RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 250]

Administration of the Land Recycling Program

The Environmental Quality Board (Board) amends Chapter 250 (relating to administration of Land Recycling Program) to read as set forth in Annex A. These amendments satisfy the obligation of the Department of Environmental Protection (Department), as specified in § 250.11 (relating to periodic review of MSCs), to review new scientific information that relates to the basis of medium-specific concentrations (MSC) as it becomes available and to propose appropriate changes for consideration by the Board no more than 36 months after the effective date of the most recently promulgated MSCs.

This final-form rulemaking was adopted by the Board at its meeting on April 19, 2016.

A. *Effective Date*

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

B. *Contact Persons*

For further information, contact Troy Conrad, Program Manager, Land Recycling Program, P.O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 783-7816; or Keith Salador, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 783-8075. Persons with a disability may use the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available electronically through the Department's web site at http://www.dep.state.pa.us.

C. *Statutory Authority*

This final-form rulemaking is being made under the authority of sections 104(a) and 303(a) of the Land Recycling and Environmental Remediation Standards Act (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 act authorizes the Board to adopt Statewide health standards as well as appropriate mathematically valid statistical tests to define compliance with the act and other regulations that may be needed to implement the act. Section 303(a) of the act authorizes the Board to promulgate Statewide health standards for regulated substances for each environmental medium and to promulgate methods used to calculate the standards. Section 1920-A of The Administrative Code of 1929 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*

Section 250.11 requires the Department to review new scientific information that is used to calculate MSCs under the Statewide health standard and to propose appropriate changes to the Board at least every 36 months. The changes serve the public as they are based on the most up-to-date health and other scientific information to protect human health and welfare. In addition, the changes serve the public and regulated community as they provide clear information on what is required to clean up contaminated sites. This final-form rulemaking was reviewed by the Cleanup Standards Scientific Advisory Board (CSSAB). This final-form rulemaking was discussed and approved at the CSSAB meeting held on December 17, 2014. The CSSAB supported all aspects of the rulemaking except that they raised questions regarding the retention of the groundwater MSC for Methyl Tertiary Butyl Ether (MTBE). As discussed further in Section G of this preamble, the CSSAB asserted that the MTBE groundwater MSC was based on aesthetic considerations under a United States Environmental Protection Agency (EPA) published drinking water advisory rather than specific health-based criteria as required under the act and the regulations thereunder. This final-form rulemaking was reviewed by the Storage Tank Advisory Committee (STAC) on March 3, 2015. The STAC supported all aspects of this final-form rulemaking except for the groundwater MSC for MTBE, reiterating the same questions as the CSSAB.

E. *Summary of Regulatory Requirements*

§ 250.5. Public notice by applicant

Amendments to this section add the requirement that documented proof of the mailing of municipal notices and the arranging for publication of newspaper notices that are required under the act shall be submitted at the same time the Notice of Intent to Remediate (NIR), plan or report is submitted to the Department. This will allow the Department to assure that the municipality and the public are notified of the NIR, plan or report in a timely fashion.

§ 250.7. Fees

Amendments to this section clarify that the Department may waive the fee for resubmission of a plan or report if the resubmission is related to correcting minor administrative or technical deficiencies.

§ 250.301. Scope

Amendments to this section add certain regulated substances to the list of substances classified as mutagens based on recently published scientific information.

§250.304. MSCs for groundwater

Prior to the January 2011 edition of the Drinking Water Standards and Health Advisories, EPA Office of Water Publication No. EPA 820-R-11-002 (January, 2011), when the EPA published a lifetime Health Advisory Level (HAL) and a 10^{-4} Cancer Risk concentration for a chemical, the lifetime HAL concentration would include an adjustment for cancer risk. Starting with the January 2011 edition of the Drinking Water Standards and Health Advisories, the EPA changed its Cancer Classification system and started publishing lifetime HALs that did not include adjustments for cancer risk even when a 10^{-4} Cancer Risk concentration was also published.

Amendments to subsection (c) clarifies that a published lifetime HAL concentration would not be used as the MSC for substances that are designated as likely to be carcinogenic if the lifetime HAL does not include an adjustment for cancer risk. For these cases the MSC will be calculated based on the equations in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values).

Amendments to subsection (g) include additional references related to the determination of solubility values.

§ 250.306. Ingestion numeric values

Due to new information about the toxicology of trichloroethylene (TCE), values for oral cancer slope factors for TCE were added and the formula for calculating the MSC for TCE was amended.

Due to new information published by the EPA in Exposure Factors Handbook 2011 Edition, EPA/600/R-090/052F, the average body weight and the associated ingestion factors were amended.

§ 250.307. Inhalation numeric values

Due to new information relating to the toxicology of TCE, values for inhalation unit risk for TCE and the formula for calculating the MSC for TCE were amended.

Appendix A, Tables 1—6

Amendments to the Medium-Specific Concentrations tables in Appendix A were made for certain regulated substances. Information was updated on the Physical and Toxicological Properties tables and the Threshold of Regulation Compounds table.

F. *Summary of Changes to the Proposed Rulemaking*

§ 250.5. Public notice by applicant

The proposed amendments to this section stated that specific documented proof of the mailing of municipal notices and arranging for the publication of newspaper notices is required at the same time the NIR is submitted to the Department. This would have required remediators to wait for public notice documents in advance of submitting reports and NIRs to the Department. The act requires these notices to be made at the same time the NIR or report is submitted to the Department. See section 303(h) of the act and sections 302(e), 304(n) and 305(c) of the act (35 P.S. §§ 6026.302(e), 6026.304(n) and 6026.305(c)). In this final-form rulemaking, this section was revised to allow remediators to provide reasonable proof of publication by submitting the proposed text of the newspaper notice and the anticipated publication date at the same time that the NIR is submitted. This will allow the Department to assure that the municipality and the public are notified of the NIR, plan or report in a timely fashion, in accordance with the act.

§ 250.304. MSCs for groundwater

Section 250.304(g) provides references for sources of solubility limits used in calculating the groundwater MSCs. Paragraph (18) with the reference to Riddick, J.A., et al. was added in this final-form rulemaking to the list of sources.

§ 250.307. Inhalation numeric values

An amendment to an equation in this section corrects a typographical error that occurred between approval and publication of the final-form rulemaking published at 41 Pa.B. 230 (January 8, 2011).

Appendix A, Tables 1—6

Updates to toxicity values published after the proposed rulemaking caused existing MSCs for certain regulated substances to change. In addition, triethylene glycol was added based on new data the EPA published in the Provisional Peer-Reviewed Toxicity Values (PPRTV).

G. *Summary of Comments and Responses on the Proposed Rulemaking*

Notice of proposed rulemaking was published at 44 Pa.B. 2980 (May 17, 2014). The comment period opened on May 17, 2014, and closed on June 17, 2014. The Board received comments from two commentators in addition to comments from the Independent Regulatory Review Commission (IRRC).

A commentator noted that the residential soil MSC for vanadium is proposed to be decreased by 100 times from 1,500 mg/kg to 15 mg/kg. Furthermore, the commentator asserted that vanadium background concentrations in this Commonwealth range from a minimum of 15 mg/kg to a maximum of 150 mg/kg with an average of 80 mg/kg (Dragun, J. and Chekiri, K. (2005). *Element in North America Soils*. Amherst, MA: Amherst Scientific Publishers; and Boerngen, J.G and Shacklette, H.T. (1981). "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States." Open File Report 81-197. United States Geological Survey). Therefore, the commentator felt it would be more practical to set the MSC at the maximum background concentration of 150 mg/kg. A similar argument was made by the commentator regarding arsenic, which has background concentrations ranges from 3.8 mg/kg to 31 mg/kg. IRRC requested an explanation of the scientific data relied upon for lowering the MSCs for vanadium and arsenic and to explain how the new standards are necessary to protect the public health.

The Department did not propose alteration of the current MSCs for arsenic. The PPRTV oral reference dose (RfD_o) of 0.00007 mg/kg-day published by the EPA (Provisional Peer-Reviewed Toxicity Values for Vanadium and Its Soluble Inorganic Compounds Other than Vanadium Pentoxide, EPA, 2009) is the basis for the change in the vanadium MSCs. The prior MSCs for vanadium were based on a RfD_o published by the EPA in the Health Effects Assessment Summary Tables (HEAST). This PPRTV RfD_o is based on a peer-reviewed toxicity analysis that undergoes greater rigor than the RfD_o published in HEAST. The Board and the CSSAB assign greater weight to a PPRTV RfD_o than a HEAST RfD_o consistent with § 250.605(a) (relating to sources of toxicity information). Therefore, this new value is the appropriate human health level for vanadium under the act.

The act and the regulations promulgated thereunder require the calculation of Statewide health standard MSCs based on human health toxicity values only and not on background soil levels. However, the act does recognize that human health toxicity values for any naturally occurring regulated substance may result in standards that are numerically less than the background levels at specific sites in this Commonwealth. In this case, section 303(d) of the act states that persons are not required to remediate below the background standard. Therefore, persons may use the background standard under the act and the regulations promulgated thereunder.

A commentator also noted that neither the CSSAB nor the STAC support the existing groundwater and soil-to-groundwater MSCs for MTBE which the Department did not propose to amend in this rulemaking. The commentator concurred with the CSSAB and the STAC assessment that the MTBE standard does not use specific health-based standards. The commentator also supported the recommendations submitted by the two Department advisory committees and recommended that the proposed rulemaking be revised to reflect an altered MTBE standard. IRRC requested that the advisory committees' concerns regarding the MSCs for MTBE be addressed in the preamble and the Regulatory Analysis Form of the final-form rulemaking. IRRC also requested an explana-

tion of how the MTBE MSCs meet the criteria established in the act and how the MTBE MSCs adequately protect public health, safety and welfare.

The Department did not propose alteration of the current MTBE groundwater MSC in this final-form rulemaking. Therefore, comments regarding the groundwater MSC are outside the scope of this final-form rulemaking. The MTBE groundwater MSC appears in this final-form rulemaking only because the entire table of standards has been reproduced and set forth in its entirety for clarity. Section 301(c) of the act (35 P.S. § 6026.301(c)) requires Federally or State promulgated groundwater maximum contaminant level (MCL) and HALs to be the groundwater MSC. Currently six regulated substances have groundwater MSCs that are Federally promulgated MCLs which are solely based on secondary effects (aesthetic thresholds, for example, taste and odor). Since the act requires the use of MCLs and HALs when available, the act therefore allows for groundwater MSCs to be based on drinking water standards that are not health-based, but are aesthetic-based to protect public health and welfare. The EPA may include taste and odor considerations as well as health-based calculations in its promulgation of MCLs. See section 1401(2) of the Federal Safe Drinking Water Act (42 U.S.C.A. § 300f(2)).

In Chapter 250 as initially adopted at 27 Pa.B. 4181 (August 16, 1997), the Board promulgated a groundwater MSC for MTBE of 20 µg/L based on a draft lifetime HAL published by the EPA at the time. In subsequent publications of the Federal drinking water standards, the EPA listed MTBE under a separate table, titled Drinking Water Advisories, with an advisory level of 20 µg/L. The EPA concluded that despite limited health-based information, the drinking water advisory is consistent with human health protection goals. The Department suggests that decision was a sound decision to prevent water from having an odor after a cleanup is completed and to protect the public health and welfare. The Board decided not to propose a change in the MSC for MTBE because the drinking water advisory level does not reflect a change in the degree of protectiveness from the original draft HAL. The EPA continues to indicate that it is further evaluating MTBE for an MCL determination. The Department will continue to monitor EPA's progress and communications related to this MCL determination.

H. *Benefits, Costs and Compliance*

Benefits

The Department updates the Statewide health standard MSC values on a regular basis to assure that environmental response actions at contaminated sites are remediated using current EPA guidance and toxicological information. This will ensure the protection of public health and the environment from exposure to regulated substances when it has been determined that lower concentrations of regulated substances are required to meet the standards established by the act. This will also avoid unnecessary expense for remediators when remediating contaminated property for redevelopment when it has been determined that higher concentrations of regulated substances are protective and meet the standards established by the act.

Compliance costs

These technical amendments to Chapter 250 will affect owners, operators and purchasers of properties and facilities who volunteer or are required to perform remediation of releases and of contaminated sites. These technical amendments are not expected to add any significant costs to the cleanup of releases or contaminated sites under the Land Recycling Program. Some cleanup standard concentration values will be lower and some will be higher. The net overall cost should be negligible.

Compliance assistance plan

The Land Recycling Program will disseminate information concerning these updates using the Department's web site and e-mail to environmental consultants involved in the Land Recycling Program.

Paperwork requirements

No forms or reports are required beyond those established by the act.

I. *Pollution Prevention*

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance requirements.

During remediation of a contaminated site, potential sources of pollution are often removed to attain the standards in the act, thus eliminating or minimizing the potential for continued migration.

J. *Sunset Review*

Chapter 250 will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfills the goals for which they were intended.

K. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on April 28, 2014, the Department submitted a copy of the notice of proposed rulemaking, published at 44 Pa.B. 2980, to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, the Department shall submit to IRRC and the House and Senate Committees copies of comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P.S. § 745.5a(j.2)), on June 29, 2016, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on June 30, 2016, and approved the final-form rulemaking.

L. *Findings*

The Board finds that:

(1) Public notice of the proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) These regulations do not enlarge the purpose of the proposed rulemaking published at 44 Pa.B. 2980.

(4) These regulations are necessary and appropriate for the administration and enforcement of the acts identified in Section C of this preamble.

M. *Order*

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 250, are amended by amending §§ 250.5, 250.7, 250.301, 250.304, 250.306 and 250.307 and Appendix A, Tables 1—6, with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy Committees as required under the Regulatory Review Act (71 P.S. §§ 745.1—745.14).

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately.

PATRICK McDONNELL,
Acting Chairperson

(*Editor's Note*: See 46 Pa.B. 3894 (July 16, 2016) for IRRC's approval order.)

Fiscal Note: Fiscal Note 7-486 remains valid for the final adoption of the subject regulations.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VI. GENERAL HEALTH AND SAFETY

CHAPTER 250. ADMINISTRATION OF LAND RECYCLING PROGRAM

Subchapter A. GENERAL PROVISIONS

§ 250.5. Public notice by applicant.

(a) Public notice under the background, Statewide health or site-specific standard and under a special industrial area cleanup shall be initiated by the applicant through an NIR. For remediations proposing the use of a site-specific standard or, for remediations under an SIA agreement, the public and the municipality where the site is located shall be provided a 30-day period, in the NIR, in which the municipality may request to be involved in the development of the remediation and reuse plans for the site.

(b) The remedial investigation report, the risk assessment report and the cleanup plan, prepared under a site-specific remediation, may not be submitted to the Department until after the initial 30-day public and municipal comment period following the submission of the NIR has expired.

(c) The baseline environmental report, prepared under an SIA remediation, shall be submitted after the initial 30-day public and municipal comment period has expired.

(d) For areas not covered entirely by a nonuse aquifer areawide certification granted under § 250.303(f) (relating to aquifer determination; current use and currently planned use of aquifer groundwater), at the same time a request for a nonuse aquifer designation under the Statewide health standard is made to the Department, the remediator shall send notice to every municipality and community water supplier servicing the area requested for designation as nonuse under § 250.303(b). The notice must include a copy of the request for determination of nonuse aquifer submitted to the Department.

(e) Upon receipt of notice of a request for a nonuse aquifer designation, the municipality and community water supplier shall have 45 days to indicate to the Department and the remediator any information relevant to the requirements of § 250.303.

(f) Reasonable proof of the mailing of the municipal notices and arranging for the publication of newspaper notices, required under sections 302(e), 303(h), 304(n) and 305(c) of the act (35 P.S. §§ 6026.302(e), 6026.303(h), 6026.304(n) and 6026.305(c)), shall be submitted at the same time the NIR, plan or report is submitted to the Department. Examples of reasonable proof include:

(1) A copy of the letter to the municipality with a United States Postal Service Certified Mail Receipt, PS Form No. 3800.

(2) A copy of the proposed text of the newspaper notice and the anticipated publication date.

§ 250.7. Fees.

(a) Resubmission of a cleanup plan, remedial investigation, risk assessment or final report will require payment of the appropriate fee identified in the act for each resubmission.

(b) The Department will disapprove a plan or report that is submitted without the appropriate fee.

(c) The Department may waive the fee for resubmission of a plan or report if the resubmission is related to correcting minor administrative or technical deficiencies. The fee waiver is limited to the following:

(1) One time for each plan or report to correct administrative deficiencies if the corrections are made within 15 days of notice of the deficiencies by the Department.

(2) One time for each plan or report to correct technical deficiencies if the corrections are made within 60 days of notice of the deficiencies by the Department.

Subchapter C. STATEWIDE HEALTH STANDARDS

§ 250.301. Scope.

(a) This subchapter sets forth generic Statewide health standards as one of three remediation standards that a person may select. The Statewide health standards are concentrations of regulated substances associated with a specific environmental medium, and are designated as the MSCs. The values used to determine the MSCs are contained in Appendix A, Tables 1—4 and 6 and are the concentrations of regulated substances that shall be met to demonstrate attainment of a Statewide health standard. Appendix A, Table 5 presents the toxicological and physical parameters used to calculate the MSCs in Appendix A, Tables 1—4.

(b) This subchapter sets forth generic Statewide health standards for regulated substances determined by the

EPA to be mutagens. Appendix A, 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*
Acrylamide	79-06-1
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
Chromium (VI)	18540-29-9
Chrysene	218-01-9
Dibenzo[a,h]anthracene	53-70-3
Dibromo-3-chloropropane, 1,2-	96-12-8
Dichloromethane	75-09-2
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
Trichloroethylene (TCE)	79-01-6
Trichloropropane, 1,2,3-	96-18-4
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.

(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.

§ 250.304. MSCs for groundwater.

(a) A person shall implement a remedy under the Statewide health standard that is protective of human health and the environment.

(b) The MSCs for regulated substances in groundwater are presented in Appendix A, Tables 1 and 2. The methodology used by the Department for calculating MSCs in groundwater is detailed in subsections (c)—(f).

(c) The MSCs for regulated substances contained in groundwater in aquifers used or currently planned to be used for drinking water or for agricultural purposes are the MCLs as established by the Department or the EPA in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements). For regulated substances where no MCL has been established, the MSCs are the Lifetime Health Advisory Levels (HAL) set forth in Drinking Water Standards and Health Advisories (DWSHA), EPA Office of Water Publication No. EPA 822-S-12-001 (April 2012 or as revised), except for substances designated in the DWSHA with cancer descriptor (L) "Likely to be carcinogenic to humans" or (L/N) "Likely to be carcinogenic above a specific dose but not likely to be carcinogenic below that dose because a key event in tumor formation does not occur below that dose." New 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.

(1) For regulated substances where neither an MCL nor a lifetime HAL has been established and for substances designated in the DWSHA with cancer descriptor (L) or (L/N), the MSCs are the lowest concentration calculated using the appropriate residential and nonresidential exposure assumptions and the equations in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values).

(2) If the Lifetime HAL for a substance designated in the DWSHA with cancer descriptor (L) or (L/N) is less than the MSC calculated under paragraph (1), then the Lifetime HAL shall be the MSC.

(d) For regulated substances contained in aquifers not used or currently planned to be used, the MSCs in Appendix A, Tables 1 and 2 are calculated by the following:

(1) For volatile organic regulated substances with an attenuation factor of less than 20, as calculated by the methodology in paragraph (7), ten times the appropriate residential or nonresidential MSC for groundwater in aquifers used or currently planned to be used containing less than 2,500 mg/l total dissolved solids.

(2) For volatile organic regulated substances with an attenuation factor of greater than or equal to 20, as calculated by the methodology in paragraph (7), 100 times the appropriate residential or nonresidential MSC for groundwater in aquifers used or currently planned to be used containing less than 2,500 mg/l total dissolved solids.

(3) For semivolatile organic and inorganic regulated substances, regardless of the attenuation factor, 1,000 times the appropriate residential or nonresidential MSC for groundwater in aquifers used or currently planned to be used containing less than 2,500 mg/l total dissolved solids.

(4) For benzene, 100 times the appropriate residential or nonresidential MSC for groundwater in aquifers used or currently planned to be used containing less than 2,500 mg/l total dissolved solids.

(5) For regulated substances with no calculated attenuation factor because of a lack of data in Howard, P. H., R. S. Boethling, W. F. Jarais, W. M. Meylan and E. M. Michalenko. 1991. *Handbook of Environmental Degradation Rates*. Lewis Publishers, Inc., Chelsea, MI, the appropriate residential or nonresidential MSC for groundwater in aquifers used or currently planned to be used containing less than 2,500 mg/l total dissolved solids.

(6) For minimum threshold MSCs, 5 micrograms per liter in groundwater shall be used.

(7) The attenuation factor (AF) for an organic regulated substance shall be calculated according to the following formula:

$$AF = K \times KOC$$

Where:

$$K = \text{degradation coefficient} = \frac{0.693}{T_{1/2}}$$

$T_{1/2}$—half-life of organic regulated substance in groundwater as reported in Howard, P. H., R. S. Boethling, W. F. Jarais, W. M. Meylan and E. M. Michalenko, 1991. *Handbook of Environmental Degradation Rates*. Lewis Publishers, Inc., Chelsea, MI.

KOC—organic carbon partitioning coefficient (see Appendix A, Table 5).

(e) If the groundwater in aquifers used or currently planned for use at the site has naturally occurring background total dissolved solids concentrations greater than 2,500 milligrams per liter, the Statewide health standard for a regulated substance dissolved in the groundwater may be adjusted by multiplying the MSC for groundwater in aquifers by 100. The adjusted Statewide health standard shall then be used in calculating the soil to groundwater pathway numeric value as specified in § 250.308 (relating to soil to groundwater pathway numeric values).

(f) In addition to the requirements in this section, the MSCs are further limited by solubility as identified in Appendix A, Table 5. The solubility limits are derived from the references in subsection (g), which are keyed to the numbers in Appendix A, Table 5. The following procedure was used to determine the appropriate solubility value for each regulated substance: where multiple sources are cited in Appendix A, Table 5, the value for the solubility limit is the median of the values in the indicated references.

(1) Using the hierarchy established in subsection (g), the first two references were consulted. If the solubility values agreed within 5%, the selected value is the lower of the two values.

(2) If the values in step (1) did not agree within 5%, the next references in order were consulted until two values that did agree within 5% were found. The selected value is then the median of all the values consulted.

(3) If none of the values in all of the references in subsection (g) agreed within 5%, the selected value is the median of all values in all references.

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

(1) Lide, D. R., ed. 1996. *CRC Handbook of Chemistry and Physics*, 77th Edition. CRC Press.

(2) Budavari, S., ed. 1996. *The Merck Index*, 12th Ed. Merck and Co.

(3) Perry, R. H., et al. 1997. *Perry's Chemical Engineer's Handbook*, 7th ed. McGraw-Hill, New York.

(4) Howard, P. H. 1991. *Handbook of Environmental Fate and Exposure Data for Organic Chemicals. Vol. III Pesticides*, Lewis Publishers.

(5) Verschueren, K. 1977, *Handbook of Environmental Data on Organic Chemicals*, Van Nostrand Reinhold.

(6) MacKay, D., et al. 1997, *Illustrated Handbook of Physical-Chemical Properties and Environmental Fate for Organic Chemicals*, 5 Volumes. Lewis Publishers, New York.

(7) Montgomery, J. H. 1991, *Groundwater Chemicals Desk Reference*, Vol. II. Lewis Publishers and Montgomery, J. H., and L. M. Welkom. 1990, *Groundwater Chemicals Desk Reference Vol I*, Louis Publishers.

(8) Milne, G.W.A., ed. 1995, *CRC Handbook of Pesticides*, CRC Press, Inc.

(9) National Library of Medicine (Grateful Med), Hazardous Substances Databank.

(10) EPA.1994, *Superfund Chemical Data Matrix. Office of Solid Waste and Emergency Response*, EPA 540-R-94-009.

(11) Mabey, et al. 1982, *Aquatic Fate Process Data for Organic Priority Pollutants*, SRI. EPA Contract Nos. 68-01-3867, 68-03-2981.

(12) Yalkowsky, S.H. and R.M. Dannenfelser. 1992. *Aquasol Database of Aqueous Solubility.* Version 5. College of Pharmacy, University of Arizona—Tucson, AZ. PC Version.

(13) Estimate from Log Kow.

(14) Bennett, S.R., J.M. Bane, P.J. Benford, and R.L. Pyatt. 1984. *Environmental Hazards of Chemical Agent Simulants.* CRDC-TR-84055, Aberdeen Proving Ground, Md.

(15) Munro, N.B. et al. 1999. *The Sources, Fate, and Toxicity of Chemical Warfare Agent Degradation Products.* Environ. Health Perspect. 107(12): 933-4.

(16) Monteil-Rivera, F., C. Groom, and J. Hawari. 2003. *Sorption and Degradation of Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine in Soil*. Environ. Sci. Technol. 37:3878—3884.

