, 2,4-	121-14-2	0.002 I	0.31 C	[0.002] [Ir]	[0.31] C 0.000089	51		270	4,5,6				300	0.69
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.001 [H] P		[0.001] [Hr]		74		200	6				300	0.69
DINOSEB	88-85-7	0.001 I		[0.001] [Ir]		120		50	5				223	1.03
DIOXANE, 1,4-	123-91-1	0.1 D	0.011 I	3.6 D	[0.027] C 0.0000077	7.8	X	1,000,000	5	13,000	14,900	X	101	0.69
DIPHENAMID	957-51-7	0.03 I				200		260	5				210	
DIPHENYLAMINE	122-39-4	0.025 I		[0.025] [Ir]		190		300	3				302	4.50
DIPHENYLHYDRAZINE, 1,2-	122-66-7		0.8 I		[0.77] I 0.00022	660		0.252	6				309	0.69
DIQUAT	85-00-7	0.0022 I		[0.0022] [Ir]		2.6		700,000	5				355	
DISULFOTON	298-04-4	0.00004 I		[0.00004] [Ir]		1,000	[X]	25	4,5,6	[13,400]	[15,400]	X	[133] 332	6.02
DITHIANE, 1,4-	**505-29-3**	**0.01 I**				**22.7**	**X**	**3,000**	**15**	**13,000**	**14,900**		**199**	
DIURON	330-54-1	0.002 I		[0.002] [Ir]		300		42	2,4,5				354	
ENDOSULFAN	115-29-7	0.006 I		[0.006] [Ir]		2,000		0.48	4				[106] 401	2.78
ENDOSULFAN I (ALPHA)	959-98-8	0.006 S		[0.006] [Sr]		2,000		0.5	6				[200] 401	
ENDOSULFAN II (BETA)	33213-65-9	0.006 S		[0.006] [Sr]		2,300		0.45	6				390	
ENDOSULFAN SULFATE	1031-07-8	0.006 S		[0.006] [Sr]		2,300		0.117	7,9				[200] 409	
ENDOTHALL	145-73-3	0.02 I		[0.02] [Ir]		120		100,000	2				[200] 350	
ENDRIN	72-20-8	0.0003 I		[0.0003] [Ir]		11,000		0.23	4,6,7,9				245	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
EPICHLOROHYDRIN	106-89-8	[0.002] [H] 0.006 P	0.0099 I	[0.000286] I 0.001	[0.0042] I 0.0000012	35	X	65,800	1,3,4	13,000	14,900	X	116	4.50
ETHEPHON	16672-87-0	0.005 I				2		1,240,000	12				201	
ETHION	563-12-2	0.0005 I		[0.0005] [Ir]		8,700		0.85	4,6,9,10			X	[200] 415	
ETHOXYETHANOL, 2- (EGEE)	110-80-5	0.4 H		[0.057] 0.2 I		12	X	1,000,000	2	13,200	15,000	X	136	4.50
ETHYL ACETATE	141-78-6	0.9 I		[0.9] [Ir]		59	X	80,800	1,2,3,4,5,6	13,100	15,000	X	77	18.07
ETHYL ACRYLATE	140-88-5		0.048 H		[0.048] [Hr]	110	X	15,000	1,2,6	13,100	15,100	X	100	18.07
ETHYL BENZENE	100-41-4	0.1 I		[0.286] 1 I		220	X	161	1,3,4	13,100	15,000	X	136	1.11
ETHYL DIPROPYLTHIOCARBAMATE, S-(EPTC)	759-94-4	0.025 I				240	X	365	2	12,900	14,900	X	127	
ETHYL ETHER	60-29-7	0.2 I		[0.2] [Ir]		68	X	60,400	1	13,100	15,100	X	35	
ETHYL METHACRYLATE	97-63-2	0.09 H		[0.09] [Hr]		22	X	4635.5	9,10	13,100	15,000	X	117	
ETHYLENE GLYCOL	107-21-1	2 I		[2] 0.4 [Ir] C		4.4	X	1,000,000	2	13,100	15,100	X	198	10.54
ETHYLENE THIOUREA (ETU)	96-45-7	0.00008 I	[0.11] [H] 0.045 C	[0.00008] [Ir]	[0.045] 0.000013 C	0.23		20,000	2				347	4.50
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.00001 I				1,200		3.1	4				215	
FENAMIPHOS	22224-92-6	0.00025 I		[0.00025] [Ir]		300		329	2				[200] 390	
FENVALERATE (PYDRIN)	51630-58-1	0.025 I				4,400		0.085	5	[20,500]	[25,800]	X	300	
FLUOMETURON	2164-17-2	0.013 I				68		97.5	2,5,6,8				318	
FLUORANTHENE	206-44-0	0.04 I		[0.04] [Ir]		49,000		0.26	1,5,6				375	0.29
FLUORENE	86-73-7	0.04 I		[0.04] [Ir]		7,900		1.9	1				298	2.11
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	0.3 I		[0.2] 0.7 H		130	X	1,090	1,4,5,6	13,100	15,000	X	24	0.35
FONOFOS	944-22-9	0.002 I		[0.002] [Ir]		1,100	[X]	13	5,6,8	[13,400]	[15,500]	X	[130] 324	
FORMALDEHYDE	50-00-0	0.2 I	[0.0455] [Ir]	[0.0011] 0.0098 D	[0.0455] 0.000013 I	3.6	X	55,000	1	13,100	15,100	X	-21	18.07
FORMIC ACID	64-18-6	2 H		[2] 0.003 [Hr] P		0.54	X	1,000,000	2	13,000	14,900	X	101	18.07
FOSETYL-AL	39148-24-8	3 I				310		120,000	2				464	
FURAN	110-00-9	0.001 I				130	X	10,000	1	13,100	15,000	X	[31.36] 31	2.25

