



**CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)
HUMAN AND ECOLOGICAL RISK OFFICE (HERO)**

HUMAN HEALTH RISK ASSESSMENT (HHRA) NOTE

HERO HHRA NOTE NUMBER: 3, DTSC-modified Screening Levels (DTSC-SLs)

RELEASE DATE: April 2019

ISSUE: DTSC has developed modified screening levels based on the U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for use in the human health risk assessment process at hazardous waste sites and permitted facilities. HHRA Note 3 is periodically updated and users should always check the DTSC website for the most recent versions, including other HHRA Notes.^a

SUMMARY

In 2008, the USEPA released RSLs to replace the Preliminary Remediation Goals (PRGs) formerly available from several USEPA Regional Headquarters. HERO reviewed the differences in methodology and RSL concentrations to develop a methodology to incorporate the RSLs into HERO human health risk assessment consultation and review. In addition to updated toxicity criteria, several differences in methodology resulted in a subset of RSLs substantially higher (less protective) than the original PRGs, and resulted in HERO issuing recommendations for use of specific screening concentrations. HERO's review of the RSLs had been conducted in two phases: Phase I (soil and tap water screening levels) and Phase II (air screening levels). Initial versions of HHRA Note 3 (November 2009; May 2011) addressed a Phase I review only. A Phase II review was incorporated into the 21 May 2013 iteration of HHRA Note 3, and an additional update released 14 July 2014. Since July 2014, DTSC is now providing regular updates to the DTSC-SLs, tracking the updates to the USEPA RSL tables soon after their release. HHRA Note 3 was last updated in June 2018.

The present revision of HHRA Note 3 incorporates HERO recommendations based on adoption of the *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* rule (hereafter "Toxicity Criteria Rule")^b and review of the

^a <https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

^b See HHRA Note 10, available at: <https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

November 2018 release of the RSL tables. Exposure factors used in this HHRA Note 3 are consistent with the April 2019 update to HERO HHRA Note 1^c, which incorporates much of the 6 February 2014 USEPA memorandum “*Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors*. OSWER Directive 9200.1-120.”

HERO has prepared reference Tables 1, 2, and 3 that provide recommended screening levels for compounds in soil, tap water, and air, respectively. **In accordance with the Toxicity Criteria Rule, the DTSC-SLs provided in Note 3 should be used in preference to USEPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities. USEPA RSLs should continue to be used for contaminants for which a DTSC-SL value in Note 3 is not available. Note that the DTSC-SLs are derived at a target risk level of 1×10^{-6} and a target hazard quotient value of 1.** In addition, specific recommendations for several contaminants are discussed. Alternatively, in consultation with HERO, the USEPA on-line screening calculator can be used to calculate site-specific values using the more protective of Cal/EPA and USEPA toxicity criteria and applying assumptions consistent with HERO recommendations (e.g., route-to-route extrapolation between the oral and inhalation exposure pathways for inhalation toxicity criteria; dermal exposure to inorganic chemicals; and California-specific exposure factors).

HERO’s development of DTSC-SLs for air (Table 3) included route extrapolation for chemicals lacking an inhalation toxicity value but which are identified as volatile by the USEPA RSL methodology^d, or by DTSC’s vapor intrusion guidance and accompanying screening models for vapor intrusion. The Toxicity Criteria Rule and the USEPA Superfund hierarchy of toxicity-criteria sources provides oral toxicity criteria for more chemicals than California agency sources. Consequently, for volatile compounds without inhalation toxicity criteria, most extrapolations to derive DTSC-SLs for air are based on the USEPA oral toxicity criteria. Toxicity criteria and sources are summarized in Tables 1, 2, or 3 for those compounds with a recommended DTSC-SL; details on toxicity criteria references are provided in HHRA Note 10.^e

^c <https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

^d In the June 2015 releases of the RSL tables, USEPA included a supplemental defining characteristic of volatile compounds. A long-standing criterion for volatility is a Henry’s law constant greater than 1×10^{-5} (atmosphere-cubic meter) per mole. The supplemental criterion is a vapor pressure greater than 1 millimeter of mercury. This criterion added approximately 100 chemicals into the class of volatile chemicals.