(17) Seidell, A.1941. *Solubilities of Organic Compounds.* New York, NY. D. Van Nostrand Co. Inc.

(18) Riddick, J. A., et al. 1986. *Organic Solvents; Physical Properties & Methods of Purification. Techniques of Chemistry.* 11th Edition. New York, NY: Wiley-Interscience.

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§ 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:

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

(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 equations:

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

$$MSC = \frac{TR \times AT_c \times 365 \text{ days/year}}{CSF_o \times Abs \times EF \times IFadj \times CF}$$

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

$$MSC = \frac{TR \times AT_c \times 365 \text{ days/year}}{CSF_o \times Abs \times EF \times AIFadj \times CF}$$

(3) For vinyl chloride:

$$MSC = \frac{TR}{[CSF_o \times Abs \times EF \times IFadj \times CF / (AT_c \times 365 \text{ days/year})] + (CSF_o \times Abs \times IR_c \times CF/BW_c)}$$

(4) For trichloroethylene:

$$MSC = \frac{TR \times AT_c \times 365 \text{ days/yr}}{(CSFo_k \times AIFadj + CSFo_l \times IFadj) \times Abs \times EF \times CF}$$

(c) For a regulated substance that has both an oral reference dose and an oral cancer slope factor, the ingestion numeric value is the lower of the two numbers as calculated by the equations in subsections (a) and (b).

(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)		N/A	
	Soil	15		80
	Groundwater	80		80
AT_{nc}	Averaging Time for systemic toxicants (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
Abs	Absorption (unitless)[3]	1	1	1
EF	Exposure Frequency (d/yr)			
	Soil	250	250	180
	Groundwater	350	350	250
ED	Exposure Duration (yr)			
	Soil	6	N/A	25
	Groundwater	30	N/A	25
IngR	Ingestion Rate			
	Soil (mg/day)	100	N/A	50
	GW (L/day)	2	N/A	1
CF	Conversion Factor			
	Soil (kg/mg)	1×10^{-6}	1×10^{-6}	1×10^{-6}
	GW (unitless)	1	1	1
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
CSF_o	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	N/A	Chemical-specific	Chemical-specific
AT_c	Averaging Time for carcinogens (yr)	N/A	70	70
IFadj[4]	Ingestion Factor	N/A		
	Soil (mg-yr/kg-day)		55	15.6
	GW (L-yr/kg day)		1	0.3
AIFadj[5]	Combined Age-Dependent Adjustment Factor and Ingestion Factor	N/A		N/A
	Soil (mg-yr/kg-day)		241	
	GW (L-yr/kg-day)		3.23	
$CSFo_k$	TCE oral cancer slope factor for kidney cancer $(mg/kg/day)^{-1}$		9.3×10^{-3}	
$CSFo_l$	TCE oral cancer slope factor for non-Hodgkin lymphoma and liver cancer $(mg/kg/day)^{-1}$		3.7×10^{-2}	

Notes:

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

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

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

[4] The Ingestion Factor for the residential scenario is calculated using the equation $If_{adj} = ED_c \times IR_c/BW_c + ED_a \times IR_a/Bw_a$, where ED_c = 6 yr, IR_c = 100 mg/day for soils and 1 L/day for groundwater, BW_c = 15 kg, ED_a = 24 yr, IR_a = 50 mg/day for soils and 2 L/day for groundwater, and BW_a = 80 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 = 80 kg.

[5] The Combined Age-Dependent Adjustment Factor and Ingestion Factor (AIFadj) for the residential scenario is calculated using the equation AIFadj = $[(ADAF_{,2} \times ED_{,2}) + (ADAF_{2\text{-}6} \times ED_{2\text{-}6})] \times IRc / BWc + [(ADAF_{,6\text{-}16} \times ED_{,6\text{-}16}) + (ADAF_{,16} \times ED_{,6\text{-}16})] \times IRa / BWa$, 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 = 80 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.

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

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

Table 7 identifies each of the variables in this equation.

§ 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:

$$MSC = \frac{THQ \times RfCi \times AT_{nc} \times 365 \text{ days/yr} \times 24 \text{ hr/day} \times TF}{ET \times EF \times ED}$$

(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:

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

(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 and trichloroethylene, 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 or particulates:

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

(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 or particulates:

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

(5) For trichloroethylene, 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:

$$MSC = \frac{TR \times AT_c \times 365\ days/yr \times 24\ hr/day \times TF}{(IUR_k \times AED + IUR_l \times ED) \times ET \times EF \times CF}$$

(c) For a regulated substance which is both a systemic toxicant and a carcinogen, the inhalation numeric value is the lower of the two numbers as calculated by the equations in subsections (a) and (b).

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

Term		*Residential*		*Nonresidential (Onsite Worker)*
		Systemic[1]	*Carcinogens*[2]	
THQ	Target Hazard Quotient	1	N/A	1
RfCi	Inhal. Reference Concentration (mg/m^3)	Chemical-specific	N/A	Chemical-specific
AT_{nc}	Averaging Time for systemic toxicants (yr)	30	N/A	25
TF	Transport Factor $(mg/kg)/(mg/m^3)$			
	Volatilization[3]	Chemical-specific	Chemical-specific	Chemical-specific
	Particulate[4]	1×10^{10}	1×10^{10}	1×10^{10}
ET	Exposure Time (hr/day)	24	24	8
EF	Exposure Frequency[5] (d/yr)	250	250	180
ED	Exposure Duration (yr)	30	30	25
CF	Conversion Factor	N/A	1000 µg/mg	1000 µg/mg
TR	Target Risk	N/A	1×10^{-5}	1×10^{-5}
IUR	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	N/A	Chemical-specific	Chemical-specific
AT_c	Averaging Time for carcinogens (yr)	N/A	70	70
AED	Combined Age-Dependent Adjustment Factor and Exposure Duration (yr)[6]	N/A	76	N/A
IUR_k	TCE inhalation unit risk for kidney cancer $(ug/m^3)^{-1}$		1×10^{-6}	
IUR_l	TCE inhalation unit risk for both non-Hodgkin lymphoma and liver cancer $(ug/m^3)^{-1}$		3×10^{-6}	

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] 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.

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

* * * * *

(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 equations:

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

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

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

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

(3) For vinyl chloride:

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

(4) For trichloroethylene:

$$MSC = \frac{TR \times AT_c \times 365 \text{ days/yr} \times 24 \text{ hr/day}}{(IUR_k \times AED + IUR_l \times ED) \times ET \times EF \times TF \times CF}$$

(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 (Onsite Worker)*
		Systemic[1]	*Carcinogens*[2]	
THQ	Target Hazard Quotient	1	N/A	1
RfCi	Inhal. Reference Concentration (mg/m^3)	Chemical-specific	N/A	Chemical-specific
AT_{nc}	Averaging Time for systemic toxicants (yr)	30	N/A	25
ET	Exposure Time (hr/day)	24	24	8
EF	Exposure Frequency (d/yr)	350	350	250
ED	Exposure Duration (yr)	30	30	25
TF	Transfer Factor (L/m^3)[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}
IUR	Inhalation Unit Risk $(ug/m^3)^{-1}$	N/A	Chemical-specific	Chemical-specific
AT_c	Averaging Time for carcinogens (yr)	N/A	70	70
AED	Combined Age-Dependent adjustment Factor and Exposure Duration (yr)[4]	N/A	76	N/A
IUR_k	TCE inhalation unit risk for kidney cancer $(ug/m^3)^{-1}$		1×10^{-6}	
IUR_l	TCE inhalation unit risk for both non-Hodgkin lymphoma and liver cancer $(ug/m^3)^1$		3×10^{-6}	

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

[4] 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.

Appendix A

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
ACENAPHTHENE	83-32-9	2,500 G	3,800 S	3,800 S	3,800 S	3,800 S	3,800 S
ACENAPHTHYLENE	208-96-8	2,500 G	7,000 G	16,000 S	16,000 S	16,000 S	16,000 S
ACEPHATE	30560-19-1	84 G	390 G	8,400 G	39,000 G	84 G	390 G
ACETALDEHYDE	75-07-0	19 N	79 N	1,900 N	7,900 N	19 N	79 N
ACETONE	67-64-1	38,000 G	110,000 G	3,800,000 G	11,000,000 G	380,000 G	1,100,000 G
ACETONITRILE	75-05-8	130 N	530 N	13,000 N	53,000 N	1,300 N	5,300 N
ACETOPHENONE	98-86-2	4,200 G	12,000 G	420,000 G	1,200,000 G	4,200 G	12,000 G
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.19 G	0.89 G	19 G	89 G	190 G	890 G
ACROLEIN	107-02-8	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
ACRYLAMIDE	79-06-1	0.19 N	2.5 N	19 N	250 N	0.19 N	2.5 N
ACRYLIC ACID	79-10-7	2.1 N	8.8 N	210 N	880 N	210 N	880 N
ACRYLONITRILE	107-13-1	0.72 N	3.7 N	72 N	370 N	72 N	370 N
ALACHLOR	15972-60-8	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB	116-06-3	3 M	3 M	300 M	300 M	3,000 M	3,000 M
ALDICARB SULFONE	1646-88-4	2 M	2 M	200 M	200 M	2 M	2 M
ALDICARB SULFOXIDE	1646-87-3	4 M	4 M	400 M	400 M	4 M	4 M
ALDRIN	309-00-2	0.43 G	0.2 G	4.3 G	20 G	20 S	20 S
ALLYL ALCOHOL	107-18-6	0.21 N	0.88 N	21 N	88 N	21 N	88 N
AMETRYN	834-12-8	60 H	60 H	6,000 H	6,000 H	60 H	60 H
AMINOBIPHENYL, 4-	92-67-1	0.035 G	0.16 G	3.5 G	16 G	35 G	160 G
AMITROLE	61-82-5	0.78 G	3.6 G	78 G	360 G	780 G	3,600 G
AMMONIA	7664-41-7	30,000 H	30,000 H	3,000,000 H	3,000,000 H	30,000 H	30,000 H
AMMONIUM SULFAMATE	7773-06-0	2,000 H	2,000 H	200,000 H	200,000 H	2,000 H	2,000 H
ANILINE	62-53-3	2.1 N	8.8 N	210 N	880 N	2.1 N	8.8 N
ANTHRACENE	120-12-7	66 S	66 S	66 S	66 S	66 S	66 S
ATRAZINE	1912-24-9	3 M	3 M	300 M	300 M	3 M	3 M
AZINPHOS-METHYL (GUTHION)	86-50-0	130 G	350 G	13,000 G	32,000 S	130 G	350 G
BAYGON (PROPOXUR)	114-26-1	3 H	3 H	300 H	300 H	3,000 H	3,000 H
BENOMYL	17804-35-2	2,000 S	2,000 S	2,000 S	2,000 S	2,000 S	2,000 S
BENTAZON	25057-89-0	200 H	200 H	20,000 H	20,000 H	200 H	200 H
BENZENE	71-43-2	5 M	5 M	500 M	500 M	500 M	500 M
BENZIDINE	92-87-5	0.00098 G	0.015 G	0.098 G	1.5 G	0.98 G	15 G
BENZO[A]ANTHRACENE	56-55-3	0.32 G	4.9 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

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

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

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

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
BENZO[B]FLUORANTHENE	205-99-2	0.19 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	0.19 G	0.55 S	0.55 S	0.55 S	0.55 S	0.55 S
BENZOIC ACID	65-85-0	170,000 G	470,000 G	2,700,000 S	2,700,000 S	170,000 G	470,000 G
BENZOTRICHLORIDE	98-07-7	0.056 G	0.26 G	5.6 G	26 G	56 G	260 G
BENZYL ALCOHOL	100-51-6	4,200 G	12,000 G	420,000 G	1,200,000 G	4,200 G	12,000 G
BENZYL CHLORIDE	100-44-7	1 N	5.1 N	100 N	510 N	100 N	510 N
BETA PROPIOLACTONE	57-57-8	0.012 N	0.063 N	1.2 N	6.3 N	0.12 N	0.63 N
BHC, ALPHA-	319-84-6	0.12 G	0.54 G	12 G	54 G	120 G	540 G
BHC, BETA-	319-85-7	0.41 G	1.9 G	41 G	100 S	100 S	100 S
BHC, GAMMA (LINDANE)	58-89-9	0.2 M	0.2 M	20 M	20 M	200 M	200 M
BIPHENYL, 1,1-	92-52-4	91 G	430 G	7,200 S	7,200 S	7,200 S	7,200 S
BIS(2-CHLOROETHOXY)METHANE	111-91-1	130 G	350 G	13,000 G	35,000 G	130 G	350 G
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.15 N	0.76 N	15 N	76 N	15 N	76 N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	300 H	300 H	30,000 H	30,000 H	30,000 H	30,000 H
BIS(CHLOROMETHYL)ETHER	542-88-1	0.00079 N	0.004 N	0.079 N	0.4 N	0.079 N	0.4 N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	6 M	6 M	290 S	290 S	290 S	290 S
BISPHENOL A	80-05-7	2,100 G	5,800 G	120,000 S	120,000 S	120,000 S	120,000 S
BROMACIL	314-40-9	70 H	70 H	7,000 H	7,000 H	70 H	70 H
BROMOCHLOROMETHANE	74-97-5	90 H	90 H	9,000 H	9,000 H	90 H	90 H
BROMODICHLOROMETHANE (THM)	75-27-4	80 M	80 M	8,000 M	8,000 M	80 M	80 M
BROMOMETHANE	74-83-9	10 H	10 H	1,000 H	1,000 H	1,000 H	1,000 H
BROMOXYNIL	1689-84-5	830 G	2,300 G	83,000 G	130,000 S	830 G	2,300 G
BROMOXYNIL OCTANOATE	1689-99-2	80 S	80 S	80 S	80 S	80 S	80 S
BUTADIENE, 1,3-	106-99-0	0.21 G	1 G	21 G	100 G	21 G	100 G
BUTYL ALCOHOL, N-	71-36-3	4,200 G	12,000 G	420,000 G	1,200,000 G	42,000 G	120,000 G
BUTYLATE	2008-41-5	400 H	400 H	40,000 H	40,000 H	400 H	400 H
BUTYLBENZENE, N-	104-51-8	2,100 G	5,800 G	15,000 S	15,000 S	2,100 G	5,800 G
BUTYLBENZENE, SEC-	135-98-8	4,200 G	12,000 G	17,000 S	17,000 S	4,200 G	12,000 G
BUTYLBENZENE, TERT-	98-06-6	4,200 G	12,000 G	30,000 S	30,000 S	4,200 G	12,000 G
BUTYLBENZYL PHTHALATE	85-68-7	380 G	1,800 G	2,700 S	2,700 S	2,700 S	2,700 S
CAPTAN	133-06-2	320 G	500 S	500 S	500 S	500 S	500 S
CARBARYL	63-25-2	4,200 G	12,000 G	120,000 S	120,000 S	120,000 S	120,000 S
CARBAZOLE	86-74-8	37 G	170 G	1,200 S	1,200 S	37 S	170 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

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

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

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
CARBOFURAN	1563-66-2	40 M	40 M	4,000 M	4,000 M	40 M	40 M
CARBON DISULFIDE	75-15-0	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N
CARBON TETRACHLORIDE	56-23-5	5 M	5 M	500 M	500 M	50 M	50 M
CARBOXIN	5234-68-4	700 H	700 H	70,000 H	70,000 H	700 H	700 H
CHLORAMBEN	133-90-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORDANE	57-74-9	2 M	2 M	56 S	56 S	56 S	56 S
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	110,000 N	440,000 N	1,400,000 S	1,400,000 S	110,000 N	440,000 N
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	2.1 N	8.8 N	210 N	880 N	210 N	880 N
CHLOROACETALDEHYDE	107-20-0	2.4 G	11 G	240 G	1,100 G	2.4 G	11 G
CHLOROACETOPHENONE, 2-	532-27-4	1.3 G	3.5 G	130 G	350 G	1,300 G	3,500 G
CHLOROANILINE, P-	106-47-8	3.7 G	17 G	370 G	1,700 G	3.7 G	17 G
CHLOROBENZENE	108-90-7	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
CHLOROBENZILATE	510-15-6	6.6 G	31 G	660 G	3,100 G	6,600 G	13,000 S
CHLOROBUTANE, 1-	109-69-3	1,700 G	4,700 G	170,000 G	470,000 G	1,700 G	4,700 G
CHLORODIBROMOMETHANE (THM)	124-48-1	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
CHLORODIFLUOROMETHANE	75-45-6	110,000 N	440,000 N	2,900,000 S	2,900,000 S	110,000 N	440,000 N
CHLOROETHANE	75-00-3	250 G	1,200 G	25,000 G	120,000 G	25,000 G	120,000 G
CHLOROFORM (THM)	67-66-3	80 M	80 M	8,000 M	8,000 M	800 M	800 M
CHLORONAPHTHALENE, 2-	91-58-7	3,300 G	9,300 G	12,000 S	12,000 S	3,300 G	9,300 G
CHLORONITROBENZENE, P-	100-00-5	42 G	120 G	4,200 G	12,000 G	42 G	120 G
CHLOROPHENOL, 2-	95-57-8	40 H	40 H	4,000 H	4,000 H	40 H	40 H
CHLOROPRENE	126-99-8	0.16 N	0.83 N	16 N	83 N	16 N	83 N
CHLOROPROPANE, 2-	75-29-6	210 N	880 N	21,000 N	88,000 N	210 N	880 N
CHLOROTHALONIL	1897-45-6	240 G	600 S	600 S	600 S	240 G	600 S
CHLOROTOLUENE, O-	95-49-8	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLOROTOLUENE, P-	106-43-4	100 H	100 H	10,000 H	10,000 H	100 H	100 H
CHLORPYRIFOS	2921-88-2	2 H	2 H	200 H	200 H	2 H	2 H
CHLORSULFURON	64902-72-3	2,100 G	5,800 G	190,000 S	190,000 S	2,100 G	5,800 G
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	70 H	70 H	500 S	500 S	500 S	500 S
CHRYSENE	218-01-9	1.9 G	1.9 S	1.9 S	1.9 S	1.9 S	1.9 S
CRESOL(S)	1319-77-3	1,300 N	5,300 N	130,000 N	530,000 N	130,000 N	530,000 N
CRESOL, DINITRO-O-,4,6-	534-52-1	3.3 G	9.3 G	330 G	930 G	3,300 G	9,300 G
CRESOL, O- (METHYLPHENOL, 2-)	95-48-7	2,100 G	5,800 G	210,000 G	580,000 G	210,000 G	580,000 G
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	2,100 G	5,800 G	210,000 G	580,000 G	2,100,000 G	2,500,000 S

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		R	*NR*	*R*	*NR*	*R*	*NR*
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	210 G	580 G	21,000 G	58,000 G	210,000 G	580,000 G
CRESOL, P-CHLORO-M-	59-50-7	4,200 G	12,000 G	420,000 G	1,200,000 G	4,200 G	12,000 G
CROTONALDEHYDE	4170-30-3	0.38 G	1.8 G	38 G	180 G	38 G	180 G
CROTONALDEHYDE, TRANS-	123-73-9	0.38 G	1.8 G	38 G	180 G	38 G	180 G
CUMENE (ISOPROPYL BENZENE)	98-82-8	840 N	3,500 N	50,000 S	50,000 S	50,000 S	50,000 S
CYANAZINE	21725-46-2	1 H	1 H	100 H	100 H	1 H	1 H
CYCLOHEXANE	110-82-7	13,000 N	53,000 N	55,000 S	55,000 S	13,000 N	53,000 N
CYCLOHEXANONE	108-94-1	1,500 N	6,200 N	150,000 N	620,000 N	1,500 N	6,200 N
CYFLUTHRIN	68359-37-5	1 S	1 S	1 S	1 S	1 S	1 S
CYROMAZINE	66215-27-8	310 G	880 G	31,000 G	88,000 G	310 G	880 G
DDD, 4,4'-	72-54-8	3 G	14 G	160 S	160 S	160 S	160 S
DDE, 4,4'-	72-55-9	2.1 G	10 G	40 S	40 S	40 S	40 S
DDT, 4,4'-	50-29-3	2.1 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	12 G	56 G	1,200 G	5,600 G	12,000 G	40,000 S
DIAMINOTOLUENE, 2,4-	95-80-7	0.18 G	0.85 G	18 G	85 G	180 G	850 G
DIAZINON	333-41-5	1 H	1 H	100 H	100 H	1 H	1 H
DIBENZO[A,H]ANTHRACENE	53-70-3	0.055 G	0.6 S	0.6 S	0.6 S	0.6 S	0.6 S
DIBENZOFURAN	132-64-9	42 G	120 G	4,200 G	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	420 G	1,200 G	20,000 S	20,000 S	420 G	1,200 G
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.05 M	0.05 M	5 M	5 M	5 M	5 M
DIBROMOMETHANE	74-95-3	8.4 N	35 N	840 N	3,500 N	840 N	3,500 N
DIBUTYL PHTHALATE, N-	84-74-2	4,200 G	12,000 G	400,000 S	400,000 S	400,000 S	400,000 S
DICAMBA	1918-00-9	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
DICHLOROACETIC ACID (HAA)	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	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.012 N	0.06 N	1.2 N	6 N	0.012 N	0.06 N
DICHLOROBENZENE, 1,2-	95-50-1	600 M	600 M	60,000 M	60,000 M	60,000 M	60,000 M
DICHLOROBENZENE, 1,3-	541-73-1	600 H	600 H	60,000 H	60,000 H	60,000 H	60,000 H
DICHLOROBENZENE, P-	106-46-7	75 M	75 M	7,500 M	7,500 M	7,500 M	7,500 M
DICHLOROBENZIDINE, 3,3'-	91-94-1	1.6 G	7.6 G	160 G	760 G	1,600 G	3,100 S
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
DICHLOROETHANE, 1,1-	75-34-3	31 N	160 N	3,100 N	16,000 N	310 N	1,600 N

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DICHLOROETHANE, 1,2-	107-06-2	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROETHYLENE, 1,1-	75-35-4	7 M	7 M	700 M	700 M	70 M	70 M
DICHLOROETHYLENE, CIS-1,2-	156-59-2	70 M	70 M	7,000 M	7,000 M	700 M	700 M
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	100 M	100 M	10,000 M	10,000 M	1,000 M	1,000 M
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	5 M	5 M	500 M	500 M	500 M	500 M
DICHLOROPHENOL, 2,4-	120-83-2	20 H	20 H	2,000 H	2,000 H	20,000 H	20,000 H
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	70 M	70 M	7,000 M	7,000 M	70,000 M	70,000 M
DICHLOROPROPANE, 1,2-	78-87-5	5 M	5 M	500 M	500 M	50 M	50 M
DICHLOROPROPENE, 1,3-	542-75-6	7.3 G	34 G	730 G	3,400 G	730 G	3,400 G
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	200 M	200 M	20,000 M	20,000 M	20,000 M	20,000 M
DICHLORVOS	62-73-7	2.5 G	12 G	250 G	1,200 G	2.5 G	12 G
DICYCLOPENTADIENE	77-73-6	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
DIELDRIN	60-57-1	0.046 G	0.21 G	4.6 G	21 G	46 G	170 S
DIETHYL PHTHALATE	84-66-2	33,000 G	93,000 G	1,100,000 S	1,100,000 S	1,100,000 S	1,100,000 S
DIFLUBENZURON	35367-38-5	200 S	200 S	200 S	200 S	200 S	200 S
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	600 H	600 H	60,000 H	60,000 H	600 H	600 H
DIMETHOATE	60-51-5	8.3 G	23 G	830 G	2,300 G	8,300 G	23,000 G
DIMETHOXYBENZIDINE, 3,3-	119-90-4	0.46 G	2 G	46 G	210 G	460 G	2,100 G
DIMETHRIN	70-38-2	36 S	36 S	36 S	36 S	36 S	36 S
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	0.16 G	0.74 G	16 G	74 G	160 G	740 G
DIMETHYLANILINE, N,N-	121-69-7	83 G	230 G	8,300 G	23,000 G	8,300 G	23,000 G
DIMETHYLBENZIDINE, 3,3-	119-93-7	0.066 G	0.31 G	6.6 G	31 G	66 G	310 G
DIMETHYL METHYLPHOSPHONATE	756-79-6	100 H	100 H	10,000 H	10,000 H	100 H	100 H
DIMETHYLPHENOL, 2,4-	105-67-9	830 G	2,300 G	83,000 G	230,000 G	830,000 G	2,300,000 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	83 G	230 G	8,300 G	23,000 G	83,000 G	230,000 G
DINITROTOLUENE, 2,4-	121-14-2	2.4 G	11 G	240 G	1,100 G	2,400 G	11,000 G
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.49 G	2 G	49 G	230 G	490 G	2,300 G
DINOSEB	88-85-7	7 M	7 M	700 M	700 M	7,000 M	7,000 M
DIOXANE, 1,4-	123-91-1	6.4 N	32 N	640 N	3,200 N	64 N	320 N
DIPHENAMID	957-51-7	200 H	200 H	20,000 H	20,000 H	200 H	200 H
DIPHENYLAMINE	122-39-4	1,000 G	2,900 G	100,000 G	290,000 G	300,000 S	300,000 S
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.91 G	4.3 G	91 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