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
FURFURAL	98-01-1	0.003 I		[0.0143] 0.05 H		6.3	X	91,000	1,2,3	13,000	14,900	X	162	
GLYPHOSATE	1071-83-6	0.1 I		[0.1] [Ir]		3,500		12,000	1,5,6				[186] 417	
HEPTACHLOR	76-44-8	0.0005 I	4.5 I	[0.0005] [Ir]	[4.55] 0.0013 I	6,800		0.18	4,6,7				310	46.84
HEPTACHLOR EPOXIDE	1024-57-3	0.000013 I	9.1 I	[0.000013] [Ir]	[9.1] 0.0026 I	21,000		0.311	4,6,7,9				[200] 341	0.23
HEXACHLOROBENZENE	118-74-1	0.0008 I	1.6 I	[0.0008] [Ir]	[1.61] 0.00046 I	3,800		0.006	1,4,5				319	0.06
HEXACHLOROBUTADIENE	87-68-3	[0.0002] [H] 0.001 P	0.078 I	[0.0002] [Hr]	[0.077] 0.000022 I	4,700		2.89	4,5,6,7			X	215	0.69
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.006 I		[0.00006] [H] 0.0002 !		7,200		1.8	5,6,7			X	239	4.50
HEXACHLOROETHANE	67-72-1	0.001 I	0.014 I	[0.001] [Ir]	[0.014] 0.000004 I	2,200	X	50	1	13,000	15,000		187	0.69
HEXANE	110-54-3	0.06 H		[0.0571] 0.7 I		3,600	X	9.5	1,5,6	13,100	15,000	X	69	
HEXAZINONE	51235-04-2	0.033 I				41		330,000	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	0.0002 C	[17] 0.0049 I	0.0053	X	1,000,000	2	13,000	15,000	X	[113.5] 114	18.07
HYDROQUINONE	123-31-9	0.04 [H] P	0.056 P	[0.04] [Hr]		10		70,000	2,3,5				285	18.07
INDENO[1,2,3-CD]PYRENE	193-39-5		0.73 N		[0.31] [T] 0.00011 C	31,000,000		0.062	5				536	0.17
IPRODIONE	36734-19-7	0.04 I				1,100		13	2				545	
ISOBUTYL ALCOHOL	78-83-1	0.3 I		[0.3] [Ir]		60	X	81,000	1,2,3,4,5	13,000	14,900	X	108	17.57
ISOPHORONE	78-59-1	0.2 I	0.00095 I	[0.2] 2 [Ir] C	[0.00095] [Ir]	31		12,000	2,4,5			X	215	4.50
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	0.1 I				1.64		50,000	13			X	230	
KEPONE	143-50-0	0.0005 D	16 C		[16.1] 0.0046 C	55,000		7.6	4				350	0.17
MALATHION	121-75-5	0.02 I		[0.02] [Ir]		1,300	[X]	143	4	[14,000]	[16,300]	X	[157] 351	2.46
MALEIC HYDRAZIDE	123-33-1	0.5 I		[0.5] [Ir]		2.8		6,000	4				260	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
MANEB	12427-38-2	0.005 I				1		23	9,13				351	
MERPHOS OXIDE	78-48-8	0.00003 I				53,000	[X]	2.3	8,10,12	[13,100]	[15,100]	X	[150] 392	
METHACRYLONITRILE	126-98-7	0.0001 I		[0.0002] 0.0007 H		21	X	25,700	1	13,100	15,100	X	90	
METHAMIDOPHOS	10265-92-6	0.00005 I				5		2,000,000	5				223	
METHANOL	67-56-1	0.5 I		[0.5] 4 [Ir] C		2.8	X	1,000,000	2	13,100	15,100	X	65	36.14
METHOMYL	16752-77-5	0.025 I		[0.025] [Ir]		20		58,000	2				[144] 228	
METHOXYCHLOR	72-43-5	0.005 I		[0.005] [Ir]		63,000		0.045	4,5,6				346	0.69
METHOXYETHANOL, 2-	109-86-4	[0.001] [H] 0.003 P		[0.00571] 0.02 I			X	1,000,000	2	13,100	15,000	X	[124.3] 124	4.50
METHYL ACETATE	79-20-9	1 H				30	X	243,500	4,5,6	13,100	15,100	X	[56.9] 57	
METHYL ACRYLATE	96-33-3	0.03 H				55	X	52,000	1,2,5	13,100	15,100	X	70	18.07
METHYL CHLORIDE	74-87-3	0.004 M	0.013 H	[0.029] [D] 0.09 I	[0.0063] 0.0000018 H	6	X	6,180	1,2,3,4	13,200	15,000	X	-24	4.50
METHYL ETHYL KETONE	78-93-3	0.6 I		[0.286] 5 I		32	X	275,000	1,2,3,4,5	13,100	15,100	X	80	2.57
METHYL ISOBUTYL KETONE	108-10-1	0.08 H		[0.023] 3 [H] I		17	X	19,550	1,2,4,5	13,100	15,100	X	117	18.07
METHYL ISOCYANATE	624-83-9			0.001 C		10	X	100,000	7	13,000	15,000	X	40	
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	0.04 N		0.005 N		54	X	17,500	1	13,100	15,100	X	128	
METHYL METHACRYLATE	80-62-6	1.4 I		[0.2] 0.7 I		10	X	15,600	1	13,100	15,100	X	100	4.50
METHYL METHANESULFONATE	66-27-3		0.099 C		[0.098] 0.000028 C	5.2		200,000	2			X	203	
METHYL PARATHION	298-00-0	0.00025 I		[0.00025] [Ir]		790	[X]	25	4,5,6	[13,500]	[15,600]	[X]	[133] 348	3.61
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	0.006 H		[0.011] 0.04 H		2,200	X	89	9	13,100	15,000	X	163	
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	[0.857] [Ir]	0.0018 C	[0.857] 3 I	[0.0018] 0.0000002 6 C	12	X	45,000	1,2,4,6	13,100	15,100	X	55	0.69
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	0.0005 I				112		1,000	5,6,8,9				287	1.39
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	[0.0007] [H] 0.002 P	[0.13] 0.1 [H] P	[0.0007] [Hr]	[0.13] [H] 0.00043 C	3,000		13.9	10				379	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
METHYLNAPHTHALENE, 2-	91-57-6	[0.02] [S] 0.004 I		[0.00086] [Ir] 0.003 S		16,000		25	1			[X]	241	
METHYLSTYRENE, ALPHA	98-83-9	0.07 H				660	X	560	9	13,100	15,100	X	[165.4] 165	
METOLACHLOR	51218-45-2	0.15 I				182	X	530	1,5	13,000	15,000	X	100	
METRIBUZIN	21087-64-9	0.025 I				95		1,200	1,5				367	
MONOCHLOROACETIC ACID	79-11-8	0.01 M				0.24	X	858,000	17	13,000	14,900		189	
NAPHTHALENE	91-20-3	0.02 I		[0.00086] 0.003 I		950		30	3				218	0.98
NAPHTHYLAMINE, 1-	134-32-7		1.8 S		[1.8] 0.00051 S	3,200		1,690	2				301	0.69
NAPHTHYLAMINE, 2-	91-59-8		1.8 C		[1.8] 0.00051 C	87		6.4	6				306	0.69
NAPROPAMIDE	15299-99-7	0.1 I				880		70	2				399	
NITROANILINE, M-	99-09-2	[0.00005 71] [S] 0.0003 P	0.021 P	[0.000057 [S] 1] 0.001 P		18		100	3				306	
NITROANILINE, O-	88-74-4	[0.00005 [Hr 71] 0.003] P		[0.000057 [H] 1] 0.0001 P		27		1,200	6				284	
NITROANILINE, P-	100-01-6	[0.00005 [S] 71] 0.004 P	0.02 P	[0.000057 [S] 1] 0.006 P		15		800	2				332	
NITROBENZENE	98-95-3	[0.0005] 0.002 I		[0.0006] [H] 0.009 I	0.00004 I	130		2,000	2			X	211	0.64
NITROGUANIDINE	556-88-7	0.1 I				0.13		4,400	9				231	
NITROPHENOL, 2-	88-75-5	0.008 S		[0.008] [S]		37		2,100	1,2,3,4,5,6				215	9.01
NITROPHENOL, 4-	100-02-7	0.008 N		[0.008] [Nr]		230		16,000	2				279	25.81
NITROPROPANE, 2-	79-46-9	[0.00571] [Ir]	[9.4] [Hr]	[0.00571] 0.02 I	[9.4] 0.0027 H	20	X	16,700	1,3,4,5	13,000	14,900	X	120	0.69
NITROSODIETHYLAMINE, N-	55-18-5		150 I		[151] 0.043 I	26	X	93,000	10	13,000	14,900	X	176	0.69
NITROSODIMETHYLAMINE, N-	62-75-9	0.000008 P	51 I		[49] 0.014 I	8.5	X	1,000,000	2	13,000	14,900	X	154	0.69
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3		5.4 I		[5.6] 0.016 I	450		1,200	0,13			X	235	0.69
NITROSODI-N-PROPYLAMINE, N-	621-64-7	[0.095] [D]	7 I	[0.095] [Dr]	[7] 0.002 C	11		9,900	6			X	206	0.69