^e <https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

WHAT'S NEW (April 2019)

- On 4 September 2018, the *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* rule (“Toxicity Criteria Rule”) was approved by the State of California Office of Administrative Law and became effective immediately.^f The Rule requires human health risk assessments, risk-based screening levels and remediation goals prepared pursuant to the Hazardous Substances Account Act (Health and Safety Code [HSC] §25300 et seq., “Chapter 6.8”) to be based on toxicity criteria from a specified hierarchy of sources: promulgated criteria explicitly identified in the Toxicity Criteria Rule; then, promulgated criteria listed in the USEPA’s *Integrated Risk Information System* (IRIS) database; and then, recommended criteria from “other sources” that require approval by the HERO Supervising Toxicologist (HHRA Note 10 provides approved toxicity criteria for the roster of USEPA RSL analytes). Previous versions of HHRA Note 3 had been consistent with the general intentions behind development of the Toxicity Criteria Rule, but HHRA Note 3 now fully implements the Toxicity Criteria Rule hierarchy.
- For compliance with the Toxicity Criteria Rule, DTSC-SL calculations **no longer employ a “three-fold more stringent than the RSL” threshold** for soil and tap water. When coupled with exposure-factor and toxicity-criteria changes, there are now approximately twice the number of tap water analytes (now totaling 154), and considerably more soil analytes (now totaling 561) with DTSC-SL values when compared to the June 2018 DTSC-SLs. The number of ambient air analytes is approximately the same as previous, but with changes in the overall roster due to updates in toxicity criteria.
- As a continuation of previous iterations of HHRA Note 3, HERO has reviewed the November 2018 RSL table updates (see USEPA’s “What’s New” webpage^g), as well as other relevant information, including the Toxicity Criteria Rule and other updated Cal/EPA criteria. This revised HHRA Note 3 incorporates our updated recommendations for screening levels, current as of April 2019.

^f <https://www.dtsc.ca.gov/LawsRegsPolicies/Regs/Toxicity-Criteria-for-Human-Health-Risk-Assessment.cfm>

^g <http://www.epa.gov/risk/regional-screening-table-whats-new>

- Consistent with HHRA Note 1, the values for child skin surface area for soil contact and the adult and child skin surface areas for the bathing/showering scenario were updated to be consistent with the exposure parameters used to calculate the USEPA RSLs and current USEPA guidance.
- Changes from the June 2018 HHRA Note 3 include:
 - DTSC-SL analytes in soil: based on the elimination of the three-fold threshold, there are considerably more DTSC-SL values than prior versions of HHRA Note 3, and now total 561 analytes. A majority of the analytes are identified based on the commercial/industrial exposure scenario due to differences between DTSC and USEPA in the skin surface-area value. However, there are also revisions due to toxicity criteria updates, and other changes and corrections.
 - DTSC-SL analytes in tap water: based on the elimination of the three-fold threshold, toxicity criteria updates, and exposure-parameter changes, there are now 154 analytes with a DTSC-SL value, compared to 77 in the June 2018 HHRA Note 3.
 - DTSC-SL analytes in ambient air: there are now 152 analytes with an ambient-air DTSC-SL; formerly there were 160, with 16 deletions and 8 additions as a result of toxicity criteria updates, and other changes and corrections.
- As a reminder, chemicals are listed in alpha-numeric order to eliminate complexities in tabular formatting. HERO recommends the use of CAS numbers to avoid problems with nomenclature and synonyms.