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DISULFOTON	298-04-4	0.7 H	0.7 H	70 H	70 H	700 H	700 H
DITHIANE, 1,4-	505-29-3	80 H	80 H	8,000 H	8,000 H	80 H	80 H
DIURON	330-54-1	83 G	230 G	8,300 G	23,000 G	83 G	230 G
ENDOSULFAN	115-29-7	250 G	480 S	480 S	480 S	480 S	480 S
ENDOSULFAN I (APLHA)	959-98-8	250 G	500 S	500 S	500 S	250 G	500 S
ENDOSULFAN II (BETA)	33213-65-9	250 G	450 S	450 S	450 S	250 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	2.1 N	8.8 N	210 N	880 N	210 N	880 N
ETHEPHON	16672-87-0	210 G	580 G	21,000 G	58,000 G	210 G	580 G
ETHION	563-12-2	21 G	58 G	850 S	850 S	21 G	58 G
ETHOXYETHANOL, 2- (EGEE)	110-80-5	420 N	1,800 N	42,000 N	180,000 N	42,000 N	180,000 N
ETHYL ACETATE	141-78-6	150 G	620 G	150,000 G	62,000 G	150,000 G	62,000 G
ETHYL ACRYLATE	140-88-5	15 G	70 N	1,500 G	7,000 N	1,500 G	7,000 N
ETHYL BENZENE	100-41-4	700 M	700 M	70,000 M	70,000 M	70,000 M	70,000 M
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	1,000 G	2,900 G	100,000 G	290,000 G	1,000 G	2,900 G
ETHYL ETHER	60-29-7	8,300 G	23,000 G	830,000 G	2,300,000 G	8,300 G	23,000 G
ETHYL METHACRYLATE	97-63-2	630 N	2,600 N	63,000 N	260,000 N	630 N	2,600 N
ETHYLENE CHLORHYDRIN	107-07-3	830 G	2,300 G	83,000 G	230,000 G	830 G	2,300 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	3.3 G	9.3 G	330 G	930 G	3,300 G	9,300 G
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	0.42 G	1 G	42 G	120 G	0.42 G	1.2 G
FENAMIPHOS	22224-92-6	0.7 H	0.7 H	70 H	70 H	0.7 H	0.7 H
FENVALERATE (PYDRIN)	51630-58-1	85 S	85 S	85 S	85 S	85 S	85 S
FLUOMETURON	2164-17-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
FLUORANTHENE	206-44-0	260 S	260 S	260 S	260 S	260 S	260 S
FLUORENE	86-73-7	1,700 G	1,900 S	1,900 S	1,900 S	1,900 S	1,900 S
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
FONOFOS	944-22-9	10 H	10 H	1,000 H	1,000 H	10 H	10 H
FORMALDEHYDE	50-00-0	1,000 H	1,000 H	100,000 H	100,000 H	100,000 H	100,000 H
FORMIC ACID	64-18-6	0.63 N	2.6 N	63 N	260 N	6.3 N	26 N
FOSETYL-AL	39148-24-8	130,000 G	350,000 G	13,000,000 G	35,000,000 G	130,000 G	350,000 G
FURAN	110-00-9	42 G	120 G	4,200 G	12,000 G	4,200 G	12,000 G

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FURFURAL	98-01-1	110 N	350 G	11,000 N	35,000 G	110 N	350 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	9.4 G	44 G	940 G	2,900 S	2,900 S	2,900 S
HEXACHLOROCYCLOPENTADIENE	77-47-4	50 M	50 M	1,800 S	1,800 S	1,800 S	1,800 S
HEXACHLOROETHANE	67-72-1	1 H	1 H	100 H	100 H	100 H	100 H
HEXANE	110-54-3	1,500 N	6,200 N	9,500 S	9,500 S	1,500 N	6,200 N
HEXAZINONE	51235-04-2	400 H	400 H	40,000 H	40,000 H	400 H	400 H
HEXYTHIAZOX (SAVEY)	78587-05-0	500 S	500 S	500 S	500 S	500 S	500 S
HMX	2691-41-0	400 H	400 H	5,000 S	5,000 S	400 H	400 H
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.01 N	0.051 N	1 N	5.1 N	0.1 N	0.51 N
HYDROQUINONE	123-31-9	12 G	57 G	1,200 G	5,700 G	12,000 G	57,000 G
INDENO[1,2,3-CD]PYRENE	193-39-5	0.19 G	2.8 G	19 G	62 S	62 S	62 S
IPRODIONE	36734-19-7	1,700 G	4,700 G	13,000 S	13,000 S	1,700 G	4,700 G
ISOBUTYL ALCOHOL	78-83-1	13,000 G	35,000 G	1,300,000 G	3,500,000 G	1,300,000 G	3,500,000 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	0.073 G	0.34 G	7.3 G	34 G	73 G	340 G
MALATHION	121-75-5	500 H	500 H	50,000 H	50,000 H	140,000 S	140,000 S
MALEIC HYDRAZIDE	123-33-1	4,000 H	4,000 H	400,000 H	400,000 H	4,000 H	4,000 H
MANEB	12427-38-2	210 G	580 G	21,000 G	23,000 S	210 G	580 G
MERPHOS OXIDE	78-48-8	1.3 G	3.5 G	130 G	350 G	1.3 G	3.5 G
METHACRYLONITRILE	126-98-7	4.2 G	12 G	420 G	1,200 G	4.2 G	12 G
METHAMIDOPHOS	10265-92-6	2.1 G	5.8 G	210 G	580 G	2.1 G	5.8 G
METHANOL	67-56-1	8,400 N	35,000 N	840,000 N	3,500,000 N	840,000 N	3,500,000 N
METHOMYL	16752-77-5	200 H	200 H	20,000 H	20,000 H	200 H	200 H
METHOXYCHLOR	72-43-5	40 M	40 M	45 S	45 S	45 S	45 S
METHOXYETHANOL, 2-	109-86-4	42 N	180 N	4,200 N	18,000 N	42 N	180 N
METHYL ACETATE	79-20-9	42,000 G	120,000 G	4,200,000 G	12,000,000 G	42,000 G	120,000 G
METHYL ACRYLATE	96-33-3	42 N	180 N	4,200 N	18,000 N	4,200 N	18,000 N
METHYL CHLORIDE	74-87-3	30 H	30 H	3,000 H	3,000 H	3,000 H	3,000 H
METHYL ETHYL KETONE	78-93-3	4,000 H	4,000 H	400,000 H	400,000 H	400,000 H	400,000 H

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		R	*NR*	*R*	*NR*	*R*	*NR*
METHYL HYDRAZINE	60-34-4	0.042 N	0.18 N	4.2 N	18 N	0.42 N	1.8 N
METHYL ISOBUTYL KETONE	108-10-1	3,300 G	9,300 G	330,000 G	930,000 G	330,000 G	930,000 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	591-78-6	63 N	260 N	6,300 N	26,000 N	63 N	260 N
METHYL METHACRYLATE	80-62-6	1,500 N	6,200 N	150,000 N	620,000 N	150,000 N	620,000 N
METHYL METHANESULFONATE	66-27-3	7.4 G	34 G	740 G	3,400 G	7.4 G	34 G
METHYL PARATHION	298-00-0	1 H	1 H	100 H	100 H	1,000 H	1,000 H
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	84 N	350 N	8,400 N	35,000 N	84 N	350 N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	20	20	2,000	2,000	200	200
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	2.3 G	34 G	230 G	3,400 G	2.3 G	34 G
METHYLNAPHTHALENE, 2-	91-57-6	170 G	470 G	17,000 G	25,000 S	170 G	470 G
METHYLSTYRENE, ALPHA	98-83-9	2,900 G	8,200 G	290,000 G	560,000 S	2,900 G	8,200 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 (HAA)	79-11-8	60 H	60 H	6,000 H	6,000 H	60 H	60 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	0.41 G	1.9 G	41 G	190 G	410 G	1,900 G
NAPHTHYLAMINE, 2-	91-59-8	0.41 G	1.9 G	41 G	190 G	410 G	1,900 G
NAPROPAMIDE	15299-99-7	4,200 G	12,000 G	70,000 S	70,000 S	4,200 G	12,000 G
NITROANILINE, O-	88-74-4	420 G	1,200 G	42,000 G	120,000 G	420 G	1,200 G
NITROANILINE, P-	100-01-6	37 G	170 G	3,700 G	17,000 G	37 G	170 G
NITROBENZENE	98-95-3	83 G	230 G	8,300 G	23,000 G	83,000 G	230,000 G
NITROGUANIDINE	556-88-7	700 H	700 H	70,000 H	70,000 H	700 H	700 H
NITROPHENOL, 2-	88-75-5	330 G	930 G	33,000 G	93,000 G	330,000 G	930,000 G
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	0.018 N	0.093 N	1.8 N	9.3 N	0.18 N	0.93 N
NITROSODIETHYLAMINE, N-	55-18-5	0.00045 N	0.0058 N	0.045 N	0.58 N	0.0045 N	0.058 N
NITROSODIMETHYLAMINE, N-	62-75-9	0.0014 N	0.018 N	0.14 N	1.8 N	0.014 N	0.18 N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	0.14 G	0.63 G	14 G	63 G	140 G	630 G
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.1 G	0.49 G	10 G	49 G	100 G	490 G
NITROSODIPHENYLAMINE, N-	86-30-6	150 G	690 G	15,000 G	35,000 S	35,000 S	35,000 S
NITROSO-N-ETHYLUREA, N-	759-73-9	0.0084 G	0.13 G	0.84 G	13 G	8.4 G	130 G
OCTYL PHTHALATE, DI-N-	117-84-0	420 G	1,200 G	3,000 S	3,000 S	3,000 S	3,000 S

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S = Aqueous solubility cap

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

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

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
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	250 G	700 G	20,000 S	20,000 S	250 G	700 G
PCB-1016 (AROCLOR)	12674-11-2	0.37 G	1.7 G	37 G	170 G	0.37 G	1.7 G
PCB-1221 (AROCLOR)	11104-28-2	0.37 G	1.7 G	37 G	170 G	0.37 G	1.7 G
PCB-1232 (AROCLOR)	11141-16-5	0.37 G	1.7 G	37 G	170 G	0.37 G	1.7 G
PCB-1242 (AROCLOR)	53469-21-9	0.37 G	1.7 G	37 G	100 S	0.37 G	1.7 G
PCB-1248 (AROCLOR)	12672-29-6	0.37 G	1.7 G	37 G	54 S	0.37 G	1.7 G
PCB-1254 (AROCLOR)	11097-69-1	0.37 G	1.7 G	37 G	57 S	0.37 G	1.7 G
PCB-1260 (AROCLOR)	11096-82-5	0.37 G	1.7 G	37 G	80 S	0.37 G	1.7 G
PEBULATE	1114-71-2	2,100 G	5,800 G	92,000 S	92,000 S	2,100 G	5,800 G
PENTACHLOROBENZENE	608-93-5	33 G	93 G	740 S	740 S	740 S	740 S
PENTACHLOROETHANE	76-01-7	8.1 G	38 G	810 G	3,800 G	8.1 G	38 G
PENTACHLORONITROBENZENE	82-68-8	2.8 G	13 G	280 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	330 G	1,500 G	33,000 G	150,000 G	330,000 G	760,000 S
PHENANTHRENE	85-01-8	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S	1,100 S
PHENOL	108-95-2	2,000 H	2,000 H	200,000 H	200,000 H	200,000 H	200,000 H
PHENYL MERCAPTAN	108-98-5	42 G	120 G	4,200 G	12,000 G	42 G	120 G
PHENYLENEDIAMINE, M-	108-45-2	250 G	700 G	25,000 G	70,000 G	250,000 G	700,000 G
PHENYLPHENOL, 2-	90-43-7	380 G	1,800 G	38,000 G	180,000 G	380,000 G	700,000 S
PHORATE	298-02-2	8.3 G	23 G	830 G	2,300 G	8.3 G	23 G
PHTHALIC ANHYDRIDE	85-44-9	83,000 G	230,000 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	400 H	400 H	40,000 H	40,000 H	400 H	400 H
PRONAMIDE	23950-58-5	3,100 G	8,800 G	15,000 S	15,000 S	3,100 G	8,800 G
PROPANIL	709-98-8	210 G	580 G	21,000 G	58,000 G	210 G	580 G
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
PROPAZINE	139-40-2	10 H	10 H	1,000 H	1,000 H	10 H	10 H
PROPHAM	122-42-9	100 H	100 H	10,000 H	10,000 H	100 H	100 H
PROPYLBENZENE, N-	103-65-1	2,100 N	8,800 N	52,000 S	52,000 S	2,100 N	8,800 N
PROPYLENE OXIDE	75-56-9	3 G	14 G	300 G	1,400 G	3 G	14 G
PYRENE	129-00-0	130 S	130 S	130 S	130 S	130 S	130 S

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

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

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
PYRIDINE	110-86-1	42 G	120 G	4,200 G	12,000 G	420 G	1,200 G
QUINOLINE	91-22-5	0.24 G	1.1 G	24 G	110 G	240 G	1,100 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	83,000 G	230,000 G	8,300,000 G	23,000,000 G	83,000 G	230,000 G
RONNEL	299-84-3	2,100 G	5,800 G	40,000 S	40,000 S	2,100 G	5,800 G
SIMAZINE	122-34-9	4 M	4 M	400 M	400 M	4 M	4 M
STRYCHNINE	57-24-9	13 G	35 G	1,300 G	3,500 G	13,000 G	35,000 G
STYRENE	100-42-5	100 M	100 M	10,000 M	10,000 M	10,000 M	10,000 M
TEBUTHIURON	34014-18-1	500 H	500 H	50,000 H	50,000 H	500 H	500 H
TERBACIL	5902-51-2	90 H	90 H	9,000 H	9,000 H	90 H	90 H
TERBUFOS	13071-79-9	0.4 H	0.4 H	40 H	40 H	0.4 H	0.4 H
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	13 G	35 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	0.84 N	4.3 N	84 N	430 N	84 N	430 N
TETRACHLOROETHYLENE (PCE)	127-18-4	5 M	5 M	500 M	500 M	50 M	50 M
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	1,300 G	3,500 G	130,000 G	180,000 S	180,000 S	180,000 S
TETRAETHYL LEAD	78-00-2	0.0042 G	0.012 G	0.42 G	1 G	4.2 G	12 G
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	21 G	58 G	2,100 G	5,800 G	21 G	58 G
TETRAHYDROFURAN	109-99-9	26 N	130 N	2,600 N	13,000 N	26 N	130 N
THIOFANOX	39196-18-4	13 G	35 G	1,300 G	3,500 G	13 G	35 G
THIRAM	137-26-8	210 G	580 G	21,000 G	30,000 S	210 G	580 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	46 G	210 G	4,600 G	21,000 G	46 G	210 G
TOLUIDINE, O	95-53-4	46 G	210 G	4,600 G	21,000 G	46,000 G	210,000 G
TOLUIDINE, P-	106-49-0	24 G	110 G	2,400 G	11,000 G	24 G	110 G
TOXAPHENE	8001-35-2	3 M	3 M	300 M	300 M	3 M	3 M
TRIALLATE	2303-17-5	540 G	1,500 G	4,000 S	4,000 S	540 G	1,500 G
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	80 M	80 M	8,000 M	8,000 M	8,000 M	8,000 M
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	63,000 N	170,000 S	170,000 S	170,000 S	170,000 S	170,000 S
TRICHLOROACETIC ACID (HAA)	76-03-9	60 H	60 H	6,000 H	6,000 H	60 H	60 H
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

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NR = Non-Residential G = Ingestion
THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.
HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse Aquifers*	
		TDS ≤ 2500		*TDS > 2500*			
		R	*NR*	*R*	*NR*	*R*	*NR*
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	4,200 G	12,000 G	420,000 G	1,000,000 S	1,000,000 S	1,000,000 S
TRICHLOROPHENOL, 2,4,6-	88-06-2	42 G	120 G	4,200 G	12,000 G	42,000 G	120,000 G
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	210 G	580 G	21,000 G	58,000 G	210 G	580 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	0.63 N	2.6 N	63 N	260 N	0.63 N	2.6 N
TRIETHYLAMINE	121-44-8	15 N	62 N	1,500 N	6,200 N	15 N	62 N
TRIETHYLENE GLYCOL	112-27-6	83,000 G	230,000 G	8,300,000 G	23,000,000 G	83,000 G	230,000 G
TRIFLURALIN	1582-09-8	10 H	10 H	1,000 H	1,000 H	10 H	10 H
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	15 N	62 N	1,500 N	6,200 N	1,500 N	6,200 N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	420 G	1,200 G	42,000 G	49,000 S	420 G	1,200 G
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	420 N	1,800 N	42,000 N	180,000 N	420 N	1,800 N
VINYL BROMIDE (BROMOETHENE)	593-60-2	1.5 N	7.8 N	150 N	780 N	15 N	78 N
VINYL CHLORIDE	75-01-4	2 M	2 M	200 M	200 M	20 M	20 M
WARFARIN	81-81-2	13 G	35 G	1,300 G	3,500 G	13,000 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	2,100 G	5,800 G	10,000 S	10,000 S	2,100 G	5,800 G

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

Regulated Substance	*CASRN*	*Used Aquifers*				*Nonuse 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	10 M	10 M	1,000 M	1,000 M	10,000 M	10,000 M
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	6,000 H	6,000 H	600,000 H	600,000 H	6,000,000 H	6,000,000 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	13 G	35 G	1,300 G	3,500 G	13,000 G	35,000 G
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	83 G	230 G	8,300 G	23,000 G	83,000 G	230,000 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	15 H	15 H	1,500 H	1,500 H	15,000 H	15,000 H
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
STRONTIUM	7440-24-6	4,000 H	4,000 H	400,000 H	400,000 H	4,000,000 H	4,000,000 H
THALLIUM	7440-28-0	2 M	2 M	200 M	200 M	2,000 M	2,000 M
TIN	7440-31-5	25,000 G	70,000 G	2,500,000 G	7,000,000 G	25,000,000 G	70,000,000 G
VANADIUM	7440-62-2	2.9 G	8.2 G	290 G	820 G	2,900 G	8,200 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 µg/L (except asbestos)
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SMCL = Secondary Maximum Contaminant Level
G = Ingestion
N = Inhalation

R = Residential
NR = Nonresidential

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
COPPER	7440-50-8	1000	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

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H = Lifetime Health Advisory Level
SMCL = Secondary Maximum Contaminant Level
G = Ingestion
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R = Residential
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Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
A. Direct Contact Numeric Values

REGULATED SUBSTANCE	*CASRN*	*Residential 0-15 feet*		*Nonresidential*			
				Surface Soil 0-2 feet		*Subsurface Soil 2-15 feet*	
ACENAPHTHENE	83-32-9	13,000	G	190,000	C	190,000	C
ACENAPHTHYLENE	208-96-8	13,000	G	190,000	C	190,000	C
ACEPHATE	30560-19-1	880	G	10,000	G	190,000	C
ACETALDEHYDE	75-07-0	170	N	720	N	830	N
ACETONE	67-64-1	10,000	C	10,000	C	10,000	C
ACETONITRILE	75-05-8	1,100	N	4,800	N	5,500	N
ACETOPHENONE	98-86-2	10,000	C	10,000	C	10,000	C
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.9	G	24	G	190,000	C
ACROLEIN	107-02-8	0.38	N	1.6	N	1.8	N
ACRYLAMIDE	79-06-1	1.7	N	22	N	26	N
ACRYLIC ACID	79-10-7	19	N	79	N	91	N
ACRYLONITRILE	107-13-1	6.6	N	33	N	38	N
ALACHLOR	15972-60-8	330	G	1,600	G	190,000	C
ALDICARB	116-06-3	220	G	3,200	G	190,000	C
ALDICARB SULFONE	1646-88-4	220	G	3,200	G	190,000	C
ALDICARB SULFOXIDE	1646-87-3	220	G	3,200	G	190,000	C
ALDRIN	309-00-2	1.1	G	5.4	G	190,000	C
ALLYL ALCOHOL	107-18-6	1.9	N	8	N	9.1	N
AMETRYN	834-12-8	2,000	G	29,000	G	190,000	C
AMINOBIPHENYL, 4-	92-67-1	0.89	G	4.3	G	190,000	C
AMITROLE	61-82-5	20	G	97	G	190,000	C
AMMONIA	7664-41-7	1,900	N	8,000	N	9,100	N
AMMONIUM SULFAMATE	7773-06-0	44,000	G	190,000	C	190,000	C
ANILINE	62-53-3	19	N	79	N	91	N
ANTHRACENE	120-12-7	66,000	G	190,000	C	190,000	C
ATRAZINE	1912-24-9	81	G	400	G	190,000	C
AZINPHOS-METHYL (GUTHION)	86-50-0	660	G	9,600	G	190,000	C
BAYGON (PROPOXUR)	114-26-1	880	G	13,000	G	190,000	C
BENOMYL	17804-35-2	11,000	G	160,000	G	190,000	C
BENTAZON	25057-89-0	6,600	G	96,000	G	190,000	C
BENZENE	71-43-2	57	N	290	N	330	N
BENZIDINE	92-87-5	0.018	G	0.4	G	190,000	C
BENZO[A]ANTHRACENE	56-55-3	6	G	130	G	190,000	C
BENZO[A]PYRENE	50-32-8	0.58	G	12	G	190,000	C
BENZO[B]FLUORANTHENE	205-99-2	3.5	G	76	G	190,000	C
BENZO[GHI]PERYLENE	191-24-2	13,000	G	190,000	C	190,000	C
BENZO[K]FLUORANTHENE	207-08-9	4	G	76	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	7	G	10,000	C
BENZYL ALCOHOL	100-51-6	10,000	C	10,000	C	10,000	C
BENZYL CHLORIDE	100-44-7	9	N	45	N	52	N
BETA PROPIOLACTONE	57-57-8	0.11	N	0.56	N	0.64	N
BHC, ALPHA	319-84-6	3	G	14	G	190,000	C
BHC, BETA-	319-85-7	10	G	51	G	190,000	C
BHC, GAMMA (LINDANE)	58-89-9	17	G	83	G	190,000	C
BIPHENYL, 1,1-	92-52-4	2,300	G	11,000	G	190,000	C
BIS(2-CHLOROETHOXY)METHANE	111-91-1	660	G	9,600	G	10,000	C
BIS(2-CHLOROETHYL)ETHER	111-44-4	1.3	N	6.7	N	7.7	N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	44	N	220	N	250	N
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0072	N	0.036	N	0.041	N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1,300	G	6,500	G	10,000	C
BISPHENOL A	80-05-7	11,000	G	160,000	G	190,000	C
BROMACIL	314-40-9	22,000	G	190,000	C	190,000	C
BROMOCHLOROMETHANE	74-97-5	770	N	3,200	N	3,600	N
BROMODICHLOROMETHANE	75-27-4	12	N	60	N	69	N
BROMOMETHANE	74-83-9	96	N	400	N	460	N
BROMOXYNIL	1689-84-5	4,400	G	64,000	G	190,000	C
BROMOXYNIL OCTANOATE	1689-99-2	4,400	G	64,000	G	190,000	C
BUTADIENE, 1,3-	106-99-0	5.5	G	27	G	85	N