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
NITROSODIPHENYLAMINE, N-	86-30-6	0.02 P	0.0049 I		[0.0091] 0.0000026 C	580		35	1				269	3.72
NITROSO-N-ETHYLUREA, N-	759-73-9		[140] 27 [H] C		[27] 0.0077 C	2		13,000	9				[125] 223	1,734.48
OCTYL PHTHALATE, DI-N-	117-84-0	[0.02] [H] 0.04 P		[0.02] [Hr]		980,000,000		3	5			X	234	0.69
OXAMYL (VYDATE)	23135-22-0	0.025 I		[0.025] [Ir]		7.1		280,000	2				[101] 334	
PARAQUAT	1910-42-5	0.0045 I				16,200		660,000	6,8				352	
PARATHION	56-38-2	0.006 H		[0.006] [Hr]		2,300		20	2,4,5,6,7			X	375	
PCB-1016 (AROCLOR)	12674-11-2	0.00007 I	[0.09] 0.07 [N] !	[0.00007] [Ir]	[0.09] [Nr 0.00002] !	110,000		0.25	5			X	[340] 325	
PCB-1221 (AROCLOR)	11104-28-2		[0.5] 2 [S] !		b [S] !	1,900		0.59	5			X	[340] 275	
PCB-1232 (AROCLOR)	11141-16-5		[0.5] 2 [S] !		[0.5] [S] 0.00057 !	1,500		1.45	7			X	[340] 290	
PCB-1242 (AROCLOR)	53469-21-9		[0.5] 2 [N] !		[0.5] [Nr 0.00057] !	48,000		0.1	5			X	[340] 325	
PCB-1248 (AROCLOR)	12672-29-6		[1.8] 2 [S] !		[1.8] [S] 0.00057 !	190,000		0.054	7,9,11			X	340	
PCB-1254 (AROCLOR)	11097-69-1	0.00002 I	[1.8] 2 [N] !	[0.00002] [Ir]	[1.8] [Nr 0.00057] !	810,000		0.057	5			X	[340] 365	
PCB-1260 (AROCLOR)	11096-82-5		[0.6] 2 [N] !		[0.6] [Nr 0.00057] !	1,800,000		0.08	5				385	
PEBULATE	1114-71-2	0.05 H				630	[X]	92	5	[13,000]	[14,900]	X	[142] 303	
PENTACHLOROBENZENE	608-93-5	0.0008 I		[0.0008] [Ir]		32,000		0.74	1,5,6,7				277	0.37
PENTACHLOROETHANE	76-01-7		0.09 P			1,905	X	480	1,3	13,100	15,100	X	160	
PENTACHLORONITROBENZENE	82-68-8	0.003 I	0.26 H	[0.003] [Ir]	[0.26] [Hr]	7,900		0.44	4,6,8				328	0.36
PENTACHLOROPHENOL	87-86-5	0.03 I	0.12 I	[0.03] [Ir]	[0.12] [Ir] 0.0000046 C	20,000		14	1,2,4,5				310	0.17