HHRA Note 3

CONTACT PERSON:

Edward A. Fendick, Ph.D., Staff Toxicologist
916.255.6555
Edward.Fendick@dtsc.ca.gov

BACKGROUND

HERO has a long history of working with the USEPA Region 9 office to integrate California-specific risk assessment concerns into the Preliminary Remediation Goal (PRG) listing and the PRG-screening risk assessment process. One example of the collaboration was the inclusion of 'Cal-modified' values into the USEPA Region 9 PRG list from 2004. In 2008, USEPA released a single set of RSL tables for national use and which replaced the USEPA Region 9 PRGs (and eliminated Cal-modified values). Since then, new USEPA RSLs have been released on a semiannual basis (Spring and Fall), and have included substantial modifications to the RSL methodology and toxicity value updates. Specific details of changes in the USEPA RSL methodology are documented in the "What's New" webpage section of the USEPA website.^h

HERO continues the ongoing process of reviewing new values and methodologies, and their application in screening risk assessment. HERO generally has incorporated the USEPA RSL methodological changes, except as noted later in this text. For example, the dermal exposure pathway has been incorporated into the tap water RSL calculation. There now are 820 elements, compounds and mixtures listed in the RSL tables. A DTSC-SL value is derived for at least one combination of medium, receptor, and endpoint for 565 unique elements, compounds, and mixtures in this iteration of HHRA Note 3.

USES OF RSLs and DTSC-SLs

Section 3.0 of the USEPA RSL Users Guideⁱ lists the following uses for the RSLs:

"These concentrations can be used for:

- Prioritizing multiple sites or operable units or areas of concern within a facility or exposure units*
- Setting risk-based detection limits for contaminants of potential concern (COPCs)*
- Focusing future site investigation and risk assessment efforts (e.g., selecting COPCs for the baseline risk assessment)*
- Identifying contamination which may warrant cleanup*
- Identifying sites, or portions of sites, which warrant no further action or investigation*
- Initial cleanup goals when site-specific data are lacking"*

^h <http://www.epa.gov/risk/regional-screening-table-whats-new>

ⁱ <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide>

RSLs are NOT to be used to perform a human health Baseline Risk Assessment (BRA), but to assist in the tasks preceding a human health BRA.

In the past, the USEPA Region 9 PRGs had been used by HERO primarily at open, closing, and formerly-used Department of Defense (DoD) sites. Screening risk assessments at some non-military sites have in the past used different processes. However, the DTSC-SLs included in this report are being used, and are intended for use, at any DTSC site.

HHRA Note Number 4^j and the Preliminary Endangerment Assessment (PEA) Guidance Manual^k provide the most recent guidance for use of screening levels in risk assessments. In general, HERO recommends compliance with the basic approach and principles outlined in Note 4. This includes the provision that DTSC-SLs and USEPA RSLs are used for screening sites as a whole, not for “screening out” individual chemicals. Ratios of the concentration of a particular chemical in a medium (e.g., soil, water, or air) to its risk-based concentration are calculated and the ratio is summed across all chemicals and media to estimate a total risk and hazard for the site. Prior to making risk management decisions based on the results of such an evaluation, it is critical that limitations associated with the use of DTSC-SLs and USEPA RSLs be carefully noted and understood. For example, the derivation of the DTSC-SLs and USEPA RSLs did not include an evaluation of the intrusion of vapors from the subsurface to indoor air (see below for a more detailed discussion of exposure pathways). The intrusion of volatile compounds from soil or groundwater to indoor air is a potentially major exposure pathway and should be evaluated. Ecological receptors were not considered in the derivation of DTSC-SLs and USEPA RSLs. The DTSC-SLs and USEPA RSLs apply only to human receptor exposure scenarios and are NOT necessarily protective of ecological receptors. The need for an ecological risk assessment should be evaluated separately.

CONCEPTUAL SITE MODEL AND INCLUDED EXPOSURE PATHWAYS

Before conducting a screening level human health risk assessment, development of a site-specific conceptual site model (CSM) or site exposure model is critical to ensure all appropriate receptors and exposure pathways are addressed by the chosen screening levels.