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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*	
BUTYL ALCOHOL, N-	71-36-3	10,000	C	10,000	C	10,000	C
BUTYLATE	2008-41-5	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, N-	104-51-8	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, SEC-	135-98-8	10,000	C	10,000	C	10,000	C
BUTYLBENZENE, TERT-	98-06-6	10,000	C	10,000	C	10,000	C
BUTYLBENZYL PHTHALATE	85-68-7	9,800	G	10,000	C	10,000	C
CAPTAN	133-06-2	8,100	G	40,000	G	190,000	C
CARBARYL	63-25-2	22,000	G	190,000	C	190,000	C
CARBAZOLE	86-74-8	930	G	4,600	G	190,000	C
CARBOFURAN	1563-66-2	1,100	G	16,000	G	190,000	C
CARBON DISULFIDE	75-15-0	10,000	C	10,000	C	10,000	C
CARBON TETRACHLORIDE	56-23-5	74	N	370	N	430	N
CARBOXIN	5234-68-4	22,000	G	190,000	C	190,000	C
CHLORAMBEN	133-90-4	3,300	G	48,000	G	190,000	C
CHLORDANE	57-74-9	53	G	260	G	190,000	C
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	10,000	C	10,000	C	10,000	C
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19	N	80	N	91	N
CHLOROACETALDEHYDE	107-20-0	62	G	300	G	10,000	C
CHLOROACETOPHENONE, 2-	532-27-4	190,000	C	190,000	C	190,000	C
CHLOROANILINE, P-	106-47-8	93	G	460	G	190,000	C
CHLOROBENZENE	108-90-7	960	N	4,000	N	4,600	N
CHLOROBENZILATE	510-15-6	170	G	830	G	190,000	C
CHLOROBUTANE, 1-	109-69-3	8,800	G	10,000	C	10,000	C
CHLORODIBROMOMETHANE	124-48-1	17	N	82	N	95	N
CHLORODIFLUOROMETHANE	75-45-6	10,000	C	10,000	C	10,000	C
CHLOROETHANE	75-00-3	6,400	G	10,000	C	10,000	C
CHLOROFORM	67-66-3	19	N	97	N	110	N
CHLORONAPHTHALENE, 2-	91-58-7	18,000	G	190,000	C	190,000	C
CHLORONITROBENZENE, P-	100-00-5	220	G	3,200	G	190,000	C
CHLOROPHENOL, 2-	95-57-8	1,100	G	10,000	C	10,000	C
CHLOROPRENE	126-99-8	1.5	N	7.4	N	8.5	N
CHLOROPROPANE, 2-	75-29-6	1,900	N	8,000	N	9,100	N
CHLOROTHALONIL	1897-45-6	3,300	G	29,000	G	190,000	C
CHLOROTOLUENE, O-	95-49-8	4,400	G	10,000	C	10,000	C
CHLOROTOLUENE, P-	106-43-4	4,400	C	10,000	C	10,000	C
CHLORPYRIFOS	2921-88-2	220	G	3,200	G	190,000	C
CHLORSULFURON	64902-72-3	11,000	G	160,000	G	190,000	C
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2,200	G	32,000	G	190,000	C
CHRYSENE	218-01-9	35	G	760	G	190,000	C
CRESOL(S)	1319-77-3	10,000	C	10,000	C	10,000	C
CRESOL, 4,6-DINITRO-O-	534-52-1	18	G	260	G	190,000	C
CRESOL, O- (2-METHYLPHENOL)	95-48-7	11,000	G	160,000	G	190,000	C
CRESOL, M- (3-METHYLPHENOL)	108-39-4	10,000	C	10,000	C	10,000	C
CRESOL, P- (4-METHYLPHENOL)	106-44-5	1,100	G	16,000	G	190,000	C
CRESOL, P-CHLORO-M-	59-50-7	22,000	G	190,000	G	190,000	C
CROTONALDEHYDE	4170-30-3	9.8	G	48	G	10,000	C
CROTONALDEHYDE, TRANS-	123-73-9	9.8	G	48	G	10,000	C
CUMENE (ISOPROPYL BENZENE)	98-82-8	7,700	N	10,000	C	10,000	C
CYANAZINE	21725-46-2	22	G	110	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	80,000	G	190,000	C
CYROMAZINE	66215-27-8	1,700	G	24,000	G	190,000	C
DDD, 4,4'-	72-54-8	78	G	380	G	190,000	C
DDE, 4,4'-	72-55-9	55	G	270	G	190,000	C
DDT, 4,4'-	50-29-3	55	G	270	G	190,000	C
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10,000	C	10,000	C	10,000	C
DIALLATE	2303-16-4	300	G	1,500	G	10,000	C
DIAMINOTOLUENE, 2,4-	95-80-7	4.7	G	23	G	190,000	C

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REGULATED SUBSTANCE	*CASRN*	*Residential 0-15 feet*		*Nonresidential*			
				Surface Soil 0-2 feet		*Subsurface Soil 2-15 feet*	
DIAZINON	333-41-5	150	G	2,200	G	10,000	C
DIBENZO[A,H]ANTHRACENE	53-70-3	1	G	22	G	190,000	C
DIBENZOFURAN	132-64-9	220	G	3,200	G	190,000	C
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.029	N	0.37	N	0.43	N
DIBROMOBENZENE, 1,4-	106-37-6	2,200	G	32,000	G	190,000	C
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.74	N	3.7	N	4.3	N
DIBROMOMETHANE	74-95-3	77	N	320	N	370	N
DIBUTYL PHTHALATE, N-	84-74-2	10,000	C	10,000	C	10,000	C
DICAMBA	1918-00-9	6,600	G	96,000	G	190,000	C
DICHLOROACETIC ACID	76-43-6	370	G	1,800	G	10,000	C
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.11	N	0.53	N	0.61	N
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6	0.1	N	0.52	N	0.6	N
DICHLOROBENZENE, 1,2-	95-50-1	3,800	N	10,000	C	10,000	C
DICHLOROBENZENE, 1,3-	541-73-1	10,000	C	10,000	C	10,000	C
DICHLOROBENZENE, P-	106-46-7	40	N	200	N	230	N
DICHLOROBENZIDINE, 3,3'-	91-94-1	41	G	200	G	190,000	C
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	1,900	N	8,000	N	9,100	N
DICHLOROETHANE, 1,1-	75-34-3	280	N	1,400	N	1,600	N
DICHLOROETHANE, 1,2-	107-06-2	17	N	86	N	98	N
DICHLOROETHYLENE, 1,1-	75-35-4	3,800	N	10,000	C	10,000	C
DICHLOROETHYLENE, CIS-1,2-	156-59-2	440	G	6,400	G	10,000	C
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1,100	N	4,800	N	5,500	N
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	1,300	G	10,000	C	10,000	C
DICHLOROPHENOL, 2,4-	120-83-2	660	G	9,600	G	190,000	C
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	2,200	G	32,000	G	190,000	C
DICHLOROPROPANE, 1,2-	78-87-5	45	N	220	N	260	N
DICHLOROPROPENE, 1,3-	542-75-6	110	N	560	N	640	N
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	6,600	G	10,000	C	10,000	C
DICHLORVOS	62-73-7	64	G	310	G	10,000	C
DICYCLOPENTADIENE	77-73-6	6	N	24	N	27	N
DIELDRIN	60-57-1	1.2	G	6	G	190,000	C
DIETHANOLAMINE	111-42-2	440	G	6,400	G	10,000	C
DIETHYL PHTHALATE	84-66-2	10,000	C	10,000	C	10,000	C
DIFLUBENZURON	35367-38-5	4,400	G	64,000	G	190,000	C
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	10,000	C	10,000	C	10,000	C
DIMETHOATE	60-51-5	44	G	640	G	190,000	C
DIMETHOXYBENZIDINE, 3,3-	119-90-4	1,300	G	6,500	G	190,000	C
DIMETHRIN	70-38-2	66,000	G	190,000	C	190,000	C
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	4	G	20	G	190,000	C
DIMETHYLANILINE, N,N-	121-69-7	440	G	6,400	G	10,000	C
DIMETHYLBENZIDINE, 3,3-	119-93-7	1.7	G	8.3	G	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	320	G	190,000	C
DINITROPHENOL, 2,4-	51-28-5	440	G	6,400	G	190,000	C
DINITROTOLUENE, 2,4-	121-14-2	60	G	290	G	190,000	C
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	12	G	61	G	190,000	C
DINOSEB	88-85-7	220	G	3,200	G	190,000	C
DIOXANE, 1,4-	123-91-1	58	N	290	N	330	N
DIPHENAMID	957-51-7	6,600	G	96,000	G	190,000	C
DIPHENYLAMINE	122-39-4	5,500	G	80,000	G	190,000	C
DIPHENYLHYDRAZINE, 1,2-	122-66-7	23	G	110	G	190,000	C
DIQUAT	85-00-7	480	G	7,000	G	190,000	C
DISULFOTON	298-04-4	8.8	G	130	G	10,000	C
DITHIANE, 1,4-	505-29-3	2,200	G	32,000	G	190,000	C
DIURON	330-54-1	440	G	6,400	G	190,000	C
ENDOSULFAN	115-29-7	1,300	G	19,000	G	190,000	C
ENDOSULFAN I (ALPHA)	959-98-8	1,300	G	19,000	G	190,000	C
ENDOSULFAN II (BETA)	33213-65-9	1,300	G	19,000	G	190,000	C

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				Surface Soil 0-2 feet		*Subsurface Soil 2-15 feet*	
ENDOSULFAN SULFATE	1031-07-8	1,300	G	19,000	G	190,000	C
ENDOTHALL	145-73-3	4,400	G	64,000	G	190,000	C
ENDRIN	72-20-8	66	G	960	G	190,000	C
EPICHLOROHYDRIN	106-89-8	19	N	79	N	91	N
ETHEPHON	16672-87-0	1,100	G	16,000	G	190,000	C
ETHION	563-12-2	110	G	1,600	G	10,000	C
ETHOXYETHANOL, 2- (EGEE)	110-80-5	3,900	N	10,000	C	10,000	C
ETHYL ACETATE	141-78-6	1,300	N	5,600	N	6,400	N
ETHYL ACRYLATE	140-88-5	150	N	640	N	730	N
ETHYL BENZENE	100-41-4	180	N	890	N	1,000	N
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	5,700	N	10,000	C	10,000	C
ETHYLENE CHLORHYDRIN	107-07-3	4,400	G	10,000	C	10,000	C
ETHYLENE GLYCOL	107-21-1	7,700	N	10,000	C	10,000	C
ETHYLENE THIOUREA (ETU)	96-45-7	18	G	260	G	190,000	C
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.2	G	32	G	190,000	C
FENAMIPHOS	22224-92-6	55	G	800	G	190,000	C
FENVALERATE (PYDRIN)	51630-58-1	5,500	G	10,000	C	10,000	C
FLUOMETURON	2164-17-2	2,900	G	42,000	G	190,000	C
FLUORANTHENE	206-44-0	8,800	G	130,000	G	190,000	C
FLUORENE	86-73-7	8,800	G	130,000	G	190,000	C
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	10,000	C	10,000	C	10,000	C
FONOFOS	944-22-9	440	G	6,400	G	10,000	C
FORMALDEHYDE	50-00-0	34	N	170	N	200	N
FORMIC ACID	64-18-6	6	N	24	N	27	N
FOSETYL-AL	39148-24-8	190,000	C	190,000	C	190,000	C
FURAN	110-00-9	220	G	3,200	G	10,000	C
FURFURAL	98-01-1	660	G	4,000	N	4,500	N
GLYPHOSATE	1071-83-6	22,000	G	190,000	C	190,000	C
HEPTACHLOR	76-44-8	4	G	20	G	190,000	C
HEPTACHLOR EPOXIDE	1024-57-3	2	G	10	G	190,000	C
HEXACHLOROBENZENE	118-74-1	12	G	57	G	190,000	C
HEXACHLOROBUTADIENE	87-68-3	220	G	1,200	G	10,000	C
HEXACHLOROCYCLOPENTADIENE	77-47-4	1,300	G	10,000	C	10,000	C
HEXACHLOROETHANE	67-72-1	44	N	220	N	260	N
HEXANE	110-54-3	10,000	C	10,000	C	10,000	C
HEXAZINONE	51235-04-2	7,300	G	110,000	G	190,000	C
HEXYTHIAZOX (SAVEY)	78587-05-0	5,500	G	80,000	G	190,000	C
HMX	2691-41-0	11,000	G	160,000	G	190,000	C
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.09	N	0.45	N	0.52	N
HYDROQUINONE	123-31-9	310	G	1,500	G	190,000	C
INDENO[1,2,3-CD]PYRENE	193-39-5	3.5	G	76	G	190,000	C
IPRODIONE	36734-19-7	8,800	G	130,000	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	1.9	G	9.1	G	190,000	C
MALATHION	121-75-5	4,400	G	10,000	C	10,000	C
MALEIC HYDRAZIDE	123-33-1	110,000	G	190,000	C	190,000	C
MANEB	12427-38-2	1,100	G	16,000	G	190,000	C
MERPHOS OXIDE	78-48-8	6.6	G	96	G	10,000	C
METHACRYLONITRILE	126-98-7	22	G	320	G	2,800	N
METHAMIDOPHOS	10265-92-6	11	G	160	G	190,000	C
METHANOL	67-56-1	10,000	C	10,000	C	10,000	C
METHOMYL	16752-77-5	5,500	G	80,000	G	190,000	C
METHOXYCHLOR	72-43-5	1,100	G	16,000	G	190,000	C
METHOXYETHANOL, 2-	109-86-4	380	N	1,600	N	1,800	N

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REGULATED SUBSTANCE	*CASRN*	*Residential 0-15 feet*		*Nonresidential*			
				Surface Soil 0-2 feet		*Subsurface Soil 2-15 feet*	
METHYL ACETATE	79-20-9	10,000	C	10,000	C	10,000	C
METHYL ACRYLATE	96-33-3	380	N	1,600	N	1,800	N
METHYL CHLORIDE	74-87-3	250	N	1,200	N	1,400	N
METHYL ETHYL KETONE	78-93-3	10,000	C	10,000	C	10,000	C
METHYL HYDRAZINE	60-34-4	0.38	N	1.6	N	1.8	N
METHYL ISOBUTYL KETONE	108-10-1	10,000	C	10,000	C	10,000	C
METHYL ISOCYANATE	624-83-9	19	N	79	N	91	N
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	570	N	2,400	N	2,800	N
METHYL METHACRYLATE	80-62-6	10,000	C	10,000	C	10,000	C
METHYL METHANESULFONATE	66-27-3	190	G	920	G	10,000	C
METHYL PARATHION	298-00-0	55	G	800	G	190,000	C
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	770	N	3,200	N	3,600	N
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	1,700	N	8,600	N	9,900	N
METHYLCHLOROPHENOXYACETIC ACD (MCPA)	94-74-6	110	G	1,600	C	190,000	C
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	42	G	910	G	190,000	C
METHYLNAPHTHALENE, 2-	91-57-6	880	G	13,000	G	190,000	C
METHYLSTYRENE, ALPHA	98-83-9	10,000	C	10,000	C	10,000	C
METOLACHLOR	51218-45-2	10,000	C	10,000	C	10,000	C
METRIBUZIN	21087-64-9	5,500	G	80,000	G	190,000	C
MONOCHLOROACETIC ACID	79-11-8	440	G	6,400	G	190,000	C
NAPHTHALENE	91-20-3	160	G	760	G	190,000	C
NAPHTHYLAMINE, 1-	134-32-7	10	G	51	G	190,000	C
NAPHTHYLAMINE, 2-	91-59-8	10	G	51	G	190,000	C
NAPROPAMIDE	15299-99-7	22,000	G	190,000	C	190,000	C
NITROANILINE, O-	88-74-4	2,200	G	32,000	G	190,000	C
NITROANILINE, P-	100-01-6	880	G	4,600	G	190,000	C
NITROBENZENE	98-95-3	440	G	6,400	G	10,000	C
NITROGUANIDINE	556-88-7	22,000	G	190,000	C	190,000	C
NITROPHENOL, 2-	88-75-5	1,800	G	26,000	G	190,000	C
NITROPHENOL, 4-	100-02-7	1,800	G	26,000	G	190,000	C
NITROPROPANE, 2-	79-46-9	0.16	N	0.82	N	0.94	N
NITROSODIETHYLAMINE, N-	55-18-5	0.0041	N	0.051	N	0.059	N
NITROSODIMETHYLAMINE, N-	62-75-9	0.012	N	0.16	N	0.18	N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	3.4	G	17	G	10,000	C
NITROSODI-N-PROPYLAMINE, N-	621-64-7	2.7	G	13	G	10,000	C
NITROSODIPHENYLAMINE, N-	86-30-6	3,800	G	19,000	G	190,000	C
NITROSO-N-ETHYLUREA, N-	759-73-9	0.16	G	3.4	G	190,000	C
OCTYL PHTHALATE, DI-N-	117-84-0	2,200	G	10,000	C	10,000	C
OXAMYL (VYDATE)	23135-22-0	5,500	G	80,000	G	190,000	C
PARAQUAT	1910-42-5	990	G	14,000	G	190,000	C
PARATHION	56-38-2	1,300	G	10,000	C	10,000	C
PCB-1016 (AROCLOR)	12674-11-2	9	G	46	G	10,000	C
PCB-1221 (AROCLOR)	11104-28-2	9	G	46	G	10,000	C
PCB-1232 (AROCLOR)	11141-16-5	9	G	46	G	10,000	C
PCB-1242 (AROCLOR)	53469-21-9	9	G	46	G	10,000	C
PCB-1248 (AROCLOR)	12672-29-6	9.3	G	46	G	10,000	C
PCB-1254 (AROCLOR)	11097-69-1	4.4	G	46	G	10,000	C
PCB-1260 (AROCLOR)	11096-82-5	9	G	46	G	190,000	C
PEBULATE	1114-71-2	10,000	C	10,000	C	10,000	C
PENTACHLOROBENZENE	608-93-5	180	G	2,600	G	190,000	C
PENTACHLOROETHANE	76-01-7	210	G	1,000	G	10,000	C
PENTACHLORONITROBENZENE	82-68-8	72	G	350	G	190,000	C
PENTACHLOROPHENOL	87-86-5	47	G	230	G	190,000	C
PHENACETIN	62-44-2	8,500	G	41,000	G	190,000	C
PHENANTHRENE	85-01-8	66,000	G	190,000	C	190,000	C
PHENOL	108-95-2	3,800	N	16,000	N	18,000	N
PHENYL MERCAPTAN	108-98-5	220	G	3,200	G	10,000	C
PHENYLENEDIAMINE, M-	108-45-2	1,300	G	19,000	G	190,000	C
PHENYLPHENOL, 2-	90-43-7	9,800	G	48,000	G	190,000	C

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

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*	
PHORATE	298-02-2	44	G	640	G	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	48,000	G	190,000	C
PRONAMIDE	23950-58-5	17,000	G	190,000	C	190,000	C
PROPANIL	709-98-8	1,100	G	16,000	G	190,000	C
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	3,800	N	10,000	C	10,000	C
PROPAZINE	139-40-2	4,400	G	10,000	C	10,000	C
PROPHAM	122-42-9	4,400	G	64,000	G	190,000	C
PROPYLBENZENE, N-	103-65-1	10,000	C	10,000	C	10,000	C
PROPYLENE OXIDE	75-56-9	78	G	380	G	690	N
PYRENE	129-00-0	6,600	G	96,000	G	190,000	C
PYRIDINE	110-86-1	220	G	3,200	G	10,000	C
QUINOLINE	91-22-5	6	G	30	G	10,000	C
QUIZALOFOP (ASSURE)	76578-14-8	2,000	G	29,000	G	190,000	C
RDX	121-82-4	170	G	830	G	190,000	C
RESORCINOL	108-46-3	190,000	C	190,000	C	190,000	C
RONNEL	299-84-3	11,000	G	160,000	G	190,000	C
SIMAZINE	122-34-9	160	G	760	G	190,000	C
STRYCHNINE	57-24-9	66	G	960	G	190,000	C
STYRENE	100-42-5	10,000	C	10,000	C	10,000	C
TEBUTHIURON	34014-18-1	15,000	G	190,000	C	190,000	C
TERBACIL	5902-51-2	2,900	G	42,000	G	190,000	C
TERBUFOS	13071-79-9	5.5	G	80	G	10,000	C
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	66	G	960	G	190,000	C
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00014	G	0.0007	G	190,000	C
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	60	N	300	N	340	N
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	7.7	N	38	N	44	N
TETRACHLOROETHYLENE (PCE)	127-18-4	770	N	3,200	N	3,600	N
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6,600	G	96,000	G	190,000	C
TETRAETHYL LEAD	78-00-2	0.022	G	0.32	G	10,000	C
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	110	G	1,600	G	10,000	C
TETRAHYDROFURAN	109-99-9	240	N	1,200	N	1,400	N
THIOFANOX	39196-18-4	66	G	960	G	190,000	C
THIRAM	137-26-8	1,100	G	16,000	G	190,000	C
TOLUENE	108-88-3	10,000	C	10,000	C	10,000	C
TOLUIDINE, M-	108-44-1	1,200	G	5,700	G	10,000	C
TOLUIDINE, O-	95-53-4	1,200	G	5,700	G	10,000	C
TOLUIDINE, P-	106-49-0	620	G	3,000	G	190,000	C
TOXAPHENE	8001-35-2	17	G	83	G	190,000	C
TRIALLATE	2303-17-5	2,900	G	10,000	C	10,000	C
TRIBROMOMETHANE (BROMOFORM)	75-25-2	410	N	2,000	N	2,300	N
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	10,000	C	10,000	C	10,000	C
TRICHLOROACETIC ACID	76-03-9	270	G	1,300	G	190,000	C
TRICHLOROBENZENE, 1,2,4-	120-82-1	640	G	3,100	G	10,000	C
TRICHLOROBENZENE, 1,3,5-	108-70-3	1,300	G	19,000	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	4	N	16	N	18	N
TRICHLOROETHYLENE (TCE)	79-01-6	38	N	160	N	180	N
TRICHLOROPHENOL, 2,4,5-	95-95-4	22,000	G	190,000	C	190,000	C
TRICHLOROPHENOL, 2,4,6-	88-06-2	220	G	3,200	G	190,000	C
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	2,200	G	32,000	G	190,000	C
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP) (SILVEX)	93-72-1	1,800	G	26,000	G	190,000	C
TRICHLOROPROPANE, 1,1,2-	598-77-6	1,100	G	10,000	C	10,000	C
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.14	G	3.0	G	28	N
TRICHLOROPROPENE, 1,2,3-	96-19-5	5.7	N	24	N	27	N
TRIETHYLAMINE	121-44-8	130	N	560	N	640	N
TRIETHYLENE GLYCOL	112-27-6	10,000	C	10,000	C	10,000	C

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

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*	
TRIFLURALIN	1582-09-8	1,700	G	12,000	G	190,000	C
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	130	N	560	N	640	N
TRIMETHYLBENZENE, 1,3,5-	108-67-8	2,200	G	10,000	C	10,000	C
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	22	G	320	G	10,000	C
TRINITROTOLUENE, 2,4,6-	118-96-7	110	G	1,600	G	190,000	C
VINYL ACETATE	108-05-4	3,900	N	10,000	C	10,000	C
VINYL BROMIDE (BROMOETHENE)	593-60-2	14	N	70	N	80	N
VINYL CHLORIDE	75-01-4	0.9	G	61	G	280	N
WARFARIN	81-81-2	66	G	960	G	190,000	C
XYLENES (TOTAL)	1330-20-7	1,900	N	8,000	N	9,100	N
ZINEB	12122-67-7	11,000	G	160,000	G	190,000	C

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

Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*								*Nonuse Aquifers*				*Soil Buffer Distance (feet)*
		TDS ≤ 2500				*TDS > 2500*								
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*		
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	
ACENAPHTHENE	83-32-9	250	3,100 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	250	2,800 E	700	8,000 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	8.4	1.0 E	39	4.6 E	840	100 E	3,900	460 E	8.4	1.0 E	39	4.6 E	NA
ACETALDEHYDE	75-07-0	1.9	0.23 E	7.9	0.96 E	190	23 E	790	96 E	1.9	0.23 E	7.9	0.96 E	NA
ACETONE	67-64-1	3,800	430 E	10,000	1,200 E	10,000	10,000 C	10,000	10,000 C	10,000	4,300 E	10,000	10,000 C	NA
ACETONITRILE	75-05-8	13	1.5 E	53	6 E	1,300	150 E	5,300	600 E	130	15 E	530	60 E	NA
ACETOPHENONE	98-86-2	420	230 E	1,200	640 E	10,000	10,000 C	10,000	10,000 C	420	230 E	1,200	640 E	NA
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	0.019	0.08 E	0.089	0.37 E	1.9	8 E	8.9	37 E	19	78 E	89	370 E	20
ACROLEIN	107-02-8	0.0042	0.00047 E	0.018	0.002 E	0.42	0.047 E	1.8	0.2 E	0.042	0.0047 E	0.18	0.02 E	NA
ACRYLAMIDE	79-06-1	0.019	0.0033 E	0.25	0.043 E	1.9	0.33 E	25	4.3 E	0.019	0.0033 E	0.25	0.043 E	NA
ACRYLIC ACID	79-10-7	0.21	0.039 E	0.88	0.16 E	21	3.9 E	88	16 E	21	3.9 E	88	16 E	NA
ACRYLONITRILE	107-13-1	0.072	0.01 E	0.37	0.051 E	7.2	1 E	37	5.1 E	7.2	1 E	37	5.1 E	NA
ALACHLOR	15972-60-8	0.2	0.077 E	0.2	0.077 E	20	7.7 E	20	7.7 E	0.2	0.077 E	0.2	0.077 E	NA
ALDICARB	116-06-3	0.3	0.05 E	0.3	0.05 E	30	5 E	30	5 E	300	50 E	300	50 E	NA
ALDICARB SULFONE	1646-88-4	0.2	0.027 E	0.2	0.027 E	20	2.7 E	20	2.7 E	0.2	0.027 E	0.2	0.027 E	NA
ALDICARB SULFOXIDE	1646-87-3	0.4	0.045 E	0.4	0.045 E	40	4.5 E	40	4.5 E	0.4	0.045 E	0.4	0.045 E	NA
ALDRIN	309-00-2	0.0043	0.52 E	0.02	2.4 E	0.43	52 E	2.0	240 E	2	240 E	2	240 E	10
ALLYL ALCOHOL	107-18-6	0.021	0.0025 E	0.088	0.01 E	2.1	0.25 E	9	1 E	2.1	0.25 E	9	1 E	NA
AMETRYN	834-12-8	6	6.5 E	6	6.5 E	600	650 E	600	650 E	6	6.5 E	6	6.5 E	NA
AMINOBIPHENYL, 4-	92-67-1	0.0035	0.0014 E	0.016	0.0062 E	0.35	0.14 E	1.6	0.62 E	3.5	1.4 E	16	6.2 E	NA
AMITROLE	61-82-5	0.078	0.032 E	0.36	0.15 E	8	3.2 E	36	15 E	78	32 E	360	150 E	NA
AMMONIA	7664-41-7	3,000	360 E	3,000	360 E	10,000	10,000 C	10,000	10,000 C	3,000	360 E	3,000	360 E	NA
AMMONIUM SULFAMATE	7773-06-0	200	24 E	200	24 E	20,000	2,400 E	20,000	2,400 E	200	24 E	200	24 E	NA
ANILINE	62-53-3	0.21	0.12 E	0.88	0.52 E	21	12 E	88	52 E	0.21	0.12 E	0.88	0.52 E	NA
ANTHRACENE	120-12-7	6.6	350 E	6.6	350 E	6.6	350 E	6.6	350 E	6.6	350 E	6.6	350 E	10
ATRAZINE	1912-24-9	0.3	0.13 E	0.3	0.13 E	30	13 E	30	13 E	0.3	0.13 E	0.3	0.13 E	NA
AZINPHOS-METHYL (GUTHION)	86-50-0	13	15 E	35	40 E	1,300	1,500 E	3,200	3,600 E	13	15 E	35	40 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	200	970 E	200	970 E	200	970 E	200	970 E	200	970 E	200	970 E	20
BENTAZON	25057-89-0	20	2.9 E	20	2.9 E	2,000	290 E	2,000	290 E	20	2.9 E	20	2.9 E	NA
BENZENE	71-43-2	0.5	0.13 E	0.5	0.13 E	50	13 E	50	13 E	50	13 E	50	13 E	NA
BENZIDINE	92-87-5	0.000098	0.13 E	0.0015	2 E	0.0098	13 E	0.15	200 E	0.098	130 E	1.5	2,000 E	5
BENZO[A]ANTHRACENE	56-55-3	0.032	28 E	0.49	430 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	0.019	26 E	0.12	170 E	0.12	170 E	0.12	170 E	0.12	170 E	0.12	170 E	5