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
PHENACETIN	62-44-2		0.0022 C		[0.0022] 0.0000006 C 3	110		763	2,3,9				[200] 341	4.50
PHENANTHRENE	85-01-8	0.3 S		[0.3] [Sr]		38,000		1.1	1,4,5				341	0.63
PHENOL	108-95-2	[0.6] 0.3 I		[0.6] 0.2 [Ir] C		22	X	84,300	1,2,3,4	13,000	14,900	[X]	182	36.14
PHENYL MERCAPTAN	108-98-5	0.00001 H				562	X	653	5,9	13,000	15,000	X	170	
PHENYLENEDIAMINE, M-	108-45-2	0.006 I		[0.006] [Ir]		12		351,000	3				286	4.50
PHENYLPHENOL, 2-	90-43-7		[0.00194] 0.0019 H			5,700		700	5				280	18.07
PHORATE	298-02-2	0.0002 H		[0.0002] [Hr]		810	[X]	50	2	[13,100]	[15,100]	X	[118] 319	
PHTHALIC ANHYDRIDE	85-44-9	2 I		[0.0343] [H] 0.02 C		79		6,170	2				285	13,490.40
PICLORAM	1918-02-1	0.07 I				15		430	2				373	
POLYCHLORINATED BIPHENYLS (AROCLORS) (PCBS)	1336-36-3		2 I		[2] 0.00057 I			0.0505	10,13				360	
PROMETON	1610-18-0	0.015 I				346		750	2,5				347	
PRONAMIDE	23950-58-5	0.075 I		[0.075] [Ir]		200		15	2				321	
PROPANIL	709-98-8	0.005 I				160		225	2				355	
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0			7 C		25	X	1,000,000	2	13,000	14,900	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	0.04 N				720	X	52	6	13,100	15,100	X	[159.2] 159	
PROPYLENE OXIDE	75-56-9	[0.00857] [Ir]	0.24 I	[0.00857] I 0.03	[0.013] I 0.0000037	25	X	405,000	1	13,100	15,000	X	34	
PYRENE	129-00-0	0.03 I		[0.03] [Ir]		68,000		0.132	1				393	0.07
PYRIDINE	110-86-1	0.001 I		[0.001] [Ir]		0.0066	X	1,000,000	2	13,100	15,000	X	115	18.07
QUINOLINE	91-22-5		[12] 3 [H] I			1,300		60,000	1,3,5		[14,900]	X	[237.7] 238	12.65
QUIZALOFOP (ASSURE)	76578-14-8	0.009 I				580		0.3	2				220	
RDX	121-82-4	0.003 I	0.11 I		0.0000031 I	70		59.9	1,9				353	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A

TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES

A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
RESORCINOL	108-46-3	2 TE				2		717,000					280	
RONNEL	299-84-3	0.05 H				580		40	2				[151] 349	
SIMAZINE	122-34-9	0.005 I	0.12 H	[0.005] [Ir]	[0.12] [Hr]	110		5	5				225	
STRYCHNINE	57-24-9	0.0003 I		[0.0003] [Ir]		280		143	5				270	4.50
STYRENE	100-42-5	0.2 I		[0.286] 1 I		910	X	300	5	13,100	15,100	X	145	1.20
TEBUTHIURON	34014-18-1	0.07 I				620		2,500	2				394	
TERBACIL	5902-51-2	0.013 I				53		710	2				396	
TERBUFOS	13071-79-9	0.000025 H		[0.000025] [Hr]		510	[X]	5	6	[13,000]	[15,000]	X	[69] 332	
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	0.0003 I		[0.0003] [Ir]		1,800		0.583	1,5,6,7				245	0.69
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8-(TCDD)	1746-01-6	0.000000 001 D	[150000] [H] 130000 C	0.0000000 4 C	[150000] [H] 38 C	4,300,000		0.0000193	6				412	0.21
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.03 I	0.026 I	[0.03] [Ir]	[0.0259] 0.0000074 I	980	X	1100	1	13,000	14,600	X	[130.5] 131	3.79
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	[0.06] [N] 0.004 P	0.2 I	[0.06] [Nr]	[0.203] 0.000058 I	79	X	2,860	2	13,100	15,100	X	147	0.56
TETRACHLOROETHYLENE (PCE)	127-18-4	0.01 I	0.052 N	[0.14] 0.5 N	[0.00203] 0.0000005 8 N	300	X	162	1,2,3,4,5	13,100	15,000	X	121	0.03
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	0.03 I		[0.03] [Ir]		6,200		183	6				[150] 288	0.69
TETRAETHYL LEAD	78-00-2	0.000000 1 I		[0.000000 1] [Ir]		4,900		0.8	5			X	[200] 202	4.50
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	0.0005 I		[0.0005] [Ir]		550	[X]	25	2	[13,000]	[14,900]	X	[136] 349	
TETRAHYDROFURAN	109-99-9	0.2 N	0.0076 N	0.3 N	0.0000019 4 N	43	X	300,000	1,6,7	13,100	15,100	X	66	
THIOFANOX	39196-18-4	0.0003 H				0.022		5,200	9				280	
THIRAM	137-26-8	0.005 I		[0.005] [Ir]		1,000		30	4				[200] 339	
TOLUENE	108-88-3	[0.2] 0.08 I		[0.114] 5 I		130	X	532.4	1,2,3,4	13,100	15,000	X	111	9.01
TOLUIDINE, M-	108-44-1		[0.24] 0.18 S		[0.24] [Sr 0.000051] S	140		15,030	6			X	203	
TOLUIDINE, O-	95-53-4		[0.24] 0.18 [H] C		[0.24] [Hr 0.000051] C	410		15,000	1,3,5			X	200	18.07
TOLUIDINE, P-	106-49-0		0.19 H		[0.19] [Hr]	320		7410	1,2,3				200	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
TOXAPHENE	8001-35-2	[0.001] [D]	1.1 I	[0.001] [Dr]	[1.12] I 0.00032	1,500		3	2,4,5				432	
TRIALLATE	2303-17-5	0.013 I				2,000		4	5			X	[117] 343	
TRIBROMOMETHANE (BROMOFORM)	75-25-2	0.02 I	0.0079 I	[0.02] [Ir]	[0.00385] 0.0000011 I	130	X	3,050	1,2,3,4	13,100	15,100	X	149	0.69
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	30 I		[8.57] 30 H		1,200	X	170	1	13,100	15,000	X	[47.7] 48	0.35
TRICHLOROBENZENE, 1,2,4-	120-82-1	0.01 I	0.0036 C	[0.0571] [H] 0.004 P		1,500		44.4	1,4,6,7			X	213	0.69
TRICHLOROBENZENE, 1,3,5-	108-70-3	0.006 M		[0.0571] 0.004 S		3,100		5.8	5				208	
TRICHLOROETHANE, 1,1,1-	71-55-6	[0.28] 2 [N] I		[0.63] 5 [N] I		100	X	1,495	1,4,5,6	13,100	15,000	X	74	0.05
TRICHLOROETHANE, 1,1,2-	79-00-5	0.004 I	0.057 I	[0.004] [Ir]	[0.056] I 0.000016	76	X	4,420	1	13,100	15,100	X	114	0.03
TRICHLOROETHYLENE (TCE)	79-01-6	0.006 N	0.011 N	[0.143] 0.5 D	[0.00595] N 0.0000017	93	X	1,100	1	13,100	15,000	X	87	0.02
TRICHLOROPHENOL, 2,4,5-	95-95-4	0.1 I		[0.1] [Ir]		2,400		1,000	1,2,4				246	0.14
TRICHLOROPHENOL, 2,4,6-	88-06-2	[0.0003] [M] 0.001 P	0.011 I	[0.0003] [Mr]	[0.01085] I 0.0000031	1,100		850	1,2,4,5				246	0.14
TRICHLOROPHENOXYACETIC ACID, 2,4,5-(2,4,5-T)	93-76-5	0.01 I		[0.01] [Ir]		43		278	2,4,5				279	1.39
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	0.008 I		[0.008] [Ir]		1,700		140	2				[200] 353	
TRICHLOROPROPANE, 1,1,2-	598-77-6	0.005 I				24	X	2,700	14	13,100	15,000	X	117	
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.006 I	7 H	[0.0014] N 0.005	[7] [Hr]	280	X	1,896	1,4,6	13,100	15,100	X	157	0.35
TRICHLOROPROPENE, 1,2,3-	96-19-5	[0.005] [H] 0.01 P		0.001 P		190	X	2,700	14	13,100	15,000	X	142	
TRIETHYLAMINE	121-44-8			0.007 I		51	X	55,000	1,4	13,100	15,100	X	90	
TRIFLURALIN	1582-09-8	0.0075 I	0.0077 I	[0.0075] [Ir]	[0.0077] [Ir]	720		4	2,5,6,7				[139] 382	
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	0.05 [N] P		[0.0017] [N] 0.007 P		2,200	X	56	1	13,100	15,000	X	169	4.50
TRIMETHYLBENZENE, 1,3,5-	108-67-8	0.05 N		[0.0017] [N] 0.006 P		660	X	48.9	1	13,100	15,100	X	[164.7] 165	
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.0001 P	0.017 N				X	1,800	2,3,5	13,000	15,000	X	190	18.07
TRINITROTOLUENE, 2,4,6-	118-96-7	0.0005 I	0.03 I			1		100	2				240	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
TABLE 5 – PHYSICAL AND TOXICOLOGICAL PROPERTIES
A. ORGANIC REGULATED SUBSTANCES