^j <https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

^k https://dtsc.ca.gov/PublicationsForms/upload/PEA_Guidance_Manual.pdf

The risk-based residential and industrial soil screening levels consider several exposure pathways (ingestion, inhalation of particles and volatile chemicals, and dermal absorption) from each of three environmental media (soil, tap water, and air).

The tap water screening levels are based on assumed domestic use of water via ingestion from drinking, inhalation of volatile chemicals generated during household use (e.g., showering, dish washing), and dermal exposure.

Although the soil and tap water screening levels account for many typical exposure pathways, they do not account for the following potential exposure pathways (for example, as discussed in the RSL User's Guide¹):

- The residential and industrial soil RSLs do not account for exposure to indoor air vapors due to intrusion of subsurface soil gas emissions; ingestion via uptake of plants (home-grown fruits and vegetables), meat, or dairy products; or inhalation of particles (fugitive dust) generated by activities which elevate particulate emissions such as truck traffic and use of heavy equipment.
- Pathways not considered in the calculation of the tap water RSLs include subsurface vapor intrusion to indoor air from volatile compounds present in groundwater and transfer of contaminants in surface water or groundwater to aquatic organisms or terrestrial plants with subsequent ingestion by humans. The RSL on-line calculator and User's Guide do however include equations which can be used to calculate screening level fish concentrations assuming human consumption of fish. These equations do not address impacts to fish; but rather, human consumption of fish which may be contaminated. The RSL on-line calculator and User's Guide also provide equations which can be used to evaluate recreational receptor exposures to soil/sediment and surface water.

If pathways excluded from the derivation of the soil and tap water screening levels are anticipated at the site (e.g., home-grown produce consumption or excessive dust generation), an RSL- or DTSC-SL-based screening level risk evaluation may significantly underestimate risk. In addition, if there are exposure scenarios other than residential and industrial land use, a screening level risk evaluation using RSLs or DTSC-SLs may not be appropriate (e.g., sites in which trench workers may be exposed to shallow groundwater). In such cases, the evaluation of risk to human receptors at the site could proceed directly to the baseline human health risk assessment process. In other instances, the screening risk assessment may overestimate risk but in these cases, a baseline human health risk assessment will likely be necessary for site-specific risk-management decisions. For reference, HERO has compiled a summary of

¹ <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide>

recommended exposure factors which may be used as default values in baseline human health risk assessments for California hazardous waste sites and permitted facilities, DTSC HHRA Note 1, which is mostly consistent with the recent changes to the USEPA RSL methodology.

Additional Considerations Regarding Exposure for the Industrial Scenario

Evaluations of the industrial scenario using only the soil screening levels do not account for the following pathways: all exposures to groundwater (e.g., consumption as drinking water, vapor intrusion from ground water, or dermal contact); exposure via vapor intrusion to indoor air; exposure to contaminated surface water, and inhalation of particulates generated by activities which increase particulate levels such as truck traffic and use of heavy equipment. If these exposure pathways are significant at a site, screening risk assessment using soil screening levels is generally insufficient. In some cases, it may be possible, with the cooperation of the DTSC toxicologist, to incorporate the risk from the vapor intrusion pathway into the screening risk assessment by adding the risk from this pathway into the risk estimated from the use of the soil screening levels.

The tap water RSLs and DTSC-SLs are calculated using residential land use assumptions. As such, these screening levels are not reflective of potential industrial exposures and may over- or underestimate exposures via the water pathways (e.g., ingestion and dermal exposures to contaminated water, and inhalation exposure to volatile contaminants emitted into workplace air from contaminated water).

METHODOLOGY FOR THE DTSC-SLs

The process for derivation of DTSC-SLs is based on the identical computational algorithms used to derive USEPA's RSLs. To validate the process, a series of spreadsheet worksheets were populated with the RSL algorithms, USEPA exposure-parameter values, USEPA toxicity criteria, and the RSL analyte roster. Values derived in these workbooks were compared to the USEPA values downloaded from the USEPA website. Computed values matched the USEPA values for soil, tap water, and air after allowing for slight differences attributable to treatment of significant digits and rounding.