[1] For other options see Section 250.308
All concentrations in mg/kg
E—Number calculated by the soil to groundwater equation is section 250.308
C—Cap
NA—The soil buffer distance option is not available for this substance
THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.
HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*												*Soil Buffer Distance (feet)*
		TDS ≤ 2500				*TDS > 2500*				*Nonuse Aquifers*				
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*		
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	
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	0.019	210 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	17,000	3,200 E	47,000	9,000 E	190,000	52,000 E	190,000	52,000 E	17,000	3,200 E	47,000	9,000 E	NA
BENZOTRICHLORIDE	98-07-7	0.0056	0.014 E	0.026	0.063 E	0.56	1.4 E	3	6.3 E	5.6	14 E	26	63 E	30
BENZYL ALCOHOL	100-51-6	420	150 E	1,200	430 E	10,000	10,000 C	10,000	10,000 C	420	150 E	1,200	430 E	NA
BENZYL CHLORIDE	100-44-7	0.1	0.059 E	0.51	0.3 E	10	5.9 E	51	30 E	10	5.9 E	51	30 E	NA
BETA PROPIOLACTONE	57-57-8	0.0012	0.00015 E	0.0063	0.00076 E	0.1	0.015 E	0.63	0.076 E	0.012	0.0015 E	0.063	0.0076 E	NA
BHC, ALPHA	319-84-6	0.012	0.055 E	0.054	0.25 E	1	5.5 E	5.4	25 E	12	55 E	54	250 E	20
BHC, BETA-	319-85-7	0.041	0.24 E	0.19	1.1 E	4.1	24 E	10	59 E	10	59 E	10	59 E	15
BHC, GAMMA (LINDANE)	58-89-9	0.02	0.072 E	0.02	0.072 E	2	7.2 E	2	7.2 E	20	72 E	20	72 E	20
BIPHENYL, 1,1-	92-52-4	9.1	40 E	43	190 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	13	3.4 E	35	9.2 E	1,300	340 E	3,500	920 E	13	3.4 E	35	9.2 E	NA
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.015	0.0045 E	0.076	0.023 E	1.5	0.45 E	7.6	2.3 E	1.5	0.45 E	7.6	2.3 E	NA
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	30	8 E	30	8 E	3,000	800 E	3,000	800 E	3,000	800 E	3,000	800 E	NA
BIS(CHLOROMETHYL) ETHER	542-88-1	0.000079	0.000012 E	0.0004	0.00006 E	0.0079	0.001 E	0.04	0.006 E	0.0079	0.001 E	0.04	0.006 E	NA
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	0.6	130 E	0.6	130 E	29	6,300 E	29	6,300 E	29	6,300 E	29	6,300 E	10
BISPHENOL A	80-05-7	210	810 E	580	2,200 E	12,000	46,000 E	12,000	46,000 E	12,000	46,000 E	12,000	46,000 E	20
BROMACIL	314-40-9	7	1.8 E	7	1.8 E	700	180 E	700	180 E	7	1.8 E	7	1.8 E	NA
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
BROMODICHLORO METHANE (THM)	75-27-4	8	2.7 E	8	2.7 E	800	270 E	800	270 E	8	2.7 E	8	2.7 E	NA
BROMOMETHANE	74-83-9	1	0.54 E	1	0.54 E	100	54 E	100	54 E	100	54 E	100	54 E	NA
BROMOXYNIL	1689-84-5	83	71 E	230	200 E	8,300	7,100 E	13,000	11,000 E	83	71 E	230	200 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	0.021	0.0086 E	0.1	0.041 E	2.1	0.86 E	10	4.1 E	2.1	0.86 E	10	4.1 E	NA
BUTYL ALCOHOL, N-	71-36-3	420	50 E	1,200	140 E	10,000	5,000 E	10,000	10,000 C	4,200	500 E	10,000	1,400 E	NA
BUTYLATE	2008-41-5	40	58 E	40	58 E	4,000	5,800 E	4,000	5,800 E	40	58 E	40	58 E	30
BUTYLBENZENE, N-	104-51-8	210	1,300 E	580	3,700 E	1,500	9,500 E	1,500	9,500 E	210	1,300 E	580	3,700 E	15
BUTYLBENZENE, SEC-	135-98-8	420	980 E	1,200	2,800 E	1,700	4,000 E	1,700	4,000 E	420	980 E	1,200	2,800 E	30
BUTYLBENZENE, TERT-	98-06-6	420	760 E	1,200	2,200 E	3,000	5,400 E	3,000	5,400 E	420	760 E	1,200	2,200 E	30
BUTYLBENZYL PHTHALATE	85-68-7	38	3,200 E	180	10,000 C	270	10,000 C	270	10,000 C	270	10,000 C	270	10,000 C	10
CAPTAN	133-06-2	32	20 E	50	31 E	50	31 E	50	31 E	50	31 E	50	31 E	NA

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B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*										*Nonuse Aquifers*				*Soil Buffer Distance (feet)*
		TDS ≤ 2500				*TDS > 2500*										
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*				
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*			
CARBARYL	63-25-2	420	250 E	1,200	700 E	12,000	7,000 E	12,000	7,000 E	12,000	7,000 E	12,000	7,000 E			NA
CARBAZOLE	86-74-8	3.7	24 E	17	110 E	120	760 E	120	760 E	4	24 E	17	110 E			15
CARBOFURAN	1563-66-2	4	0.87 E	4	0.87 E	400	87 E	400	87 E	4	0.87 E	4	0.87 E			NA
CARBON DISULFIDE	75-15-0	150	130 E	620	530 E	10,000	10,000 C	10,000	10,000 C	150	130 E	620	530 E			NA
CARBON TETRACHLORIDE	56-23-5	0.5	0.26 E	0.5	0.26 E	50	26 E	50	26 E	5	2.6 E	5	2.6 E			NA
CARBOXIN	5234-68-4	70	53 E	70	53 E	7,000	5,300 E	7,000	5,300 E	70	53 E	70	53 E			NA
CHLORAMBEN	133-90-4	10	1.6 E	10	1.6 E	1,000	160 E	1,000	160 E	10	1.6 E	10	1.6 E			NA
CHLORDANE	57-74-9	0.2	49 E	0.2	49 E	5.6	1,400 E	5.6	1,400 E	5.6	1,400 E	5.6	1,400 E			10
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	10,000	1,800 E	10,000	7,300 E	10,000	10,000 C	10,000	10,000 C	10,000	1,800 E	10,000	7,300 E			NA
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	0.21	0.049 E	0.88	0.2 E	21	4.9 E	88	20 E	21	4.9 E	88	20 E			NA
CHLOROACETALDEHYDE	107-20-0	0.24	0.029 E	1.1	0.13 E	24	2.9 E	110	13 E	0.24	0.029 E	1.1	0.1 E			NA
CHLOROACETOPHENONE, 2-	532-27-4	0.13	0.039 E	0.35	0.11 E	13	3.9 E	35	11.0 E	130	39 E	350	110 E			NA
CHLOROANILINE, P-	106-47-8	0.37	0.47 E	1.7	2.1 E	37	47 E	170	210 E	0.37	0.47 E	1.7	2.1 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	0.66	4.4 E	3.1	20 E	66	440 E	310	2,000 E	660	4,400 E	1,300	8,600 E			15
CHLOROBUTANE, 1-	109-69-3	170	270 E	470	730 E	10,000	10,000 C	10,000	10,000 C	170	270 E	470	730 E			30
CHLORODIBROMO METHANE (THM)	124-48-1	8	2.5 E	8	2.5 E	800	250 E	800	250 E	800	250 E	800	250 E			NA
CHLORODIFLUORO METHANE (THM)	75-45-6	10,000	2,800 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	2,800 E	10,000	10,000 C			NA
CHLOROETHANE	75-00-3	25	5.4 E	120	26 E	2,500	540 E	10,000	2,600 E	2,500	540 E	10,000	2,600 E			NA
CHLOROFORM (THM)	67-66-3	8	2 E	8	2 E	800	200 E	800	200 E	80	20 E	80	20 E			NA
CHLORONAPHTHALENE, 2-	91-58-7	330	7,000 E	930	20,000 E	1,200	26,000 E	1,200	26,000 E	330	7,000 E	930	20,000 E			15
CHLORONITROBENZENE, P-	100-00-5	4.2	5.5 E	12	16 E	420	550 E	1,200	1,600 E	4.2	5.5 E	12	16 E			NA
CHLOROPHENOL, 2-	95-57-8	4	4.4 E	4	4.4 E	400	440 E	400	440 E	4	4.4 E	4	4.4 E			NA
CHLOROPRENE	126-99-8	0.016	0.0038 E	0.083	0.02 E	1.6	0.38 E	8.3	2 E	1.6	0.38 E	8.3	2 E			NA
CHLOROPROPANE, 2-	75-29-6	21	16 E	88	67 E	2,100	1,600 E	8,800	6,700 E	21	16 E	88	67 E			NA
CHLOROTHALONIL	1897-45-6	24	61 E	60	150 E	60	150 E	60	150 E	24	61 E	60	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	0.2	2.3 E	0.2	2.3 E	20	230 E	20	230 E	0.2	2.3 E	0.2	2.3 E			15
CHLORSULFURON	64902-72-3	210	29 E	580	80 E	19,000	2,600 E	19,000	2,600 E	210	29 E	580	80 E			NA
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	7	110 E	7	110 E	50	820 E	50	820 E	50	820 E	50	820 E			15
CHRYSENE	218-01-9	0.19	230 E	0.19	230 E	0.19	230 E	0.19	230 E	0.19	230 E	0.19	230 E			5

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		TDS ≤ 2500				*TDS > 2500*										
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*				
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*			
CRESOL(S)	1319-77-3	130	23 E	530	92 E	10,000	2,300 E	10,000	9,200 E	10,000	2,300 E	10,000	9,200 E			NA
CRESOL, 4,6-DINITRO-O-	534-52-1	0.33	0.25 E	0.93	0.7 E	33	25 E	93	70 E	330	250 E	930	700 E			NA
CRESOL, O- (2-METHYLPHENOL)	95-48-7	210	35 E	580	96 E	21,000	3,500 E	58,000	9,600 E	21,000	3,500 E	58,000	9,600 E			NA
CRESOL, M- (3-METHYLPHENOL)	108-39-4	210	41 E	580	110 E	10,000	4,100 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C			NA
CRESOL, P- (4-METHYLPHENOL)	106-44-5	21	4.9 E	58	14 E	2,100	490 E	5,800	1,400 E	21,000	4,900 E	58,000	14,000 E			NA
CRESOL, P-CHLORO-M-	59-50-7	420	870 E	1,200	2,500 E	42,000	87,000 E	120,000	190,000 C	420	870 E	1,200	2,500 E			30
CROTONALDEHYDE	4170-30-3	0.038	0.0048 E	0.18	0.023 E	3.8	0.48 E	18	2.3 E	3.8	0.48 E	18	2.3 E			NA
CROTONALDEHYDE, TRANS-	123-73-9	0.038	0.0048 E	0.18	0.023 E	3.8	0.48 E	18	2.3 E	3.8	0.48 E	18	2.3 E			NA
CUMENE (ISOPROPYL BENZENE)	98-82-8	84	600 E	350	2,500 E	5,000	10,000 C	5,000	10,000 C	5,000	10,000 C	5,000	10,000 C			15
CYANAZINE	21725-46-2	0.1	0.061 E	0.1	0.061 E	10	6.1 E	10	6.1 E	0.1	0.061 E	0.1	0.061 E			NA
CYCLOHEXANE	110-82-7	1,300	1,700 E	5,300	6,900 E	5,500	7,200 E	5,500	7,200 E	1,300	1,700 E	5,300	6,900 E			NA
CYCLOHEXANONE	108-94-1	150	41 E	620	170 E	10,000	4,100 E	10,000	10,000 C	150	41 E	620	170 E			NA
CYFLUTHRIN	68359-37-5	0.1	33 E	0.1	33 E	0.1	33 E	0.1	33 E	0.1	33 E	0.1	33 E			10
CYROMAZINE	66215-27-8	31	96 E	88	270 E	3,100	9,600 E	8,800	27,000 E	31	96 E	88	270 E			20
DDD, 4,4'-	72-54-8	0.3	33 E	1.4	150 E	16	1,800 E	16	1,800 E	16	1,800 E	16	1,800 E			10
DDE, 4,4'-	72-55-9	0.21	46 E	1	220 E	4	870 E	4	870 E	4	870 E	4	870 E			10
DDT, 4,4'-	50-29-3	0.21	130 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	1.2	0.7 E	5.6	3.3 E	120	70 E	560	330 E	1,200	700 E	4,000	2,300 E			NA
DIAMINOTOLUENE, 2,4-	95-80-7	0.018	0.0036 E	0.085	0.017 E	1.8	0.36 E	8.5	1.7 E	18	3.6 E	85	17 E			NA
DIAZINON	333-41-5	0.1	0.14 E	0.1	0.14 E	10	14 E	10	14 E	0.1	0.14 E	0.1	0.14 E			30
DIBENZO[A,H] ANTHRACENE	53-70-3	0.0055	25 E	0.06	270 E	0.06	270 E	0.06	270 E	0.06	270 E	0.06	270 E			5
DIBENZOFURAN	132-64-9	4.2	110 E	12	310 E	420	11,000 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	42	170 E	120	490 E	2,000	8,200 E	2,000	8,200 E	42	170 E	120	490 E			20
DIBROMOETHANE, 1,2-(ETHYLENE DIBROMIDE)	106-93-4	0.005	0.0012 E	0.005	0.0012 E	0.5	0.12 E	0.5	0.12 E	0.5	0.12 E	0.5	0.12 E			NA
DIBROMOMETHANE	74-95-3	0.84	0.32 E	3.5	1.4 E	84	32 E	350	140 E	84	32 E	350	140 E			NA
DIBUTYL PHTHALATE, N-	84-74-2	420	1,700 E	1,200	4,900 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C			20
DICAMBA	1918-00-9	400	45 E	400	45 E	40,000	4,500 E	40,000	4,500 E	400	45 E	400	45 E			NA
DICHLOROACETIC ACID (HAA)	76-43-6	6	0.79 E	6	0.79 E	600	79 E	600	79 E	6	0.79 E	6	0.79 E			NA
DICHLORO-2-BUTENE, 1,4-	764-41-0	0.0012	0.00067 E	0.006	0.0034 E	0.12	0.07 E	0.6	0.34 E	0.0012	0.0007 E	0.006	0.0034 E			NA

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		Residential			*Nonresidential*			*Residential*			*Nonresidential*			*Residential*			*Nonresidential*			
		100 X GW MSC	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		
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	0.16	8.8	E	0.76	42	E	16	880	E	76	4,200	E	160	8,800	E	310	17,000	E	10
DICHLORODIFLUORO-METHANE (FREON 12)	75-71-8	100	100	E	100	100	E	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	NA
DICHLOROETHANE, 1,1-	75-34-3	3.1	0.75	E	16	3.9	E	310	75	E	1,600	390	E	31	7.5	E	160	39	E	NA
DICHLOROETHANE, 1,2-	107-06-2	0.5	0.1	E	0.5	0.1	E	50	10	E	50	10	E	5	1	E	5	1	E	NA
DICHLOROETHYLENE, 1,1-	75-35-4	0.7	0.19	E	0.7	0.19	E	70	19	E	70	19	E	7	1.9	E	7	1.9	E	NA
DICHLOROETHYLENE, CIS-1,2-	156-59-2	7	1.6	E	7	1.6	E	700	160	E	700	160	E	70	16	E	70	16	E	NA
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	10	2.3	E	10	2.3	E	1,000	230	E	1,000	230	E	100	23	E	100	23	E	NA
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.5	0.076	E	0.5	0.076	E	50	7.6	E	50	7.6	E	50	7.6	E	50	7.6	E	NA
DICHLOROPHENOL, 2,4-	120-83-2	2	1	E	2	1	E	200	100	E	200	100	E	2,000	1,000	E	2,000	1,000	E	NA
DICHLOROPHENOXY ACETIC ACID, 2,4- (2,4-D)	94-75-7	7	1.8	E	7	1.8	E	700	180	E	700	180	E	7,000	1,800	E	7,000	1,800	E	NA
DICHLOROPROPANE, 1,2-	78-87-5	0.5	0.11	E	0.5	0.11	E	50	11	E	50	11	E	5	1.1	E	5	1.1	E	NA
DICHLOROPROPENE, 1,3-	542-75-6	0.73	0.13	E	3.4	0.61	E	73	13	E	340	61	E	73	13	E	340	61	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	0.25	0.059	E	1.2	0.28	E	25	5.9	E	120	28	E	0.25	0.059	E	1.2	0.28	E	NA
DICYCLOPENTADIENE	77-73-6	0.063	0.13	E	0.26	0.56	E	6	13	E	26	56	E	0.1	0.1	E	0.3	1	E	30
DIELDRIN	60-57-1	0.0046	0.13	E	0.021	0.58	E	0.46	13	E	2.1	58	E	4.6	130	E	17	470	E	15
DIETHANOLAMINE	111-42-2	NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA
DIETHYL PHTHALATE	84-66-2	3,300	1,000	E	9,300	2,900	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	0.83	0.32	E	2.3	0.89	E	83	32	E	230	89	E	830	320	E	2,300	890	E	NA
DIMETHOXYBENZIDINE, 3,3-	119-90-4	0.046	0.15	E	0.21	0.71	E	5	15	E	21	71	E	46	150	E	210	710	E	20
DIMETHRIN	70-38-2	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	3.6	240	E	10
DIMETHYLAMINOAZO BENZENE, P-	60-11-7	0.016	0.042	E	0.074	0.19	E	1.6	4.2	E	7.4	19	E	16	42	E	74	190	E	20
DIMETHYLANILINE, N,N-	121-69-7	8.3	4.7	E	23	13	E	830	470	E	2,300	1,300	E	830	470	E	2,300	1,300	E	NA

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THMs—The values listed for trihalomethanes (THMs) are the total for all THMs combined.
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Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*												*Nonuse Aquifers*						*Soil Buffer Distance (feet)*
		TDS ≤ 2500						*TDS > 2500*												
		Residential				*Nonresidential*			*Residential*			*Nonresidential*			*Residential*			*Nonresidential*		
		100 X GW MSC	*Generic Value*			*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		
DIMETHYLBENZIDINE, 3,3-	119-93-7	0.0066	0.36	E	0.031	1.7	E	0.7	36	E	3.1	170	E	7	360	E	31	1,700	E	10
DIMETHYL METHYLPHOSPHONATE	756-79-6	10	1.2	E	10	1.2	E	1,000	120	E	1,000	120	E	10	1.2	E	10	1.2	E	NA
DIMETHYLPHENOL, 2,4-	105-67-9	83	36	E	230	100	E	8,300	3,600	E	10,000	10,000	C	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	8.3	0.94	E	23	2.6	E	830	94	E	2,300	260	E	8,300	940	E	23,000	2,600	E	NA
DINITROTOLUENE, 2,4-	121-14-2	0.24	0.057	E	1.1	0.26	E	24	6	E	110	26	E	240	57	E	1,100	260	E	NA
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.049	0.015	E	0.23	0.068	E	5	2	E	23	7	E	49	15	E	230	68	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	0.64	0.084	E	3.2	0.42	E	64	8.4	E	320	42	E	6.4	0.84	E	32	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	100	59	E	290	170	E	10,000	5,900	E	29,000	17,000	E	30,000	18,000	E	30,000	18,000	E	NA
DIPHENYLHYDRAZINE, 1,2-	122-66-7	0.091	0.16	E	0.43	0.76	E	9.1	16	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	0.07	0.18	E	0.07	0.18	E	7	18	E	7	18	E	70	180	E	70	180	E	20
DITHIANE, 1,4-	505-29-3	8	1.3	E	8	1.3	E	800	130	E	800	130	E	8	1.3	E	8	1.3	E	NA
DIURON	330-54-1	8.3	7.1	E	23	20	E	830	710	E	2,300	2,000	E	8.3	7.1	E	23	20	E	NA
ENDOSULFAN	115-29-7	25	130	E	48	250	E	48	250	E	48	250	E	48	250	E	48	250	E	15
ENDOSULFAN I (ALPHA)	959-98-8	25	130	E	50	260	E	50	260	E	50	260	E	25	130	E	50	260	E	15
ENDOSULFAN II (BETA)	33213-65-9	25	150	E	45	260	E	45	260	E	45	260	E	25	150	E	45	260	E	15
ENDOSULFAN SULFATE	1031-07-8	12	70	E	12	70	E	12	70	E	12	70	E	12	70	E	12	70	E	15
ENDOTHALL	145-73-3	10	4.1	E	10	4.1	E	1,000	410	E	1,000	410	E	10	4.1	E	10	4.1	E	NA
ENDRIN	72-20-8	0.2	5.5	E	0.2	5.5	E	20	550	E	20	550	E	0.2	5.5	E	0.2	5.5	E	15
EPICHLOROHYDRIN	106-89-8	0.21	0.042	E	0.88	0.17	E	21	4.2	E	88	17	E	21	4.2	E	88	17	E	NA
ETHEPHON	16672-87-0	21	2.4	E	58	6.7	E	2,100	240	E	5,800	670	E	21	2.4	E	58	6.7	E	NA
ETHION	563-12-2	2.1	46	E	5.8	130	E	85	1,900	E	85	1,900	E	2.1	46	E	5.8	130	E	15
ETHOXYETHANOL, 2- (EGEE)	110-80-5	42	5.9	E	180	25	E	4,200	590	E	10,000	2,500	E	4,200	590	E	10,000	2,500	E	NA
ETHYL ACETATE	141-78-6	15	3.9	E	62	16	E	1,500	390	E	6,200	1,600	E	1,500	390	E	6,200	1,600	E	NA
ETHYL ACRYLATE	140-88-5	1.5	0.58	E	7.0	2.7	E	150	58	E	700	270	E	150	58	E	700	270	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
ETHYL DIPROPYL THIOCARBAMATE, S- (EPTC)	759-94-4	100	71	E	290	210	E	10,000	7,100	E	10,000	10,000	C	100	71	E	290	210	E	NA
ETHYL ETHER	60-29-7	830	230	E	2,300	650	E	10,000	10,000	C	10,000	10,000	C	830	230	E	2,300	650	E	NA
ETHYL METHACRYLATE	97-63-2	63	10	E	260	43	E	6,300	1,000	E	10,000	4,300	E	63	10	E	260	43	E	NA
ETHYLENE CHLORHYDRIN	107-07-3	83	10	E	230	26	E	8,300	950	E	10,000	2,600	E	83	10	E	230	26	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