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC (mg/m^3)	[CSFi (mg/kg-d)-1] IUR $(\mu g/m^3)^{-1}$	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 $(K)(yr^{-1})$
VINYL ACETATE	108-05-4	1 [I] H		[0.0571] 0.2 I		2.8	X	20,000	1	13,200	15,000	X	73	
VINYL BROMIDE (BROMOETHENE)	593-60-2	[0.000857] [Ir]	[0.11] [Hr]	[0.000857] 0.003 I	[0.11] 0.000032 H	150	X	4,180	12	13,100	15,000	X	[15.8] 16	0.09
VINYL CHLORIDE	75-01-4	0.003 I	[1.5] 0.72 I	[0.029] 0.1 I	[0.03] 0.0000044 I	10	X	2,700	1	13,200	15,000	X	-13	0.09
WARFARIN	81-81-2	0.0003 I		[0.0003] [Ir]		910		17	4				356	4.50
XYLENES (TOTAL)	1330-20-7	[2] 0.2 I		[0.12] 0.1 [D] I		350	X	175	13	13,100	15,000	X	140	0.69
ZINEB	12122-67-7	0.05 I				19		10	4				474	

[1] Aqueous solubility references are keyed to the numbered list found at 250.304(f). Where there are multiple sources cited, the table value is the median of the values in the individual references.

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)
M = EPA Drinking Water Regulations and Health Advisories

N = EPA NCEA Provisional Value
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value

APPENDIX A
Table 5 – Physical and Toxicological Properties
B. Inorganic Regulated Substances

Regulated Substance	CAS	RfDo (mg/kg-d)	CSFo $(mg/kg\text{-}d)^{-1}$	[RfDi (mg/kg-d)] RfC $(mg/m^3)^{-1}$	[CSFi $(mg/kg\text{-}d)^{-1}$] IUR $(\mu g/m^3)^{-1}$	Kd
ALUMINUM	7429-90-5	1 [N] P		[0.001] [N] 0.005 P		9.9
ANTIMONY	7440-36-0	0.0004 I		[0.0004] [Ir]		45
ARSENIC	7440-38-2	0.0003 I	1.5 I	[0.0003] [Ir] 0.000015 C	[15] 0.0043 I	29
BARIUM AND COMPOUNDS	7440-39-3	[0.07] 0.2 I		[0.0001] 0.0005 H		41
BERYLLIUM	7440-41-7	0.002 I		[0.00000571] 0.00002 [Ir] I	[8.4] 0.0024 I	790
BORON AND COMPOUNDS	7440-42-8	[0.09] 0.2 I		[0.0057] 0.02 H		3
CADMIUM	7440-43-9	0.0005 I	[0.38] [C]	[0.0005] [Ir] 0.00001 D	[6.3] 0.0018 I	75
CHROMIUM III	16065-83-1	1.5 I				1,800,000
CHROMIUM VI	18540-29-9	0.003 I		[0.00003] 0.000008 I	[42] 0.084 I	19
COBALT	7440-48-4	[0.02] 0.0003 [N] P		[0.0000057] [D] 0.000006 P	0.009 P	45
COPPER	7440-50-8	[0.0371] 0.037 H				[360] 430
CYANIDE, FREE	57-12-5	0.02 I		[0.02] [Ir]		9.9
FLUORIDE	16984-48-8	0.04 C		0.013 C		
IRON	7439-89-6	[0.3] 0.7 [N] P		[0.3] [Nr]		25
LEAD	7439-92-1		0.0085 C		[0.042] 0.000012 C	[890] 900
LITHIUM	7439-93-2	0.002 P				300
MANGANESE	7439-96-5	[0.14] 0.047 I		[0.0000143] 0.00005 I		65
MERCURY	7439-97-6	[0.0003] [M] 0.00016 C		[0.000086] 0.0003 I		52
MOLYBDENUM	7439-98-7	0.005 I				20
NICKEL	7440-02-0	0.02 I		[0.000057] 0.00009 D	[0.84] 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		[0.005] 0.02 [Ir] C		5
SILVER	7440-22-4	0.005 I		[0.005] [Ir]		8.3
THALLIUM	7440-28-0	0.00007 I		[0.00007] [Ir]		71
TIN	7440-31-5	0.6 H		[0.6] [Hr]		250
VANADIUM	7440-62-2	0.007 H		[0.000057] [D]		1,000
ZINC	7440-66-6	0.3 I		[0.3] [Ir]		62