DTSC-SLs were derived by populating copies of the aforementioned spreadsheet workbooks with toxicity criteria consistent with the Toxicity Criteria Rule, and with California exposure factors and DTSC-specific methods. California exposure factors are those listed in HHRA Note 1 or the PEA Guidance Manual, and many values match

those used by USEPA. Toxicity criteria were obtained based on the Toxicity Criteria Rule, as described next.

Toxicity Criteria Rule

On 4 September 2018, the *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* rule (“Toxicity Criteria Rule”) was approved by the State of California Office of Administrative Law and became effective immediately.^m The Rule requires human health risk assessments, risk-based screening levels, and remediation goals prepared pursuant to the Hazardous Substances Account Act (Health and Safety Code [HSC] §25300 et seq., “Chapter 6.8”) to be based on toxicity criteria from a specified hierarchy of sources. The Toxicity Criteria Rule’s Section (§) 69021 provides the hierarchy:

- 1) §69021(a) - toxicity criteria for a given contaminant listed in Appendix I Tables A and B of the Rule (“promulgated criteria”);
- 2) §69021(b) - toxicity criteria for contaminants that are not listed in the Rule’s Appendix I but are listed in the current USEPA *Integrated Risk Information System* (IRIS) database (“promulgated criteria”); and
- 3) §69021(c) - toxicity values for a given contaminant from “other sources” including but not limited to: the Office of Environmental Health Hazard Assessment (OEHHA) toxicity values that are not listed in the Rule’s Appendix I, USEPA Provisional Peer Reviewed Toxicity Values (PPRTVs), Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs), USEPA PPRTV Appendix Screening Toxicity Values, USEPA Superfund Health Effects Assessment Summary Table (HEAST) values, and other additional sources (“recommended criteria”). The use of the toxicity criteria under §69021(c) requires approval from the HERO Supervising Toxicologist prior to use.

HHRA Note 10 provides additional detail on the application of the Toxicity Criteria Rule in human-health risk assessments, and in derivation of screening levels and remedial goals. Notably regarding HHRA Note 3, Table 1 of HHRA Note 10 provides the recommended, approved, toxicity criteria for the roster of analytes evaluated in the USEPA RSLs. The HHRA Note 10 Table 1 values are incorporated into HHRA Note 3’s derivation of the DTSC-SLs.

^m <https://www.dtsc.ca.gov/LawsRegsPolicies/Regs/Toxicity-Criteria-for-Human-Health-Risk-Assessment.cfm>

In consideration of evolving methods for mutagenic carcinogens and interagency consistency, calculations for compounds identified as having a mutagenic mode of action (MMOA) utilized age-dependent adjustment factors (ADAFs) in accordance with the methods employed by the USEPA in their RSL tables. Trichloroethene (TCE) was evaluated using the combined MMOA and non-mutagen approaches as developed in the USEPA RSL methodology. Vinyl chloride was evaluated using the same vinyl-chloride-specific methodology used in the USEPA RSL tables, although the vinyl chloride methodology may be under review. Lastly and as discussed previously, for purposes of screening air contaminants, HERO recommends the use of route extrapolation—converting an oral reference dose or slope factor to an inhalation reference concentration or unit-risk factor—when an inhalation-specific toxicity value is not available.

DTSC-SLs were calculated for the entire roster of RSL analytes and several additional analytes. The final roster of soil and tap water DTSC-SLs are provided in Tables 1 and 2, respectively; air screening levels are listed in Table 3.

SITE SCREENING – SOIL, TAP WATER, and AIR CONTAMINANTS

As discussed previously, HERO reviewed the soil, tap water, and air RSLs in a phased approach. The results presented in this version provide recommendations on the use of screening levels for soil, tap water, and air, under residential and industrial/commercial land uses.