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B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*										*Nonuse Aquifers*				*Soil Buffer Distance (feet)*
		TDS ≤ 2500				*TDS > 2500*										
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*				
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*			
ETHYLENE THIOUREA (ETU)	96-45-7	0.33	0.037 E	0.93	0.1 E	33	3.7 E	93	10 E	330	37 E	930	100 E			NA
ETHYLP-NITROPHENYL PHENYLPHOSPHORO THIOATE	2104-64-5	0.042	0.13 E	0.12	0.37 E	4.2	13 E	12	37 E	0.042	0.13 E	0.1	0.37 E			20
FENAMIPHOS	22224-92-6	0.07	0.06 E	0.07	0.06 E	7	6 E	7	6 E	0.07	0.06 E	0.07	0.06 E			NA
FENVALERATE (PYDRIN)	51630-58-1	8.5	94 E	8.5	94 E	8.5	94 E	8.5	94 E	8.5	94 E	8.5	94 E			15
FLUOMETURON	2164-17-2	9	2.5 E	9	2.5 E	900	250 E	900	250 E	9	2.5 E	9	2.5 E			NA
FLUORANTHENE	206-44-0	26	3,200 E	26	3,200 E	26	3,200 E	26	3,200 E	26	3,200 E	26	3,200 E			10
FLUORENE	86-73-7	170	3,400 E	190	3,800 E	190	3,800 E	190	3,800 E	190	3,800 E	190	3,800 E			15
FLUOROTRICHLORO METHANE (FREON 11)	75-69-4	200	87 E	200	87 E	10,000	8,700 E	10,000	8,700 E	10,000	8,700 E	10,000	8,700 E			NA
FONOFOS	944-22-9	1	2.9 E	1	2.9 E	100	290 E	100	290 E	1	2.9 E	1	2.9 E			20
FORMALDEHYDE	50-00-0	100	12 E	100	12 E	10,000	1,200 E	10,000	1,200 E	10,000	1,200 E	10,000	1,200 E			NA
FORMIC ACID	64-18-6	0.063	0.0071 E	0.26	0.029 E	6.3	0.71 E	26	2.9 E	0.63	0.071 E	2.6	0.29 E			NA
FOSETYL-AL	39148-24-8	13,000	12,000 E	35,000	31,000 E	190,000	190,000 C	190,000	190,000 C	13,000	12,000 E	35,000	31,000 E			NA
FURAN	110-00-9	4.2	1.8 E	12	5.2 E	420	180 E	1,200	520 E	420	180 E	1,200	520 E			NA
FURFURAL	98-01-1	11	1.4 E	35	4.4 E	1,100	140 E	3,500	440 E	11	1.4 E	35	4.4 E			NA
GLYPHOSATE	1071-83-6	70	620 E	70	620 E	7,000	62,000 E	7,000	62,000 E	70	620 E	70	620 E			15
HEPTACHLOR	76-44-8	0.04	0.68 E	0.04	0.68 E	4	68 E	4	68 E	18	310 E	18	310 E			15
HEPTACHLOR EPOXIDE	1024-57-3	0.02	1.1 E	0.02	1.1 E	2	110 E	2	110 E	20	1,100 E	20	1,100 E			10
HEXACHLOROBENZENE	118-74-1	0.1	0.96 E	0.1	0.96 E	0.6	5.8 E	0.6	5.8 E	0.6	5.8 E	0.6	5.8 E			15
HEXACHLOROBUTADIENE	87-68-3	0.94	11 E	4.4	52 E	94	1,100 E	290	3,400 E	290	3,400 E	290	3,400 E			15
HEXACHLOROCYCLO PENTADIENE	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	150	1,400 E	620	5,600 E	950	8,700 E	950	8,700 E	150	1,400 E	620	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	4.8 E			NA
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.001	0.00011 E	0.0051	0.00057 E	0.1	0.011 E	0.51	0.057 E	0.01	0.0011 E	0.051	0.0057 E			NA
HYDROQUINONE	123-31-9	1.2	0.16 E	5.7	0.77 E	120	16 E	570	77 E	1,200	160 E	5,700	770 E			NA
INDENO[1,2,3-CD]PYRENE	193-39-5	0.019	1,500 E	0.28	22,000 E	1.9	150,000 E	6.2	190,000 C	6.2	190,000 C	6.2	190,000 C			5
IPRODIONE	36734-19-7	170	490 E	470	1,300 E	1,300	3,700 E	1,300	3,700 E	170	490 E	470	1,300 E			20
ISOBUTYL ALCOHOL	78-83-1	1,300	340 E	3,500	910 E	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C	10,000	10,000 C			NA
ISOPHORONE	78-59-1	10	1.9 E	10	1.9 E	1,000	190 E	1,000	190 E	10,000	1,900 E	10,000	1,900 E			NA

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		TDS ≤ 2500						*TDS > 2500*												
		Residential			*Nonresidential*			*Residential*			*Nonresidential*			*Residential*			*Nonresidential*			
		100 X GW MSC	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		
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	0.0073	1	E	0.034	4.7	E	0.73	100	E	3.4	470	E	7.3	1,000	E	34	4,700	E	10
MALATHION	121-75-5	50	170	E	50	170	E	5,000	10,000	C	5,000	10,000	C	10,000	10,000	C	10,000	10,000	C	20
MALEIC HYDRAZIDE	123-33-1	400	47	E	400	47	E	40,000	4,700	E	40,000	4,700	E	400	47	E	400	47	E	NA
MANEB	12427-38-2	21	2	E	58	6.6	E	2,100	240	E	2,300	260	E	21	2	E	58	6.6	E	NA
MERPHOS OXIDE	78-48-8	0.13	17	E	0.35	46	E	13	1,700	E	35	4,600	E	0.13	17	E	0.35	46	E	10
METHACRYLONITRILE	126-98-7	0.42	0.069	E	1.2	0.2	E	42	6.9	E	120	20	E	0.42	0.069	E	1.2	0.2	E	NA
METHAMIDOPHOS	10265-92-6	0.21	0.026	E	0.58	0.072	E	21	2.6	E	58	7.2	E	0.21	0.026	E	0.58	0.072	E	NA
METHANOL	67-56-1	840	99	E	3,500	410	E	10,000	9,900	E	10,000	10,000	C	10,000	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	4.2	0.48	E	18	2	E	420	48	E	1,800	200	E	42	4.8	E	180	20	E	NA
METHYL ACETATE	79-20-9	4,200	780	E	10,000	2,200	E	10,000	10,000	C	10,000	10,000	C	4,200	780	E	10,000	2,200	E	NA
METHYL ACRYLATE	96-33-3	4	1	E	18	5	E	420	100	E	1,800	450	E	420	100	E	1,800	450	E	NA
METHYL CHLORIDE	74-87-3	3	0.38	E	3	0.38	E	300	38	E	300	38	E	300	38	E	300	38	E	NA
METHYL ETHYL KETONE	78-93-3	400	76	E	400	76	E	10,000	7,600	E	10,000	7,600	E	10,000	7,600	E	10,000	7,600	E	NA
METHYL HYDRAZINE	60-34-4	0.0042	0.00048	E	0.018	0.002	E	0.42	0.048	E	1.8	0.2	E	0.042	0.0048	E	0.18	0.02	E	NA
METHYL ISOBUTYL KETONE	108-10-1	330	51	E	930	140	E	10,000	5,100	E	10,000	10,000	C	10,000	5,100	E	10,000	10,000	C	NA
METHYL ISOCYANATE	624-83-9	0.21	0.029	E	0.88	0.12	E	21	2.9	E	88	12	E	0.21	0.029	E	0.88	0.12	E	NA
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	6.3	1.6	E	26	6.4	E	630	160	E	2,600	640	E	6.3	1.6	E	26	6.4	E	NA
METHYL METHACRYLATE	80-62-6	150	20	E	620	84	E	10,000	2,000	E	10,000	8,400	E	10,000	2,000	E	10,000	8,400	E	NA
METHYL METHANESULFONATE	66-27-3	0.74	0.092	E	3.4	0.42	E	74	9.2	E	340	42	E	0.74	0.092	E	3.4	0.42	E	NA
METHYL PARATHION	298-00-0	0.1	0.21	E	0.1	0.21	E	10	21	E	10	21	E	100	210	E	100	210	E	30
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	8.4	47	E	35	200	E	840	4,700	E	3,500	10,000	C	8.4	47	E	35	200	E	15
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	2	0.28	E	2	0.28	E	200	28	E	200	28	E	20	2.8	E	20	2.8	E	NA
METHYLCHLOROPHENOXY ACETIC 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	0.23	1.8	E	3.4	26	E	23	180	E	340	2,600	E	0.23	1.8	E	3.4	26	E	15
METHYLNAPHTHALENE, 2-	91-57-6	17	680	E	47	1,900	E	1,700	68,000	E	2,500	100,000	E	17	680	E	47	1,900	E	15
METHYLSTYRENE, ALPHA	98-83-9	290	510	E	820	1,400	E	10,000	10,000	C	10,000	10,000	C	290	510	E	820	1,400	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

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		TDS ≤ 2500				*TDS > 2500*										
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*				
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*			
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 (HAA)	79-11-8	6	0.67 E	6	0.67 E	600	67 E	600	67 E	6	0.67 E	6	0.67 E			NA
NAPHTHALENE	91-20-3	10	25 E	10	25 E	1,000	2,500 E	1,000	2,500 E	3,000	7,500 E	3,000	7,500 E			30
NAPHTHYLAMINE, 1-	134-32-7	0.041	0.33 E	0.19	1.5 E	4.1	33 E	19	150 E	41	330 E	190	1,500 E			15
NAPHTHYLAMINE, 2-	91-59-8	0.041	0.013 E	0.19	0.062 E	4.1	1.3 E	19	6.2 E	41	13 E	190	62 E			NA
NAPROPAMIDE	15299-99-7	420	970 E	1,200	2,800 E	7,000	16,000 E	7,000	16,000 E	420	970 E	1,200	2,800 E			30
NITROANILINE, O-	88-74-4	42	8 E	120	21 E	4,200	750 E	12,000	2,100 E	42	8 E	120	21 E			NA
NITROANILINE, P-	100-01-6	3.7	0.55 E	17	2.5 E	370	55 E	1,700	250 E	3.7	0.55 E	17	2.5 E			NA
NITROBENZENE	98-95-3	8.3	3.6 E	23	10 E	830	360 E	2,300	1,000 E	8,300	3,600 E	10,000	10,000 C			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	33	6.7 E	93	19 E	3,300	670 E	9,300	1,900 E	33,000	6,700 E	93,000	19,000 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	0.0018	0.00029 E	0.0093	0.0015 E	0.18	0.029 E	0.93	0.15 E	0.018	0.0029 E	0.093	0.015 E			NA
NITROSODIETHYLAMINE, N-	55-18-5	0.000045	0.0000079 E	0.00058	0.0001 E	0.0045	0.0008 E	0.058	0.01 E	0.00045	0.00008 E	0.0058	0.001 E			NA
NITROSODIMETHYLAMINE, N-	62-75-9	0.00014	0.000019 E	0.0018	0.00024 E	0.014	0.0019 E	0.18	0.024 E	0.0014	0.00019 E	0.018	0.0024 E			NA
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	0.014	0.017 E	0.063	0.078 E	1.4	1.7 E	6.3	7.8 E	14	17 E	63	78 E			NA
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.01	0.0014 E	0.049	0.0068 E	1	0.14 E	4.9	0.68 E	10	1.4 E	49	6.8 E			NA
NITROSODIPHENYLAMINE, N-	86-30-6	15	23 E	69	110 E	1,500	2,300 E	3,500	5,500 E	3,500	5,500 E	3,500	5,500 E			30
NITROSO-N-ETHYLUREA, N-	759-73-9	0.00084	0.000097 E	0.013	0.0015 E	0.08	0.0097 E	1.3	0.15 E	0.8	0.097 E	13	1.5 E			NA
OCTYL PHTHALATE, DI-N-	117-84-0	42	10,000 C	120	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	25	150 E	70	410 E	2,000	10,000 C	2,000	10,000 C	25	150 E	70	410 E			15
PCB-1016 (AROCLOR)	12674-11-2	0.037	10 E	0.17	47 E	4	1,000 E	17	4,700 E	0.04	10 E	0.17	47 E			10
PCB-1221 (AROCLOR)	11104-28-2	0.037	0.18 E	0.17	0.83 E	3.7	18 E	17	83 E	0.037	0.18 E	0.17	0.83 E			20
PCB-1232 (AROCLOR)	11141-16-5	0.037	0.14 E	0.17	0.7 E	3.7	14 E	17	66 E	0.037	0.14 E	0.17	0.7 E			20
PCB-1242 (AROCLOR)	53469-21-9	0.037	4 E	0.17	20 E	3.7	440 E	10	1,200 E	0.037	4 E	0.17	20 E			10
PCB-1248 (AROCLOR)	12672-29-6	0.037	18 E	0.17	81 E	3.7	1,800 E	5.4	2,600 E	0.037	18 E	0.17	81 E			10
PCB-1254 (AROCLOR)	11097-69-1	0.037	75 E	0.17	340 E	3.7	7,500 E	5.7	10,000 C	0.037	75 E	0.17	340 E			5
PCB-1260 (AROCLOR)	11096-82-5	0.037	170 E	0.17	770 E	3.7	17,000 E	8	36,000 E	0.037	170 E	0.17	770 E			5
PEBULATE	1114-71-2	210	350 E	580	980 E	9,200	10,000 C	9,200	10,000 C	210	350 E	580	980 E			30
PENTACHLOROBENZENE	608-93-5	3.3	260 E	9.3	750 E	74	5,900 E	74	5,900 E	74	5,900 E	74	5,900 E			10
PENTACHLOROETHANE	76-01-7	0.81	3.9 E	3.8	19 E	81	390 E	380	1,900 E	0.81	3.9 E	3.8	19 E			20

[1] For other options see Section 250.308
All concentrations in mg/kg
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NA—The soil buffer distance option is not available for this substance
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HAAs—The values listed for haloacetic acids (HAAs) are the total for all HAAs combined.

Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*												*Nonuse Aquifers*						*Soil Buffer Distance (feet)*
		TDS ≤ 2500						*TDS > 2500*												
		Residential			*Nonresidential*			*Residential*			*Nonresidential*			*Residential*			*Nonresidential*			
		100 X GW MSC	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		
PENTACHLORO NITROBENZENE	82-68-8	0.28	6	E	1	26	E	28	560	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	33	13	E	150	58	E	3,300	1,300	E	15,000	5,800	E	33,000	13,000	E	76,000	29,000	E	NA
PHENANTHRENE	85-01-8	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	110	10,000	E	10
PHENOL	108-95-2	200	33	E	200	33	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	20,000	3,300	E	NA
PHENYL MERCAPTAN	108-98-5	4,200	6,400	E	12	18	E	420	640	E	1,200	1,800	E	4.2	6.4	E	12	18	E	30
PHENYLENEDIAMINE, M-	108-45-2	25	3.5	E	70	9.9	E	2,500	350	E	7,000	990	E	25,000	3,500	E	70,000	9,900	E	NA
PHENYLPHENOL, 2-	90-43-7	38	550	E	180	2,600	E	3,800	55,000	E	18,000	190,000	C	38,000	190,000	C	70,000	190,000	C	15
PHORATE	298-02-2	0.83	1.8	E	2	4.9	E	83	180	E	230	490	E	0.83	1.8	E	2	4.9	E	30
PHTHALIC ANHYDRIDE	85-44-9	8,300	2,600	E	23,000	7,100	E	190,000	190,000	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
PROMETON	1610-18-0	40	39	E	40	39	E	4,000	3,900	E	4,000	3,900	E	40	39	E	40	39	E	NA
PRONAMIDE	23950-58-5	310	190	E	880	540	E	1,500	920	E	1,500	920	E	310	190	E	880	540	E	NA
PROPANIL	709-98-8	21	11	E	58	30	E	2,100	1,100	E	5,800	3,000	E	21	11	E	58	30	E	NA
PROPANOL, 2- (ISOPROPYL ALCOHOL)	67-63-0	42	7.3	E	180	31	E	4,200	730	E	10,000	3,100	E	42	7	E	180	31	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	10	2.4	E	10	2.4	E	1,000	240	E	1,000	240	E	10	2.4	E	10	2.4	E	NA
PROPYLBENZENE, N-	103-65-1	210	400	E	880	1,700	E	5,200	9,900	E	5,200	9,900	E	210	400	E	880	1,700	E	30
PROPYLENE OXIDE	75-56-9	0.3	0.052	E	1.4	0.24	E	30	5.2	E	140	24	E	0.30	0.052	E	1.4	0.24	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	4.2	0.47	E	12	1.3	E	420	47	E	1,200	130	E	42	4.7	E	120	13	E	NA
QUINOLINE	91-22-5	0.024	0.081	E	0.11	0.37	E	2.4	8.1	E	11	37	E	24	81	E	110	370	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	8,300	970	E	23,000	2,700	E	190,000	97,000	E	190,000	190,000	C	8,300	970	E	23,000	2,700	E	NA
RONNEL	299-84-3	210	330	E	580	910	E	4,000	6,200	E	4,000	6,200	E	210	330	E	580	910	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	1.3	1.1	E	3.5	2.8	E	130	110	E	350	280	E	1,300	1,100	E	3,500	2,800	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	0.04	0.055	E	0.04	0.055	E	4	5.5	E	4	5.5	E	0.04	0.055	E	0.04	0.055	E	30
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	1.3	6	E	3.5	16	E	58	270	E	58	270	E	58	270	E	58	270	E	20

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All concentrations in mg/kg
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Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*												*Nonuse Aquifers*						*Soil Buffer Distance (feet)*
		TDS ≤ 2500						*TDS > 2500*												
		Residential			*Nonresidential*			*Residential*			*Nonresidential*			*Residential*			*Nonresidential*			
		100 X GW MSC	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		*100 X GW MSC*	*Generic Value*		
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
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.08	0.026	E	0.43	0.13	E	8	2.6	E	43	13	E	8	2.6	E	43	13	E	NA
TETRACHLOROETHYLENE (PCE)	127-18-4	0.5	0.43	E	0.5	0.43	E	50	43	E	50	43	E	5	4.3	E	5	4.3	E	NA
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	130	2,000	E	350	5,500	E	13,000	190,000	C	18,000	190,000	C	18,000	190,000	C	18,000	190,000	C	15
TETRAETHYL LEAD	78-00-2	0.00042	0.0052	E	0.0012	0.015	E	0.042	0.52	E	0.1	1.5	E	0.42	0.52	E	1	15	E	15
TETRAETHYLDITHIO PYROPHOSPHATE	3689-24-5	2.1	3.1	E	5.8	8.6	E	210	310	E	580	860	E	2.1	3.1	E	5.8	8.6	E	30
TETRAHYDROFURAN	109-99-9	2.6	0.57	E	13	2.8	E	260	57	E	1,300	280	E	2.6	0.57	E	13	2.8	E	NA
THIOFANOX	39196-18-4	1.3	0.14	E	3.5	0.39	E	130	14	E	350	39	E	1.3	0.14	E	3.5	0.39	E	NA
THIRAM	137-26-8	21	55	E	58	150	E	2,100	5,500	E	3,000	7,800	E	21	55	E	58	150	E	20
TOLUENE	108-88-3	100	44	E	100	44	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	10,000	4,400	E	NA
TOLUIDINE, M-	108-44-1	4.6	2.1	E	21	9.7	E	460	210	E	2,100	970	E	4.6	2.1	E	21	9.7	E	NA
TOLUIDINE, O-	95-53-4	4.6	5.2	E	21	24	E	460	520	E	2,100	2,400	E	4,600	5,200	E	10,000	10,000	C	NA
TOLUIDINE, P-	106-49-0	2.4	2.2	E	11	10	E	240	220	E	1,100	1,000	E	2.4	2.2	E	11	10	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	54	280	E	150	770	E	400	2,000	E	400	2,000	E	54	280	E	150	770	E	15
TRIBROMOMETHANE (BROMOFORM) (THM)	75-25-2	8	3.5	E	8	3.5	E	800	350	E	800	350	E	800	350	E	800	350	E	NA
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	6,300	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	10,000	10,000	C	20
TRICHLOROACETIC ACID (HAA)	76-03-9	2	0.32	E	2	0.32	E	200	32	E	200	32	E	2	0.32	E	2	0.332	E	NA
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
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	420	2,600	E	1,200	7,300	E	42,000	190,000	C	100,000	190,000	C	100,000	190,000	C	100,000	190,000	C	15
TRICHLOROPHENOL, 2,4,6-	88-06-2	4.2	12	E	12	34	E	420	1,200	E	1,200	3,400	E	4,200	12,000	E	12,000	34,000	E	20
TRICHLOROPHENOXY ACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	7	1.5	E	7	1.5	E	700	150	E	700	150	E	7,000	1,500	E	7,000	1,500	E	NA
TRICHLOROPHENOXY PROPIONIC ACID, 2,4,5-(2,4,5-TP)(SILVEX)	93-72-1	5	22	E	5	22	E	500	2,200	E	500	2,200	E	5	22	E	5	22	E	20
TRICHLOROPROPANE, 1,1,2-	598-77-6	21	3.6	E	58	9.9	E	2,100	360	E	5,800	990	E	21	3.6	E	58	9.9	E	NA

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Table 3—Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*										*Nonuse Aquifers*				*Soil Buffer Distance (feet)*
		TDS ≤ 2500				*TDS > 2500*										
		Residential		*Nonresidential*		*Residential*		*Nonresidential*		*Residential*		*Nonresidential*				
		100 X GW MSC	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*	*100 X GW MSC*	*Generic Value*			
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	0.063	0.037 E	0.26	0.15 E	6.3	3.7 E	26	15 E	0.063	0.037 E	0.26	0.15 E			NA
TRIETHYLAMINE	121-44-8	1.5	0.36 E	6.2	1.5 E	150	36 E	620	150 E	1.5	0.36 E	6.2	1.5 E			NA
TRIETHYLENE GLYCOL	112-27-6	8,300	1,000 E	10,000	2,900 E	10,000	10,000 C	10,000	10,000 C	8,300	1,000 E	10,000	2,900 E			NA
TRIFLURALIN	1582-09-8	1	1.9 E	1	1.9 E	100	190 E	100	190 E	1	1.9 E	1	1.9 E			30
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	1.5	8.4 E	6.2	35 E	150	840 E	620	3,500 E	150	840 E	620	3,500 E			15
TRIMETHYLBENZENE, 1,3,5-	108-67-8	42	74 E	120	210 E	4,200	7,400 E	4,900	8,600 E	42	74 E	120	210 E			30
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.5	0.2 E	0.5	0.2 E	50	20 E	50	20 E	50	20 E	50	20 E			NA
TRINITROTOLUENE, 2,4,6-	118-96-7	0.2	0.023 E	0.2	0.023 E	20	2.3 E	20	2.3 E	0.2	0.023 E	0.2	0.023 E			NA
VINYL ACETATE	108-05-4	42	5 E	180	21 E	4,200	500 E	10,000	2,100 E	42	5 E	180	21 E			NA
VINYL BROMIDE (BROMOETHENE)	593-60-2	0.15	0.073 E	0.78	0.38 E	15	7.3 E	78	38 E	1.5	0.73 E	7.8	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	1.3	3.1 E	3.5	8.4 E	130	310 E	350	840 E	1,300	3,100 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	210	33 E	580	92 E	1,000	160 E	1,000	160 E	210	33 E	580	92 E			NA

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

REGULATED SUBSTANCE	*CASRN*	*Residential MSC 0-15 feet*		*Nonresidential MSCs*			
				Surface Soil 0-2 feet		*Subsurface Soil 2-15 feet*	
ALUMINUM	7429-90-5	190,000	C	190,000	C	190,000	C
ANTIMONY	7440-36-0	88	G	1,300	G	190,000	C
ARSENIC	7440-38-2	12	G	61	G	190,000	C
BARIUM AND COMPOUNDS	7440-39-3	44,000	G	190,000	C	190,000	C
BERYLLIUM	7440-41-7	2	G	11	G	190,000	C
BORON AND COMPOUNDS	7440-42-8	44,000	G	190,000	C	190,000	C
CADMIUM	7440-43-9	1.2	G	6	G	190,000	C
CHROMIUM III	16065-83-1	190,000	C	190,000	C	190,000	C
CHROMIUM VI	18540-29-9	4	G	220	G	20,000	N
COBALT	7440-48-4	66	G	960	G	190,000	N
COPPER	7440-50-8	8,100	G	120,000	G	190,000	C
CYANIDE, FREE	57-12-5	130	G	1,900	G	190,000	C
FLUORIDE	16984-48-8	8,800	G	130,000	G	190,000	C
IRON	7439-89-6	150,000	G	190,000	C	190,000	C
LEAD	7439-92-1	500	U	1,000	S	190,000	C
LITHIUM	7439-93-2	440	G	6,400	G	190,000	C
MANGANESE	7439-96-5	10,000	G	150,000	G	190,000	C
MERCURY	7439-97-6	35	G	510	G	190,000	C
MOLYBDENUM	7439-98-7	1,100	G	16,000	G	190,000	C
NICKEL	7440-02-0	4,400	G	64,000	G	190,000	C
PERCHLORATE	7790-98-9	150	G	2,200	G	190,000	C
SELENIUM	7782-49-2	1,100	G	16,000	G	190,000	C
SILVER	7440-22-4	1,100	G	16,000	G	190,000	C
STRONTIUM	7440-24-6	130,000	G	190,000	C	190,000	C
THALLIUM	7440-28-0	2	G	32	G	190,000	C
TIN	7440-31-5	130,000	G	190,000	C	190,000	C
VANADIUM	7440-62-2	15	G	220	G	190,000	C
ZINC	7440-66-6	66,000	G	190,000	C	190,000	C