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)
[M = EPA Drinking Water Regulations and Health Advisories]
[N = EPA NCEA Provisional Values]
P = EPA Provisional Peer-Reviewed Toxicity Value
[r = route-to-route extrapolation]
s = surrogate

APPENDIX A
Table 6 - Threshold of Regulation Compounds

REGULATED SUBSTANCE	CASRN	ALL AQUIFER GROUNDWATER MSC (µg/L)	Residential Soil MSC (mg/kg) 0-15 feet	Non-Residential Soil MSCs		Soil to Groundwater (mg/kg)
				Surface Soil (mg/kg) 0-2 feet	Subsurface Soil (mg/kg) 2-15 feet	
ACETIC ACID	64-19-7	5	100	100	100	0.5
ACETIC ANHYDRIDE	108-24-7	5	100	100	100	0.5
AMYL ACETATE, N-	628-63-7	5	100	100	100	0.5
AMYL ACETATE, SEC-	626-38-0	5	100	100	100	0.5
ANTU (ALPHA-NAPHTHYLTHIOUREA)	86-88-4	5	100	100	100	0.5
AZINPHOS-METHYL (GUTHION)	86-50-0	5	100	100	100	0.5
[BETA PROPIOLACTONE]	**[57-57-8]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
BHC, DELTA	**319-86-8**	**5**	**100**	**100**	**100**	**0.5**
BIS(2-CHLOROETHOXY)METHANE	111-91-1	5	100	100	100	0.5
BROMOPHENYL PHENYL ETHER, 4-	101-55-3	5	100	100	100	0.5
BUTYL ACETATE, N-	123-86-4	5	100	100	100	0.5
BUTYL ACETATE, SEC-	105-46-4	5	100	100	100	0.5
BUTYL ACETATE, TERT-	540-88-5	5	100	100	100	0.5
BUTYLAMINE, N-	109-73-9	5	100	100	100	0.5
CALCIUM CHROMATE	13765-19-0	5	100	100	100	0.5
CALCIUM CYANAMIDE	156-62-7	5	100	100	100	0.5
CARBONYL FLUORIDE	353-50-4	5	100	100	100	0.5
CATECHOL	120-80-9	5	100	100	100	0.5
CHLOROACETALDEHYDE	107-20-0	5	100	100	100	0.5
CHLOROETHYL VINYL ETHER, 2-	110-75-8	5	100	100	100	0.5
CHLOROPHENYL PHENYL ETHER, 4-	7005-72-3	5	100	100	100	0.5
[CYCLOHEXANE]	**[10-82-7]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
DECABORANE	17702-41-9	5	100	100	100	0.5
[DIBENZOFURAN]	**[132-64-9]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
[DICHLORO-2-BUTENE, TRANS-1,3-]	**[110-57-6]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
DIETHANOLAMINE	111-42-2	5	100	100	100	0.5
DIETHYLAMINE	109-89-7	5	100	100	100	0.5
DIGLYCIDYL ETHER (DGE)	7/5/2238	5	100	100	100	0.5
DIMETHYL PHTHALATE	131-11-3	5	100	100	100	0.5
DIMETHYL SULFATE	77-78-1	5	100	100	100	0.5
DIMETHYLPHENETHYLAMINE, ALPHA, ALPHA-	122-09-8	5	100	100	100	0.5
[DINITRO-O-CRESOL, 4,6-]	**[534-52-1]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
DIOXATHION	78-34-2	5	100	100	100	0.5
ETHYL METHANESULFONATE	62-50-0	5	100	100	100	0.5
ETHYLAMINE	75-04-7	5	100	100	100	0.5
ETHYLENE CHLORHYDRIN	107-07-3	5	100	100	100	0.5
FAMPHUR	52-85-7	5	100	100	100	0.5
FENSULFOTHION	115-90-2	5	100	100	100	0.5
HEXACHLOROPROPENE	1888-71-7	5	100	100	100	0.5
[HEXANONE, 2- (METHYL N-BUTYL KETONE)]	**[591-78-6]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
IODOMETHANE	74-88-4	5	100	100	100	0.5
ISOAMYL ACETATE	123-92-2	5	100	100	100	0.5
ISOBUTYL ACETATE	110-19-0	5	100	100	100	0.5
ISODRIN	465-73-6	5	100	100	100	0.5

[1] The value in the table is 100 times the groundwater MSC.
The option to use the SPLP is also available to calculate the soil to groundwater numeric value (See Section 250.310)