Since May 2013, USEPA has provided two sets of tables, with RSLs based on target hazard quotients (THQ) of 1.0 and 0.1. The rationale for using a THQ of 0.1 for screening is that if 10 chemicals were at a site and all narrowly passed a screening at $THQ=1.0$, the resulting total HI could be 10. In general, HERO does not recommend use of screening levels based on a THQ of 0.1. Instead, screening levels based on a target HQ of 1 should be used, and cumulative noncancer hazard should be summed across all site-related contaminants, media, and exposure pathways. As of November 2017, the RSL calculator website now includes user-selectable options for the target risk and the target hazard quotient. **The DTSC-SLs are derived at a target risk level of 1×10^{-6} and a target hazard quotient value of 1.** All discussion below relies on a target risk of 1×10^{-6} or a target hazard quotient of 1.

Soil and Tap Water

While it is possible to use the USEPA website's on-line RSL calculatorⁿ and employ the California-recommended toxicity criteria and exposure factors for each exposure pathway to derive screening levels, this would be a laborious process for DTSC managers and staff, Responsible Parties, and contractors. To address this difficulty, HERO has combined the USEPA RSL methodology and values with a DTSC-specific methodology and values for all compounds in the USEPA RSL roster. HERO then identified elements, compounds, and mixtures in which the soil, tap water, or ambient air DTSC-SL value was less (more stringent) than the corresponding USEPA RSL value.

Users of the screening levels should be aware that the values are strictly risk-based computed concentrations. The DTSC-SLs and the tabular versions of the USEPA RSL tables do not consider external practical criteria such as analytical detection limits, naturally occurring concentrations, or physical limitations such as soil saturation (although relevant notations are provided in the USEPA RSL tables). For example, screening levels for some chemicals can exceed liquid saturation conditions (i.e., pure analyte in the soil pore space) or can exceed reasonable physical conditions in soil such as concentrations greater than 100,000 ppm (10% by weight or more). Multiple DTSC-SLs exceeded soil-saturation concentrations or a 10% by weight threshold and these are indicated in Table 1 by bold text and italicizing, respectively. Note that the online USEPA RSL calculator has a user-selectable site-specific option to substitute saturation or threshold concentrations when the calculated RSL exceeds those physical limitations. For tap water, risk-based concentrations occasionally exceed maximum contaminant level (MCL) regulatory criteria; see item #5 in the subsequent "Discussion and Recommendations for Specific Contaminants" section.

Lastly, if volatile contaminants are present at a site, soil gas data are required to evaluate the vapor intrusion to indoor air pathway. This allows a more comprehensive evaluation because the soil and tap water screening levels do not include the vapor intrusion pathway, which is often the risk driver.

Air

Subsurface vapor intrusion to indoor air from volatile compounds in soil or groundwater is a potentially major exposure pathway. The air screening levels address residential

ⁿ http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

and commercial/industrial exposure scenarios, and may be used for screening contaminants in indoor air. The air screening levels for volatile chemicals also have potential applications for screening soil gas data when used in concert with an appropriate attenuation factor as described in DTSC's 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (2011 VIG). DTSC-recommended default attenuation factors for preliminary screening evaluations can be found in Table 2 of DTSC's 2011 VIG. DTSC also recommends that screening assessments evaluate the default attenuation factors of 0.03 for sub-slab soil gas and "near-source" exterior soil gas, released in 2015 by USEPA.^o For detailed recommendations on the vapor intrusion to indoor air pathway and evaluation of soil gas and indoor air data, please consult DTSC's 2011 VIG, or contact the DTSC site toxicologist to ensure appropriate use of air screening levels on a site-specific basis.

- To facilitate site screening, HERO herein provides recommendations on use of air screening levels for chemicals identified as volatile in the USEPA RSL tables, DTSC's VIG, or DTSC's screening models for vapor intrusion, and non-volatile compounds with inhalation-based toxicity criteria (no route extrapolation). HERO's derivation is based on a comparison of the inhalation toxicity criteria used to derive the USEPA's air RSLs relative to California toxicity criteria and HERO recommendations (e.g., route-to-route extrapolation for volatile chemicals). As noted previously, screening levels for air contaminants are the more stringent of USEPA or DTSC screening values.
- For the 109 volatile chemicals that lacked inhalation toxicity criteria, HERO extrapolated oral-exposure toxicity criteria to derive inhalation toxicity criteria for use in calculating air screening levels.