All concentrations in mg/kg
R—Residential
NR—Non-Residential
G—Ingestion
N—Inhalation
C- Cap
U—UBK Model
S—SEGH Model
NA—Not Applicable

Table 4—Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values[1]

REGULATED SUBSTANCE	*CASRN*	*Used Aquifers*								*Nonuse 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	1	29	1	29	100	2,900	100	2,900	1,000	29,000	1,000	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	600	1,900	600	1,900	60,000	190,000	60,000	190,000	190,000	190,000	190,000	190,000	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	1	59	4	160	130	5,900	350	16,000	1,300	59,000	3,500	160,000	15
COPPER	7440-50-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	40,000	4,400	190,000	44,000	190,000	44,000	NA
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	8	2,500	23	6,900	830	190,000	2,300	190,000	8,300	190,000	23,000	190,000	10
MANGANESE	7439-96-5	30	2,000	30	2,000	3,000	190,000	3,000	190,000	30,000	190,000	30,000	190,000	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	1.5	0.17	1.5	0.17	150	17	150	17	1,500	170	1,500	170	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
STRONTIUM	7440-24-6	400	44	400	44	40,000	4,400	40,000	4,400	190,000	44,000	190,000	44,000	NA
THALLIUM	7440-28-0	0.2	14	0.2	14	20	1,400	20	1,400	200	14,000	200	14,000	15
TIN	7440-31-5	2,500	190,000	7,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	10
VANADIUM	7440-62-2	0.29	290	0.82	820	29	29,000	82	82,000	290	190,000	820	190,000	5
ZINC	440-66-6	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
NA—Not Applicable

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

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (µg/m^3)$^{-1}$*		*Koc*	*VOC?*	*Aqueous Sol (mg/L)*	*Aqueous Sol Reference[1]*	*TF Vol from Surface Soil*	*TF Vol from SubSurface Soil*	*Organic Liquid*	*Boiling Point (degrees C)*	*Degradation Coefficient (K)(yr^{-1})*
ACENAPHTHENE	83-32-9	0.06	I							4900		3.8	1,5,6				279	1.24
ACENAPHTHYLENE	208-96-8	0.06	S							4500		16.1	5,6,7				280	2.11
ACEPHATE	30560-19-1	0.004	I	0.0087	I					3		818000	6				340	
ACETALDEHYDE	75-07-0					0.009	I	0.0000022	I	4.1	X	1000000	1	13100	15100	X	20	
ACETONE	67-64-1	0.9	I			31	D			0.31	X	1000000	1	13100	15000	X	56	18.07
ACETONITRILE	75-05-8					0.06	I			0.5	X	1000000	1	13100	15000	X	82	4.50
ACETOPHENONE	98-86-2	0.1	I							170		5500	1			X	203	
ACETYLAMINO-FLUORENE, 2- (2AAF)	53-96-3			3.8	C			0.0013	C	1600		10.13	7				303	0.69
ACROLEIN	107-02-8	0.0005	I			0.00002	I			0.56	X	208000	1,2,4	13100	15100	X	53	4.50
ACRYLAMIDE	79-06-1	0.002	I	0.5	I	0.006	I	0.0001	I	25	X	2151000	4	13000	15000		193	
ACRYLIC ACID	79-10-7	0.5	I			0.001	I			29	X	1000000	2	13000	14900	X	141	1.39
ACRYLONITRILE	107-13-1	0.04	D	0.54	I	0.002	I	0.000068	I	11	X	73500	1	13100	15100	X	77	5.50
ALACHLOR	15972-60-8	0.01	I	0.056	C					110		140	2				378	
ALDICARB	116-06-3	0.001	I							22		6000	2				287	0.40
ALDICARB SULFONE	1646-88-4	0.001	I							10		8000	5				317	
ALDICARB SULFOXIDE	1646-87-3	0.001	M							0.22		330000	5				307	
ALDRIN	309-00-2	0.00003	I	17	I			0.0049	I	48000		0.02	4,5,6				330	0.22
ALLYL ALCOHOL	107-18-6	0.005	I			0.0001	X			3.2	X	1000000	2	13100	15000	X	97	18.07
AMETRYN	834-12-8	0.009	I							389		185	5				345	
AMINOBIPHENYL, 4-	92-67-1			21	C			0.006	C	110		1200	5				302	18.07
AMITROLE	61-82-5			0.94	C			0.00027	C	120		280000	4				258	0.69
AMMONIA	7664-41-7	0.97	H			0.1	I			3	X	310000	2,5,7	13100	15000	X	-33	
AMMONIUM SULFAMATE	7773-06-0	0.2	I							3		2160000	10				603	
ANILINE	62-53-3	0.007	P	0.0057	I	0.001	I	0.0000016	C	190	X	33800	1	13000	14900	X	184	
ANTHRACENE	120-12-7	0.3	I							21000		0.066	1,5,6,7,8,9				340	0.28
ATRAZINE	1912-24-9	0.035	I	0.23	C					130		70	2,4,5				313	
AZINPHOS-METHYL (GUTHION)	86-50-0	0.003	D			0.01	D			407.4		31.5	1, 2				421	
BAYGON (PROPOXUR)	114-26-1	0.004	I							31		2000	2,4,5				decomp.	4.50
BENOMYL	17804-35-2	0.05	I							1,900		2	5				520	
BENTAZON	25057-89-0	0.03	I							13		500	2				415	
BENZENE	71-43-2	0.004	I	0.055	I	0.03	I	0.0000078	I	58	X	1780.5	1,2,3,4	13100	15000	X	81	0.35
BENZIDINE	92-87-5	0.003	I	230	I			0.067	I	530,000		520	1,2,4				400	15.81

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Toxicity Value Sources:
C = California EPA Cancer Potency Factor
D = ATSDR Minimal Risk Level
H = Health Effects Assessment Summary Table (HEAST)
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Table 5—Physical and Toxicological Properties
A. Organic Regulated Substances

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (µg/m^3)$^{-1}$*		*Koc*	*VOC?*	*Aqueous Sol (mg/L)*	*Aqueous Sol Reference[1]*	*TF Vol from Surface Soil*	*TF Vol from SubSurface Soil*	*Organic Liquid*	*Boiling Point (degrees C)*	*Degradation Coefficient (K)(yr^{-1})*
BENZO[A]ANTHRACENE	56-55-3			0.7	X			0.00011	C	350000		0.011	1,5,6				438	0.19
BENZO[A]PYRENE	50-32-8			7.3	I			0.0011	C	910000		0.0038	1,5,6				495	0.24
BENZO[B]FLUORANTHENE	205-99-2			1.2	C			0.00011	C	550000		0.0012	5,6,7				357	0.21
BENZO[GHI]PERYLENE	191-24-2	0.06	S							2800000		0.00026	1,5,6				500	0.19
BENZO[K]FLUORANTHENE	207-08-9			1.2	C			0.00011	C	4400000		0.00055	5,6,7				480	0.06
BENZOIC ACID	65-85-0	4	I							32		2700	2,3,4,5				249	
BENZOTRICHLORIDE	98-07-7			13	I					920		53	1,5,13			X	221	121413.60
BENZYL ALCOHOL	100-51-6	0.1	P							100		40000	1,2,3			X	205	
BENZYL CHLORIDE	100-44-7	0.002	P	0.17	I	0.001	P	0.000049	C	190	X	493	1	13000	15000	X	179	20.90
BETA PROPIOLACTONE	57-57-8			14	C			0.004	C	4	X	370000	2	13100	15000	X	162	0.01
BHC, ALPHA	319-84-6	0.008	D	6.3	I			0.0018	I	1800		1.7	4,5,6,7				288	0.94
BHC, BETA-	319-85-7			1.8	I			0.00053	I	2300		0.1	6				304	1.02
BHC, GAMMA (LINDANE)	58-89-9	0.0003	I	1.1	C			0.00031	C	1400		7.3	4,5,6				323	1.05
BIPHENYL, 1,1-	92-52-4	0.05	I	0.008	X	0.0004	X			1,700		7.2	1				255	18.07
BIS(2-CHLOROETHOXY)METHANE	111-91-1	0.003	P							61		100500	4,6,7,9,10,11			X	218	
BIS(2-CHLOROETHYL)ETHER	111-44-4			1.1	I			0.00033	I	76	X	10200	1,4,5	13000	14900	X	179	0.69
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	0.04	I	0.07	H			0.00001	H	62	X	1700	5	13000	14900	X	189	0.69
BIS(CHLOROMETHYL)ETHER	542-88-1			220	I			0.062	I	16	X	22000	6	13100	15100	X	105	57270.57
BIS[2-ETHYLHEXYL]PHTHALATE	117-81-7	0.02	I	0.014	I			0.0000024	C	87000		0.285	4,5,6			X	384	0.65
BISPHENOL A	80-05-7	0.05	I							1,500		120	4				220	0.69
BROMACIL	314-40-9	0.1	M							58		815	2				421	
BROMOCHLOROMETHANE	74-97-5	0.01	M			0.04	X			27	X	16700	4	13100	15000	X	68	
BROMODICHLOROMETHANE	75-27-4	0.02	I	0.062	I			0.000037	C	93	X	4500	6	13100	15000	X	87	
BROMOMETHANE	74-83-9	0.0014	I			0.005	I			170	X	17500	2	13100	15000	X	4	6.66
BROMOXYNIL	1689-84-5	0.02	I							300		130	2				329	

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

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (μg/m^3)$^{-1}$*		*Koc*	*VOC?*	*Aqueous Sol (mg/L)*	*Aqueous Sol Reference[1]*	*TF Vol from Surface Soil*	*TF Vol from SubSurface Soil*	*Organic Liquid*	*Boiling Point (degrees C)*	*Degradation Coefficient (K)(yr^{-1})*
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	0.00003	I	120	X	735	1	13200	15000	X	-4.5	4.50
BUTYL ALCOHOL, N-	71-36-3	0.1	I							3.2	X	74000	1	13000	14900	X	118	4.68
BUTYLATE	2008-41-5	0.05	I							540	X	45	2	13200	15200	X	138	
BUTYLBENZENE, N-	104-51-8	0.05	P							2,500	X	15	1,6,7	13100	15100	X	183	
BUTYLBENZENE, SEC-	135-98-8	0.1	X							890	X	17	1,6,7	13100	15000	X	174	
BUTYLBENZENE, TERT-	98-06-6	0.1	X							680	X	30	1,6,7	13100	15000	X	169	
BUTYLBENZYL PHTHALATE	85-68-7	0.2	I	0.0019	P					34000		2.69	4,5,6			X	370	1.39
CAPTAN	133-06-2	0.13	I	0.0023	C			0.00000066	C	200		0.5	4				259	589.39
CARBARYL	63-25-2	0.1	I							190		120	2,4,5				315	4.22
CARBAZOLE	86-74-8			0.02	H					2,500		1.2	1,5,6				355	
CARBOFURAN	1563-66-2	0.005	I							43		700	2				311	
CARBON DISULFIDE	75-15-0	0.1	I			0.7	I			300	X	2100	1,2,3	13100	15100	X	46	
CARBON TETRACHLORIDE	56-23-5	0.004	I	0.07	I	0.1	I	0.000006	I	160	X	795	1,2,3	13100	15000	X	77	0.07
CARBOXIN	5234-68-4	0.1	I							260		170	5,6,8				407	
CHLORAMBEN	133-90-4	0.015	I							20		700	2				210	
CHLORDANE	57-74-9	0.0005	I	0.35	I	0.0007	I	0.0001	I	98000		0.056	4,5,7				351	0.09
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3					50	I			22	X	1400	4	13100	15000	X	-9	
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1			0.021	C	0.001	I	0.000006	C	48	X	3300	1,3,5,7,10	13100	15000	X	45	18.07
CHLOROACETALDEHYDE	107-20-0			0.3	X					3.2	X	1000000	9	13000	14900	X	85	
CHLOROACETO-PHENONE, 2-	532-27-4					0.00003	I			76		1100	3				247	4.50
CHLOROANILINE, P-	106-47-8	0.004	I	0.2	P					460		3900	1				232	
CHLOROBENZENE	108-90-7	0.02	I			0.05	P			200	X	490	3	13100	15000	X	132	0.84
CHLOROBENZILATE	510-15-6	0.02	I	0.11	C			0.000031	C	2600		13	4				415	3.60
CHLOROBUTANE, 1-	109-69-3	0.04	P							580	X	680	1,2,3,4	13200	15000	X	79	
CHLORODIBROMO-METHANE	124-48-1	0.02	I	0.084	I			0.000027	C	83	X	4200	4,6,7,9	13100	15100	X	116	1.39
CHLORODIFLUORO-METHANE	75-45-6					50	I			59	X	2899	4	13200	15000	X	-41	

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A. Organic Regulated Substances

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (μg/m^3)$^{-1}$*		*Koc*	*VOC?*	*Aqueous Sol (mg/L)*	*Aqueous Sol Reference[1]*	*TF Vol from Surface Soil*	*TF Vol from SubSurface Soil*	*Organic Liquid*	*Boiling Point (degrees C)*	*Degradation Coefficient (K)(yr^{-1})*
CHLOROETHANE	75-00-3	0.4	N	0.0029	N	10	I			42	X	5700	1	13100	15000	X	12	4.50
CHLOROFORM	67-66-3	0.01	I	0.019	C	0.098	D	0.000023	I	56	X	8000	1,2,3	13100	15000	X	61	0.01
CHLORONAPHTHALENE, 2-	91-58-7	0.08	I							8500		11.7	1				256	
CHLORONITRO-BENZENE, P-	100-00-5	0.001	P	0.0063	P	0.0006	P			480		220	1				242	
CHLOROPHENOL, 2-	95-57-8	0.005	I							400	X	24000	1,3,4	12900	14900	X	175	
CHLOROPRENE	126-99-8	0.02	H			0.02	I	0.0003	I	50	X	1736	9	13100	15000	X	59	0.69
CHLOROPROPANE, 2-	75-29-6					0.1	H			260	X	3100	1,3,5	13200	15000	X	47	
CHLOROTHALONIL	1897-45-6	0.015	I	0.0031	C			0.00000089	C	980		0.6	2				350	
CHLOROTOLUENE, O-	95-49-8	0.02	I							760	X	422	1,4,5	13100	15000	X	159	
CHLOROTOLUENE, P-	106-43-4	0.02	X							375	X	106	12	13000	14900	X	162	
CHLORPYRIFOS	2921-88-2	0.001	D							4600		1.12	2,4,6,7				377	
CHLORSULFURON	64902-72-3	0.05	I							11		192	2,5,6,8,9				531	
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	0.01	I							6,500		0.5	2,5,7				360	1.37
CHRYSENE	218-01-9			0.12	C			0.000011	C	490000		0.0019	1				448	0.13
CRESOL(S)	1319-77-3	0.1	D			0.06	C			25	X	20000	2	13000	14900	X	139	5.16
CRESOL, DINITRO-O-, 4,6-	534-52-1	0.0001	P							257		150	4				312	6.02
CRESOL, O-(METHYLPHENOL, 2-)	95-48-7	0.05	I							22	X	2500	3,5,6	13000	14900		191	18.07
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	0.05	I							35		2500	2			X	202	5.16
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	0.005	H							49		22000	6				202	9.03
CRESOL, P-CHLORO-M-	59-50-7	0.1	X							780		3846	2				235	
CROTONALDEHYDE	4170-30-3			1.9	S					5.6	X	180000	3	13000	14900	X	104	18.07
CROTONALDEHYDE, TRANS-	123-73-9	0.001	P	1.9	H					6.1	X	156000	1	13100	15100	X	104	18.07
CUMENE (ISOPROPYL BENZENE)	98-82-8	0.1	I			0.4	I			2800	X	50	1,5,6	13100	15100	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	13100	15100	X	81	
CYCLOHEXANONE	108-94-1	5	I			0.7	P			66	X	36500	1,2,4,5	13000	14900	X	157	

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CYFLUTHRIN	68359-37-5	0.025	I							130,000		0.001	2				448	
CYROMAZINE	66215-27-8	0.0075	I							1,200		11000	12				222	
DDD, 4,4'-	72-54-8			0.24	I			0.000069	C	44000		0.16	5,6,7				350	0.02
DDE, 4,4'-	72-55-9			0.34	I			0.000097	C	87000		0.04	5				348	0.02
DDT, 4,4'-	50-29-3	0.0005	I	0.34	I			0.000097	I	240000		0.0055	5,6,7				260	0.02
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	0.6	I	0.0012	I					47,000,000		200	5			X	214	4.50
DIALLATE	2303-16-4			0.061	H					190		40	2,4,6,8			X	328	1.39
DIAMINOTOLUENE, 2,4-	95-80-7			4	C			0.0011	C	36		7470	4				292	0.69
DIAZINON	333-41-5	0.0007	D							500		50	2,4,6,8			X	306	
DIBENZO[A,H]ANTHRACENE	53-70-3			4.1	C			0.0012	C	1800000		0.0006	1,5,6				524	0.13
DIBENZOFURAN	132-64-9	0.001	X							10233		4.48	1,6,7,9				287	7.23
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.0002	P	0.8	P	0.0002	I	0.006	P	140	X	1000	4	13000	15000	X	196	0.69
DIBROMOBENZENE, 1,4-	106-37-6	0.01	I							1,600		20	1				220	
DIBROMOETHANE, 1,2-(ETHYLENE DIBROMIDE)	106-93-4	0.009	I	2	I	0.009	I	0.0006	I	54	X	4150	1,2,3,5	13100	15100	X	131	2.11
DIBROMOMETHANE	74-95-3	0.01	H			0.004	X			110	X	11400	1	13100	15100	X	96	4.50
DIBUTYL PHTHALATE, N-	84-74-2	0.1	I							1600		400	1,2,3			X	340	11.00
DICAMBA	1918-00-9	0.03	I							0.27		5600	4,5,6,8,10				329	
DICHLOROACETIC ACID	76-43-6	0.004	I	0.05	I					8.1	X	1000000	1	12900	14900	X	194	
DICHLORO-2-BUTENE, 1,4-	764-41-0							0.0042	P	180	X	850	9	13100	15000	X	156	
DICHLORO-2-BUTENE, TRANS-1,4-	110-57-6							0.0042	S	215	X	850	9	12900	14800	X	155	
DICHLOROBENZENE, 1,2-	95-50-1	0.09	I			0.2	H			350	X	147	1,4,5,6,7	13100	15100	X	180	0.69
DICHLOROBENZENE, 1,3-	541-73-1	0.09	M							360	X	106	1	13100	15100	X	173	0.69
DICHLOROBENZENE, P-	106-46-7	0.07	D	0.0054	C	0.8	I	0.000011	C	510	X	82.9	1	12900	14900		174	0.69
DICHLOROBENZIDINE, 3,3'-	91-94-1			0.45	I			0.00034	C	22000		3.11	4,5,6				368	0.69
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	0.2	I			0.1	X			360	X	280	1	13200	15000	X	-30	0.69
DICHLOROETHANE, 1,1-	75-34-3	0.2	P	0.0057	C	0.5	H	0.0000016	C	52	X	5000	2	13100	15000	X	57	0.16
DICHLOROETHANE, 1,2-	107-06-2	0.006	X	0.091	I	0.007	P	0.000026	I	38	X	8412	1,2,3,4	13100	15000	X	83	0.07

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DICHLOROETHYLENE, 1,1-	75-35-4	0.05	I			0.2	I			65	X	2500	1,4,5	13100	15000	X	32	0.19
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.002	I							49	X	3500	1	13100	15000	X	60	0.01
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	0.02	I			0.06	P			47	X	6300	1	13100	15000	X	48	0.01
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	0.006	I	0.002	I	0.6	I	0.00000001	I	16	X	20000	1,2,3	13100	15000	X	40	4.50
DICHLOROPHENOL, 2,4-	120-83-2	0.003	I							160		4500	1				210	5.88
DICHLOROPHENOXY-ACETIC ACID, 2,4- (2,4-D)	94-75-7	0.01	I							59		677	4,5,6,7,10				215	1.39
DICHLOROPROPANE, 1,2-	78-87-5	0.09	D	0.036	C	0.004	I	0.00001	C	47	X	2700	1,3,4	13100	15000	X	96	0.10
DICHLOROPROPENE, 1,3-	542-75-6	0.03	I	0.1	I	0.02	I	0.000004	I	27	X	2700	6	13100	15000	X	108	22.38
DICHLOROPROPIONIC ACID, 2,2- (DALAPON)	75-99-0	0.03	I							62	X	500000	5	13000	14900	X	190	2.11
DICHLORVOS	62-73-7	0.0005	I	0.29	I	0.0005	I	0.000083	C	50		10000	2,4,5			X	234	
DICYCLOPENTADIENE	77-73-6	0.008	P			0.0003	X			810	X	40	5	13000	14900		167	
DIELDRIN	60-57-1	0.00005	I	16	I			0.0046	I	11000		0.17	4,5,6				385	0.12
DIETHANOLAMINE	111-42-2	0.002	P			0.0002	P			4		1000000	2,3,9			X	269	
DIETHYL PHTHALATE	84-66-2	0.8	I							81		1080	4,5,6			X	298	2.25
DIFLUBENZURON	35367-38-5	0.02	I							1,000		0.2	2				201	
DIISOPROPYL METHYLPHOSPHONATE	1445-75-6	0.08	I							10	X	160000	9	13000	14900	X	190	
DIMETHOATE	60-51-5	0.0002	I							110		25000	4				361	2.26
DIMETHOXYBENZIDINE, 3,3-	119-90-4			1.6	P					1,300		60	9				331	0.69
DIMETHRIN	70-38-2	0.3	M							27,000		0.036	13				353	
DIMETHYLAMINOAZO-BENZENE, P-	60-11-7			4.6	C			0.0013	C	1000		13.6	7				335	4.50
DIMETHYLANILINE, N,N-	121-69-7	0.002	I							180	X	1200	5,6,7,9	13000	14900	X	192	0.69
DIMETHYLBENZIDINE, 3,3-	119-93-7			11	P					22,000		1300	10				300	18.07
DIMETHYL METHYLPHOSPHONATE	756-79-6	0.06	P	0.0017	P					5	X	1000000	14	13000	14900	X	181	
DIMETHYLPHENOL, 2,4-	105-67-9	0.02	I							130		7869	1,4,6,7			X	211	18.07
DINITROBENZENE, 1,3-	99-65-0	0.0001	I							150		523	3,5,6,7				291	0.69
DINITROPHENOL, 2,4-	51-28-5	0.002	I							0.79		5600	2,4,5,6,7				332	0.48
DINITROTOLUENE, 2,4-	121-14-2	0.002	I	0.31	C			0.000089	C	51		270	4,5,6				300	0.69