APPENDIX A
Table 6 - Threshold of Regulation Compounds

REGULATED SUBSTANCE	CASRN	ALL AQUIFER GROUNDWATER MSC (µg/L)	Residential Soil MSC (mg/kg) 0-15 feet	Non-Residential Soil MSCs		Soil to Groundwater (mg/kg)
				Surface Soil (mg/kg) 0-2 feet	Subsurface Soil (mg/kg) 2-15 feet	
ISOPHORONE DIISOCYANATE	4098-71-9	5	100	100	100	0.5
ISOSAFROLE	120-58-1	5	100	100	100	0.5
[LITHIUM]	**7439-93-2**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
LITHIUM HYDRIDE	7580-67-8	5	100	100	100	0.5
MANGANESE CYCLOPENTADIENYL TRICARBONYL	12079-65-1	5	100	100	100	0.5
METHYL HYDRAZINE	60-34-4	5	100	100	100	0.5
METHYL ISOAMYL KETONE	110-12-3	5	100	100	100	0.5
METHYL ISOCYANATE	624-83-9	5	100	100	100	0.5
METHYL MERCAPTAN	74-93-1	5	100	100	100	0.5
METHYLAMINE	74-89-5	5	100	100	100	0.5
[METHYLCHLOROPHENOXYACETIC ACID (MCPA)]	**[94-74-9]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
MEVINPHOS	7786-34-7	5	100	100	100	0.5
MONOCROTOPHOS	6923-22-4	5	100	100	100	0.5
NAPHTHOQUINONE, 1,4-	130-15-4	5	100	100	100	0.5
NITRIC ACID	7697-37-2	5	100	100	100	0.5
NITROQUINOLINE-1-OXIDE, 4-	56-57-5	5	100	100	100	0.5
OSMIUM TETROXIDE	20816-12-0	5	100	100	100	0.5
PENTABORANE	19624-22-7	5	100	100	100	0.5
PENTACHLOROETHANE	76-01-7	5	100	100	100	0.5
PERCHLOROMETHYL MERCAPTAN	594-42-3	5	100	100	100	0.5
[PHENYL MERCAPTAN]	**[108-98-5]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
PICOLINE, 2-	109-06-8	5	100	100	100	0.5
PROPANOL, 1-	71-23-8	5	100	100	100	0.5
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	5	100	100	100	0.5
PROPIONIC ACID	79-09-4	5	100	100	100	0.5
PROPIONITRILE (ETHYL CYANIDE)	107-12-0	5	100	100	100	0.5
PROPYLENE IMINE	75-55-8	5	100	100	100	0.5
PYRETHRUM	8003-34-7	5	100	100	100	0.5
QUINONE (p-BENZOQUINONE)	106-51-4	5	100	100	100	0.5
[RESORCINOL]	**[108-46-3]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
SELENIUM HEXAFLUORIDE	7783-79-1	5	100	100	100	0.5
SODIUM BISULFITE	7631-90-5	5	100	100	100	0.5
SULFIDE	18496-25-8	5	100	100	100	0.5
SULFUR MONOCHLORIDE	10025-67-9	5	100	100	100	0.5
SULFURIC ACID	7664-93-9	5	100	100	100	0.5
TELLURIUM	13494-80-9	5	100	100	100	0.5
TELLURIUM HEXAFLUORIDE	7783-80-4	5	100	100	100	0.5
TEPP (TETRAETHYL PYROPHOSPHATE)	107-49-3	5	100	100	100	0.5
[TETRAHYDROFURAN]	**[109-99-9]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
TETRANITROMETHANE	509-14-8	5	100	100	100	0.5
THIONAZIN	297-97-2	5	100	100	100	0.5
[TRIETHYLAMINE]	**[121-44-8]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**
TRIETHYLPHOSPHOROTHIOATE, O,O,O-	126-68-1	5	100	100	100	0.5
[TRINITROGLYCEROL (NITROGLYCERIN)]	**[55-63-0]**	**[5]**	**[100]**	**[100]**	**[100]**	**[0.5]**

[1] The value in the table is 100 times the groundwater MSC.
The option to use the SPLP is also available to calculate the soil to groundwater numeric value (See Section 250.310)

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/m^3 (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.

TABLE 8
CONSTITUENTS OF POTENTIAL ECOLOGICAL CONCERN

METALS

Arsenic III
Arsenic V
Barium
Beryllium
Cadmium
Chromium III
Chromium VI
Cobalt
Copper
Iron
Lead
Manganese
Mercury, inorganic
Mercury, methyl
Molybdenum
Nickel
Selenium
Vanadium
Zinc
Cyanide

ORGANICS

Acenaphthene
Aldrin *
Benzene
Benzo(a)pyrene
Biphenyl
Bis(2-ethylhexyl)phthalate
Bromophenyl phenyl ether,4-
Butylbenzyl phthalate
Chlordane *
Chlorobenzene
DDT (and metabolites)
Diazinon
Dibenzofuran
Dichlorobenzene,1,1-

ORGANICS cont'd

Dichlorobenzene,1,2-
Dichlorobenzene,1,3-
Dichlorobenzene,1,4-
Dieldrin
Diethyl phthalate
Di-n-butyl phthalate
Endosulfan (mixed isomers)
Endosulfan, alpha
Endosulfan, beta
Endrin
Ethylbenzene
Fluoranthene
Fluorene
Heptachlor
Hexachloroethane
Hexachlorocyclohexane (Lindane)
Kepone *
Malathion
Methoxychlor
Mirex *
Naphthalene
Pentachlorobenzene
Pentachlorophenol
Polynuclear aromatic hydrocarbons
Polychlorinated biphenyls (PCB)
Phenanthrene
Pyrene
Tetrachloroethane,1,1,2,2-
Tetrachloroethylene
Tetrachloromethane
Toluene
Toxaphene
Tribromomethane
Trichlorobenzene,1,2,4-
Trichloroethane,1,1,1-
Trichloroethylene
Xylenes

11/24/2001

[Pa.B. Doc. No. 10-432. Filed for public inspection March 5, 2010, 9:00 a.m.]