DISCUSSION AND RECOMMENDATIONS FOR SPECIFIC CONTAMINANTS

1. **Lead (Soil).** In 2007, Cal/EPA OEHHA developed a new toxicity evaluation of lead, replacing the 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) threshold blood lead concentration with a source-specific "benchmark change" of 1 $\mu\text{g}/\text{dL}$.^p One $\mu\text{g}/\text{dL}$ is the estimated incremental increase in children's blood lead that would reduce Intelligence Quotient (IQ) by up to 1 point. Considering the updated Cal/EPA lead toxicity criterion, as well as the need for revision to ensure that the model is adequately

^o <https://www.epa.gov/sites/production/files/2015-09/documents/oswer-vapor-intrusion-technical-guide-final.pdf>

^p <http://oehha.ca.gov/media/downloads/crn/pbghv041307.pdf>

protective of women of child-bearing age, HERO developed a new version of the DTSC LEAD RISK ASSESSMENT SPREADSHEET (LeadSpread 8; 2011).⁹

Worksheets 1 and 2 of the LeadSpread 8 file include PRG90 calculations for residential and industrial land use scenarios, respectively. The PRG90 values represent lead concentrations in soil that will result in a 90th percentile estimate of a 1 µg/dl increase in blood lead in a child or the fetus of a pregnant adult worker. While DTSC has historically used the 99th percentile estimate of blood lead concentration in the population, HERO considers the 90th percentile of the distribution appropriate for use in evaluating lead exposures with the new health-protective criterion of a 1 µg/dL *incremental increase* in blood lead. The previous benchmark targeted the total blood lead concentration, which also included contributions of lead from background sources.

HERO applies the risk-based soil lead concentrations in a residential use (i.e., unrestricted use) scenario as an Exposure Point Concentration (EPC). A 95-percent upper confidence limit on the arithmetic mean (95% UCL) calculated to be 80 mg/kg or less for residential soil lead, or a 95% UCL of 320 mg/kg or less for industrial soil lead, would be protective of children and women of child-bearing ages, respectively. With regard to assessment of lead risk and evaluating cleanup options, if sufficient data are available, HERO recommends calculating the 95% UCL lead concentration for each exposure area. If individual samples exceed the PRG90 soil lead concentration, the exposure area as a whole might not exceed the PRG90 as long as the 95% UCL itself is below ~80 mg/kg for residential and ~320 mg/kg for industrial/commercial, and assuming hot spots are not present. If “hot spots” (i.e., geographically collocated areas of elevated concentration), or “outliers” (i.e., individual samples with elevated concentrations) are present, they must be addressed separately.

For initial site screening where data are insufficient to calculate a 95% UCL, comparison of the maximum detected concentration to the PRG90s would be appropriate. If individual sample results exceed the PRG90s, depending on site-specific conditions and sampling results, additional investigation, evaluation, and potentially remediation may be warranted to address concerns about lead exposure.

It is important to note that background exposures to lead, and media other than soil which may be impacted by lead are not considered in LeadSpread8. If lead is

⁹ <http://www.dtsc.ca.gov/AssessingRisk/LeadSpread8.cfm>

present at levels above background in media other than soil (e.g., water, air), or if the home grown produce pathway is anticipated at the site, please contact the HERO toxicologist. DTSC's LeadSpread model is periodically updated; users should check the DTSC website for the latest version.^r

2. **Cadmium (Soil).** The cadmium soil and tap water RSLs based on noncancer effects were calculated using the USEPA Integrated Risk Information System (IRIS) oral reference dose (RfDo) for food (1 µg/kg-day) and water (0.5 µg/kg-day), respectively. Previous versions of HHRA Note 3 utilized alternative toxicity criteria to derive DTSC-SLs; noncancer screening levels for soil, compliant with the Toxicity Criteria Rule, are now derived to be the USEPA RSL (71 mg/kg) for residential soil and a DTSC-SL of 780 mg/kg for commercial/industrial soil.