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DINITROTOLUENE, 2,6-(2,6-DNT)	606-20-2	0.0003	X	1.5	P					74		200	6				300	0.69
DINOSEB	88-85-7	0.001	I							120		50	5				223	1.03
DIOXANE, 1,4-	123-91-1	0.03	I	0.1	I	0.11	D	0.0000077	C	7.8	X	1000000	5	13000	14900	X	101	0.69
DIPHENAMID	957-51-7	0.03	I							200		260	5				210	
DIPHENYLAMINE	122-39-4	0.025	I							190		300	3				302	4.50
DIPHENYLHYDRAZINE, 1,2-	122-66-7			0.8	I			0.00022	I	660		0.252	6				309	0.69
DIQUAT	85-00-7	0.0022	I							2.6		700000	5				355	
DISULFOTON	298-04-4	0.00004	I							1000		25	4,5,6			X	332	6.02
DITHIANE, 1,4-	505-29-3	0.01	I							22.7	X	3000	15	13000	14900		199	
DIURON	330-54-1	0.002	I							300		42	2,4,5				354	
ENDOSULFAN	115-29-7	0.006	I							2,000		0.48	4				401	2.78
ENDOSULFAN I (ALPHA)	959-98-8	0.006	S							2000		0.5	6				401	
ENDOSULFAN II (BETA)	33213-65-9	0.006	S							2300		0.45	6				390	
ENDOSULFAN SULFATE	1031-07-8	0.006	S							2300		0.117	7,9				409	
ENDOTHALL	145-73-3	0.02	I							120		100000	2				350	
ENDRIN	72-20-8	0.0003	I							11000		0.23	4,6,7,9				245	
EPICHLOROHYDRIN	106-89-8	0.006	P	0.0099	I	0.001	I	0.0000012	I	35	X	65800	1,3,4	13000	14900	X	116	4.50
ETHEPHON	16672-87-0	0.005	I							2		1240000	12				201	
ETHION	563-12-2	0.0005	I							8700		0.85	4,6,9,10			X	415	
ETHOXYETHANOL, 2-(EGEE)	110-80-5	0.09	P			0.2	I			12	X	1000000	2	13200	15000	X	136	4.50
ETHYL ACETATE	141-78-6	0.9	I			0.07	P			59	X	80800	1,2,3,4,5,6	13100	15000	X	77	18.07
ETHYL ACRYLATE	140-88-5	0.005	P	0.048	H	0.008	P			110	X	15000	1,2,6	13100	15100	X	100	18.07
ETHYL BENZENE	100-41-4	0.1	I	0.011	C	1	I	0.0000025	C	220	X	161	1,3,4	13100	15000	X	136	1.11
ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC)	759-94-4	0.025	I							240	X	365	2	12900	14900	X	127	
ETHYL ETHER	60-29-7	0.2	I							68	X	60400	1	13100	15100	X	35	
ETHYL METHACRYLATE	97-63-2	0.09	H			0.3	P			22	X	4635.5	9,10	13100	15000	X	117	
ETHYLENE CHLORHYDRIN	107-07-3	0.02	P							1	X	1000000	9	13000	14900	X	128	

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ETHYLENE GLYCOL	107-21-1	2	I			0.4	C			4.4	X	1000000	2	13100	15100	X	198	10.54
ETHYLENE THIOUREA (ETU)	96-45-7	0.00008	I	0.045	C			0.000013	C	0.23		20000	2				347	4.50
ETHYL P-NITROPHENYL PHENYLPHOSPHORO THIOATE	2104-64-5	0.00001	I							1,200		3.1	4				215	
FENAMIPHOS	22224-92-6	0.00025	I							300		329	2				390	
FENVALERATE (PYDRIN)	51630-58-1	0.025	I							4,400		0.085	5			X	300	
FLUOMETURON	2164-17-2	0.013	I							68		97.5	2,5,6,8				318	
FLUORANTHENE	206-44-0	0.04	I							49000		0.26	1,5,6				375	0.29
FLUORENE	86-73-7	0.04	I							7900		1.9	1				298	2.11
FLUOROTRICHLORO-METHANE (FREON 11)	75-69-4	0.3	I			0.7	H			130	X	1090	1,4,5,6	13100	15000	X	24	0.35
FONOFOS	944-22-9	0.002	I							1100		13	5,6,8			X	324	
FORMALDEHYDE	50-00-0	0.2	I			0.0098	D	0.000013	I	3.6	X	55000	1	13100	15100	X	-21	18.07
FORMIC ACID	64-18-6	0.9	P			0.0003	X			0.54	X	1000000	2	13000	14900	X	101	18.07
FOSETYL-AL	39148-24-8	3	I							310		120000	2				464	
FURAN	110-00-9	0.001	I							130	X	10000	1	13100	15000	X	31	2.25
FURFURAL	98-01-1	0.003	I			0.05	H			6.3	X	91000	1,2,3	13000	14900	X	162	
GLYPHOSATE	1071-83-6	0.1	I							3500		12000	1,5,6				417	
HEPTACHLOR	76-44-8	0.0005	I	4.5	I			0.0013	I	6800		0.18	4,6,7				310	46.84
HEPTACHLOR EPOXIDE	1024-57-3	0.000013	I	9.1	I			0.0026	I	21000		0.311	4,6,7,9				341	0.23
HEXACHLOROBENZENE	118-74-1	0.0008	I	1.6	I			0.00046	I	3800		0.006	1,4,5				319	0.06
HEXACHLOROBUTA-DIENE	87-68-3	0.001	P	0.078	I			0.000022	I	4700		2.89	4,5,6,7			X	215	0.69
HEXACHLOROCYCLOPEN-TADIENE	77-47-4	0.006	I			0.0002	I			7200		1.8	5,6,7			X	239	4.50
HEXACHLOROETHANE	67-72-1	0.0007	I	0.04	I	0.03	I	0.00001	C	2200	X	50	1	13000	15000		187	0.69
HEXANE	110-54-3	0.06	H			0.7	I			3600	X	9.5	1,5,6	13100	15000	X	69	
HEXAZINONE	51235-04-2	0.033	I							41		330000	1,2				408	
HEXYTHIAZOX (SAVEY)	78587-05-0	0.025	I							6,500		0.5	2				539	
HMX	2691-41-0	0.05	I							4		5	16				436	
HYDRAZINE/HYDRAZINE SULFATE	302-01-2			3	I	0.00003	P	0.0049	I	0.0053	X	1000000	2	13000	15000	X	114	18.07

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HYDROQUINONE	123-31-9	0.04	P	0.06	P					10		70000	2,3,5				285	18.07
INDENO[1,2,3-CD]PYRENE	193-39-5			1.2	C			0.00011	C	31000000		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							60	X	81000	1,2,3,4,5	13000	14900	X	108	17.57
ISOPHORONE	78-59-1	0.2	I	0.00095	I	2	C			31		12000	2,4,5			X	215	4.5
ISOPROPYL METHYLPHOSPHONATE	1832-54-8	0.1	I							1.84		50000	13			X	230	
KEPONE	143-50-0	0.0003	I	10	I			0.0046	C	55000		7.6	4				350	0.17
MALATHION	121-75-5	0.02	I							1300		143	4			X	351	2.46
MALEIC HYDRAZIDE	123-33-1	0.5	I							2.8		6000	4				260	
MANEB	12427-38-2	0.005	I							1		23	9,13				351	
MERPHOS OXIDE	78-48-8	0.00003	I							53,000		2.3	8,10,12			X	392	
METHACRYLONITRILE	126-98-7	0.0001	I			0.03	P			21	X	25700	1	13100	15100	X	90	
METHAMIDOPHOS	10265-92-6	0.00005	I							5		2000000	5				223	
METHANOL	67-56-1	0.5	I			4	C			2.8	X	1000000	2	13100	15100	X	65	36.14
METHOMYL	16752-77-5	0.025	I							20		58000	2				228	
METHOXYCHLOR	72-43-5	0.005	I							63000		0.045	4,5,6				346	0.69
METHOXYETHANOL, 2-	109-86-4	0.005	P			0.02	I			1	X	1000000	2	13100	15000	X	124	4.50
METHYL ACETATE	79-20-9	1	H							30	X	243500	4,5,6	13100	15100	X	57	
METHYL ACRYLATE	96-33-3	0.03	H			0.02	P			55	X	52000	1,2,5	13100	15100	X	70	18.07
METHYL CHLORIDE	74-87-3			0.013	H	0.09	I	0.0000018	H	6	X	6180	1,2,3,4	13200	15000	X	-24	4.50
METHYL ETHYL KETONE	78-93-3	0.6	I			5	I			32	X	275000	1,2,3,4,5	13100	15100	X	80	2.57
METHYL HYDRAZINE	60-34-4	0.001	P			0.00002	X	0.001	X	1	X	1000000	2	1300	14900	X	88	5.27
METHYL ISOBUTYL KETONE	108-10-1	0.08	H			3	I			17	X	19550	1,2,4,5	13100	15100	X	117	18.07
METHYL ISOCYANATE	624-83-9					0.001	C			10	X	100000	7	13000	15000	X	40	
METHYL N-BUTYL KETONE (2-HEXANONE)	591-78-6	0.005	I			0.03	I			54	X	17500	1	13100	15100	X	128	
METHYL METHACRYLATE	80-62-6	1.4	I			0.7	I			10	X	15600	1	13100	15100	X	100	4.50
METHYL METHANESULFONATE	66-27-3			0.099	C			0.000028	C	5.2		200000	2			X	203	
METHYL PARATHION	298-00-0	0.00025	I							790		25	4,5,6				348	3.61

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METHYL STYRENE (MIXED ISOMERS)	25013-15-4	0.006	H			0.04	H			2,200	X	89	9	13100	15000	X	163	
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4			0.0018	C	3	I	0.00000026	C	12	X	45000	1,2,4,6	13100	15100	X	55	0.69
METHYLCHLOROPHENOXYACETIC ACID (MCPA)	94-74-6	0.0005	I							112		1000	5,6,8,9				287	1.39
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	0.002	P	0.1	P			0.00043	C	3,000		13.9	10				379	
METHYLNAPHTHALENE, 2-	91-57-6	0.004	I			0.003	S			16000		25	1				241	
METHYLSTYRENE, ALPHA	98-83-9	0.07	H							660	X	560	9	13100	15100	X	165	
METOLACHLOR	51218-45-2	0.15	I							182	X	530	1,5	13000	15000	X	100	
METRIBUZIN	21087-64-9	0.025	I							95		1200	1,5				367	
MONOCHLOROACETIC ACID	79-11-8	0.002	H							0.24	X	858000	17	13000	14900		189	
NAPHTHALENE	91-20-3	0.02	I	0.12	C	0.003	I	0.000034	C	950		30	3				218	0.98
NAPHTHYLAMINE, 1-	134-32-7			1.8	S			0.00051	S	3200		1690	2				301	0.69
NAPHTHYLAMINE, 2-	91-59-8			1.8	C			0.00051	C	87		6.4	6				306	0.69
NAPROPAMIDE	15299-99-7	0.1	I							880		70	2				399	
NITROANILINE, O-	88-74-4	0.01	X			0.00005	X			27		1200	6				284	
NITROANILINE, P-	100-01-6	0.004	P	0.02	P	0.006	P			15		800	2				332	
NITROBENZENE	98-95-3	0.002	I			0.009	I	0.00004	I	130		2000	2			X	211	0.64
NITROGUANIDINE	556-88-7	0.1	I							0.13		4400	9				231	
NITROPHENOL, 2-	88-75-5	0.008	S							37		2100	1,2,3,4,5,6				215	9.01
NITROPHENOL, 4-	100-02-7	0.008	N							230		16000	2				279	25.81
NITROPROPANE, 2-	79-46-9					0.02	I	0.0027	H	20	X	16700	1,3,4,5	13000	14900	X	120	0.69
NITROSODIETHYLAMINE, N-	55-18-5			150	I			0.043	I	26	X	93000	10	13000	14900	X	176	0.69
NITROSODIMETHYLAMINE, N-	62-75-9	0.000008	P	51	I	0.00004	X	0.014	I	8.5	X	1000000	2	13000	14900	X	154	0.69
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3			5.4	I			0.0016	I	450		1200	9, 10, 11			X	235	0.69
NITROSODI-N-PROPYLAMINE, N-	621-64-7			7	I			0.002	C	11		9900	6			X	206	0.69

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NITROSODIPHENYLAMINE, N-	86-30-6			0.0049	I			0.0000026	C	580		35	1				269	3.72
NITROSO-N-ETHYLUREA, N-	759-73-9			27	C			0.0077	C	2		13000	9				223	1734.48
OCTYL PHTHALATE, DI-N-	117-84-0	0.01	P							980000000		3	5			X	234	0.69
OXAMYL (VYDATE)	23135-22-0	0.025	I							7.1		280000	2				334	
PARAQUAT	1910-42-5	0.0045	I							16200		660000	6,8				352	
PARATHION	56-38-2	0.006	H							2300		20	2,4,5,6,7			X	375	
PCB-1016 (AROCLOR)	12674-11-2	0.00007	I	2	S			0.00057	S	110000		0.25	5			X	325	
PCB-1221 (AROCLOR)	11104-28-2			2	S			0.00057	S	1900		0.59	5			X	275	
PCB-1232 (AROCLOR)	11141-16-5			2	S			0.00057	S	1500		1.45	7			X	290	
PCB-1242 (AROCLOR)	53469-21-9			2	S			0.00057	S	48000		0.1	5			X	325	
PCB-1248 (AROCLOR)	12672-29-6			2	S			0.00057	S	190000		0.054	7,9,11			X	340	
PCB-1254 (AROCLOR)	11097-69-1	0.00002	I	2	S			0.00057	S	810000		0.057	5			X	365	
PCB-1260 (AROCLOR)	11096-82-5			2	S			0.00057	S	1800000		0.08	5				385	
PEBULATE	1114-71-2	0.05	H							630		92	5			X	303	
PENTACHLOROBENZENE	608-93-5	0.0008	I							32000		0.74	1,5,6,7				277	0.37
PENTACHLOROETHANE	76-01-7			0.09	P					1905	X	480	1,3	13100	15100	X	160	
PENTACHLORONITROBENZENE	82-68-8	0.003	I	0.26	H					7900		0.44	4,6,8				328	0.36
PENTACHLOROPHENOL	87-86-5	0.005	I	0.4	I			0.0000046	C	20000		14	1,2,4,5				310	0.17
PHENACETIN	62-44-2			0.0022	C			0.00000063	C	110		763	2,3,9				341	4.50
PHENANTHRENE	85-01-8	0.3	S							38000		1.1	1,4,5				341	0.63
PHENOL	108-95-2	0.3	I			0.2	C			22	X	84300	1,2,3,4	13000	14900		182	36.14
PHENYL MERCAPTAN	108-98-5	0.001	P							562	X	653	5,9	13000	15000	X	170	
PHENYLENEDIAMINE, M-	108-45-2	0.006	I							12		351000	3				286	4.50
PHENYLPHENOL, 2-	90-43-7			0.0019	H					5,700		700	5				280	18.07
PHORATE	298-02-2	0.0002	H							810		50	2			X	319	
PHTHALIC ANHYDRIDE	85-44-9	2	I			0.02	C			79		6170	2				285	13490.40
PICLORAM	1918-02-1	0.07	I							15		430	2				373	
POLYCHLORINATED BIPHENYLS (AROCLORS) (PCBS)	1336-36-3			2	I			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							200		15	2				321	

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PROPANIL	709-98-8	0.005	I							160		225	2				355	
PROPANOL, 2-(ISOPROPYL ALCOHOL)	67-63-0	2	P			0.2	P			25	X	1000000	2	13000	14900	X	82	
PROPAZINE	139-40-2	0.02	I							155		8.6	1,5			X	318	
PROPHAM	122-42-9	0.02	I							51		250	5				257	
PROPYLBENZENE, N-	103-65-1	0.1	X			1	X			720	X	52	6	13100	15100	X	159	
PROPYLENE OXIDE	75-56-9			0.24	I	0.03	I	0.0000037	I	25	X	405000	1	13100	15000	X	34	
PYRENE	129-00-0	0.03	I							68000		0.132	1				393	0.07
PYRIDINE	110-86-1	0.001	I							0.0066	X	1000000	2	13100	15000	X	115	18.07
QUINOLINE	91-22-5			3	I					1,300		60000	1,3,5			X	238	12.65
QUIZALOFOP (ASSURE)	76578-14-8	0.009	I							580		0.3	2				220	
RDX	121-82-4	0.003	I	0.11	I					70		59.9	1,9				353	
RESORCINOL	108-46-3	2	TE							2		717000					280	
RONNEL	299-84-3	0.05	H							580		40	2				349	
SIMAZINE	122-34-9	0.005	I	0.12	H					110		5	5				225	
STRYCHNINE	57-24-9	0.0003	I							280		143	5				270	4.50
STYRENE	100-42-5	0.2	I			1	I			910	X	300	5	13100	15100	X	145	1.20
TEBUTHIURON	34014-18-1	0.07	I							620		2500	2				394	
TERBACIL	5902-51-2	0.013	I							53		710	2				396	
TERBUFOS	13071-79-9	0.000025	H							510		5	6			X	332	
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	0.0003	I							1,800		0.583	1,5,6,7				245	0.69
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.0000000007	D	130000	C	0.00000004	C	38	C	4300000		0.0000193	6				412	0.21
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.03	I	0.026	I			0.0000074	I	980	X	1100	1	13000	14600	X	131	3.79
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.02	I	0.2	I			0.000058	I	79	X	2860	2	13100	15100	X	147	0.56
TETRACHLOROETHYLENE (PCE)	127-18-4	0.006	I	0.0021	I	0.04	I	0.00000026	I	300	X	162	1,2,3,4,5	13100	15000	X	121	0.03
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	0.03	I							6200		183	6				288	0.69
TETRAETHYL LEAD	78-00-2	0.0000001	I							4900		0.8	5			X	202	4.50
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	0.0005	I							550		25	2			X	349	

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TETRAHYDROFURAN	109-99-9	0.9	I	0.0076	N	2	I	0.00000194	N	43	X	300000	1,6,7	13100	15100	X	66	
THIOFANOX	39196-18-4	0.0003	H							0.022		5200	9				280	
THIRAM	137-26-8	0.005	I							1000		30	4				339	
TOLUENE	108-88-3	0.08	I			5	I			130	X	532.4	1,2,3,4	13100	15000	X	111	9.01
TOLUIDINE, M-	108-44-1			0.016	S			0.000051	S	140		15030	6			X	203	
TOLUIDINE, O-	95-53-4			0.016	P			0.000051	C	410		15000	1,3,5			X	200	18.07
TOLUIDINE, P-	106-49-0	0.004	X	0.03	P					320		7410	1,2,3				200	
TOXAPHENE	8001-35-2	0.0004	M	1.1	I			0.00032	I	1500		3	2,4,5				432	
TRIALLATE	2303-17-5	0.013	I							2,000		4	5			X	343	
TRIBROMOMETHANE (BROMOFORM)	75-25-2	0.02	I	0.0079	I			0.0000011	I	130	X	3050	1,2,3,4	13100	15100	X	149	0.69
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	30	I			30	H			1,200	X	170	1	13100	15000	X	48	0.35
TRICHLOROACETIC ACID	76-03-9	0.02	I	0.07	I					20	X	1200000	2,3,5,9				196	
TRICHLOROBENZENE, 1,2,4-	120-82-1	0.01	I	0.029	P	0.002	P			1500		44.4	1,4,6,7			X	213	0.69
TRICHLOROBENZENE, 1,3,5-	108-70-3	0.006	M			0.002	S			3100		5.8	5				208	
TRICHLOROETHANE, 1,1,1-	71-55-6	2	I			5	I			100	X	1495	1,4,5,6	13100	15000	X	74	0.05
TRICHLOROETHANE, 1,1,2-	79-00-5	0.004	I	0.057	I	0.0002	X	0.000016	I	76	X	4420	1	13100	15100	X	114	0.03
TRICHLOROETHYLENE (TCE)	79-01-6	0.0005	I	0.05	I	0.002	I	0.000004	I	93	X	1100	1	13100	15000	X	87	0.02
TRICHLOROPHENOL, 2,4,5-	95-95-4	0.1	I							2400		1000	1,2,4				246	0.14
TRICHLOROPHENOL, 2,4,6-	88-06-2	0.001	P	0.011	I			0.0000031	I	1100		850	1,2,4,5				246	0.14
TRICHLOROPHENOXY-ACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	0.01	I							43		278	2,4,5				279	1.39
TRICHLOROPHENOXY-PROPIONIC ACID, 2,4,5-(2,4,5-TP) (SILVEX)	93-72-1	0.008	I							1700		140	2				353	
TRICHLOROPROPANE, 1,1,2-	598-77-6	0.005	I							24	X	2700	14	13100	15000	X	117	
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.004	I	30	I	0.0003	I			280	X	1896	1,4,6	13100	15100	X	157	0.35
TRICHLOROPROPENE, 1,2,3-	96-19-5	0.003	X			0.0003	P			190	X	2700	14	13100	15000	X	142	
TRIETHYLAMINE	121-44-8					0.007	I			51	X	55000	1,4	13100	15100	X	90	

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

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (μg/m^3)$^{-1}$*		*Koc*	*VOC?*	*Aqueous Sol (mg/L)*	*Aqueous Sol Reference[1]*	*TF Vol from Surface Soil*	*TF Vol from SubSurface Soil*	*Organic Liquid*	*Boiling Point (degrees C)*	*Degradation Coefficient (K)(yr^{-1})*
TRIETHYLENE GLYCOL	112-27-6	2	P							6		1000000	12			X	285	
TRIFLURALIN	1582-09-8	0.0075	I	0.0077	I					720		4	2,5,6,7				382	
TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6					0.007	P			2,200	X	56	1	13100	15000	X	169	4.50
TRIMETHYLBENZENE, 1,3,5-	108-67-8	0.01	X							660	X	48.9	1	13100	15100	X	165	
TRINITROGLYCEROL (NITROGLYCERIN)	55-63-0	0.0001	P	0.017	P					116	X	1800	2,3,5	13000	15000	X	190	18.07
TRINITROTOLUENE, 2,4,6-	118-96-7	0.0005	I	0.03	I					1		100	2				240	
VINYL ACETATE	108-05-4	1	H			0.2	I			2.8	X	20000	1	13200	15000	X	73	
VINYL BROMIDE (BROMOETHENE)	593-60-2					0.003	I	0.000032	H	150	X	4180	12	13100	15000	X	16	0.09
VINYL CHLORIDE	75-01-4	0.003	I	1.5	I	0.1	I	0.000009	I	10	X	2700	1	13200	15000	X	-13	0.09
WARFARIN	81-81-2	0.0003	I							910		17	4				356	4.50
XYLENES (TOTAL)	1330-20-7	0.2	I			0.1	I			350	X	175	13	13100	15000	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 Values
P = EPA Provisional Peer-Reviewed Toxicity Value
S = surrogate
T = TEF
TE = TERA ITER Peer-Reviewed Value
X = EPA Provisional Peer-Reviewed Toxicity Value Appendix

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

Regulated Substance	*CAS*	*RfDo (mg/kg-d)*		*CSFo (mg/kg-d)$^{-1}$*		*RfCi (mg/m^3)*		*IUR (ug/m^3)$^{-1}$*		*Kd*
ALUMINUM	7429-90-5	1	P			0.005	P			9.9
ANTIMONY	7440-36-0	0.0004	I							45
ARSENIC	7440-38-2	0.0003	I	1.5	I	0.000015	C	0.0043	I	29
BARIUM AND COMPOUNDS	7440-39-3	0.2	I			0.0005	H			41
BERYLLIUM	7440-41-7	0.002	I	8.4	C	0.00002	I	0.0024	I	790
BORON AND COMPOUNDS	7440-42-8	0.2	I			0.02	H			3
CADMIUM	7440-43-9	0.0005	I	15	C	0.00001	D	0.0018	I	75
CHROMIUM III	16065-83-1	1.5	I							1,800,000
CHROMIUM VI	18540-29-9	0.003	I	0.42	C	0.000008	I	0.084	I	19
COBALT	7440-48-4	0.0003	P			0.000006	P	0.009	P	45
COPPER	7440-50-8	0.037	H							430
CYANIDE, FREE	57-12-5	0.0006	I			0.0008	I			9.9
FLUORIDE	16984-48-8	0.04	C			0.013	C			
IRON	7439-89-6	0.7	P							25
LEAD	7439-92-1			0.0085	C			0.000012	C	900
LITHIUM	7439-93-2	0.002	P							300
MANGANESE	7439-96-5	0.047	I			0.00005	I			65
MERCURY	7439-97-6	0.00016	C			0.0003	I			52
MOLYBDENUM	7439-98-7	0.005	I							20
NICKEL	7440-02-0	0.02	I			0.00009	D	0.00024	Is	65
NITRATE NITROGEN	14797-55-8	1.6	I							
NITRITE NITROGEN	14797-65-0	0.1	I							
PERCHLORATE	7790-98-9	0.0007	I							0
SELENIUM	7782-49-2	0.005	I			0.02	C			5
SILVER	7440-22-4	0.005	I							8.3
STRONTIUM	7440-24-6	0.06	I							
THALLIUM	7440-28-0	0.00001	X							71
TIN	7440-31-5	0.6	H							250
VANADIUM	7440-62-2	0.00007	P			0.0001	D			1,000
ZINC	7440-66-6	0.3	I							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)
P = EPA Provisional Peer-Reviewed Toxicity Value
s = surrogate

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*[1] (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
BHC, DELTA	319-86-8	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
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
DECABORANE	17702-41-9	5	100	100	100	0.5
DIETHYLAMINE	109-89-7	5	100	100	100	0.5
DIGLYCIDYL ETHER (DGE)	2238-07-5	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
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
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
ISOPHORONE DIISOCYANATE	4098-71-9	5	100	100	100	0.5
ISOSAFROLE	120-58-1	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 ISOAMYL KETONE	110-12-3	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

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*[1] *(mg/kg)*
				Surface Soil (mg/kg) 0-2 feet	*Subsurface Soil (mg/kg) 2-15 feet*	
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
PERCHLOROMETHYL MERCAPTAN	594-42-3	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
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
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
TETRANITROMETHANE	509-14-8	5	100	100	100	0.5
THIONAZIN	297-97-2	5	100	100	100	0.5
TRIETHYLPHOSPHOROTHIOATE, O,O,O-	126-68-1	5	100	100	100	0.5

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

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