Please note that the DTSC-modified soil screening levels presented herein are undergoing re-evaluation. Based on newer data and potential updates to cadmium toxicity criteria, HERO's review of relevant information for this contaminant is ongoing and we plan to derive updated DTSC-modified screening levels for soil in the future. At this time, we have not derived tap water screening levels for cadmium, however, we may do so as part of a future revision. Please consult with the DTSC toxicologist for sites where cadmium is a site-related contaminant in soil or water to ensure an up-to-date analysis for site conditions.

3. **Beryllium and Beryllium Compounds (Soil).** Cal/EPA toxicity criteria for beryllium differ from current USEPA values in some regards. For cancer, there are no oral slope factors from either USEPA or Cal/EPA sources, while the USEPA and Cal/EPA's inhalation unit risks (IURs) for beryllium and beryllium oxide are the same. Cal/EPA also has a separate IUR for beryllium sulfate (8.6E-1 per µg/m³), but the Toxicity Criteria Rule requires use of the IRIS IUR for beryllium and compounds (2.4E-3 per µg/m³). For noncancer, the USEPA RfDo (2E-3 mg/kg-day) is 10-fold higher than the noncancer toxicity criterion used by Cal/EPA OEHHA to derive the PHG for beryllium and beryllium compounds (2E-4 mg/kg-day). The difference is based on agency differences in dose metrics and uncertainty adjustments applied to the same underlying primary research. In addition, the USEPA inhalation reference concentration (RfC) for beryllium and compounds (2E-2 µg/m³) is higher than the OEHHA chronic inhalation reference level (REL) for beryllium and compounds (7E-3 µg/m³) because OEHHA weighted the key study's critical effect as more severe than USEPA did for the same study. Based on the Toxicity Criteria Rule,

^r <http://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>

the OEHHA PHG, OEHHA REL, and IRIS IUR must be used in derivation of the screening levels (although the OEHHA IUR is identical in value to the IRIS IUR, the OEHHA IUR is not specified in the Toxicity Criteria Rule which then defaults to IRIS).

For beryllium and compounds, HERO applied the IRIS IUR ($2.4\text{E-}3$ per $\mu\text{g}/\text{m}^3$), the RfDo-equivalent from the PHG document ($2\text{E-}4$ mg/kg-day), the chronic REL ($7\text{E-}3$ $\mu\text{g}/\text{m}^3$), and DTSC default dermal exposure parameters (including GIABS=1) to derive DTSC-modified screening levels for soil. The DTSC-modified screening levels based on noncancer effects were calculated to be 16 mg/kg and 230 mg/kg for residential and industrial land use, respectively. For cancer, the DTSC-modified screening levels for beryllium and compounds in soil were calculated to be 1600 mg/kg and 6900 mg/kg under the residential and industrial land use scenarios, respectively, concentrations identical to the USEPA RSL derivation.

For beryllium sulfate, HERO previously applied the Cal/EPA inhalation unit risk ($8.6\text{E-}1$ per $\mu\text{g}/\text{m}^3$) for cancer to derive DTSC-modified screening levels for soil of 4.4 mg/kg and 19 mg/kg for residential and industrial land uses, respectively. However, with adoption of the Toxicity Criteria Rule, the computations now use the IRIS inhalation unit risk ($2.4\text{E-}3$ per $\mu\text{g}/\text{m}^3$) for cancer to derive screening levels for soil of 1600 mg/kg and 6,900 mg/kg, which is equivalent to the USEPA RSL values. For noncancer endpoints, the DTSC-SL and USEPA RSL for beryllium sulfate and beryllium and compounds in soil are identical. Like cadmium above, at this time we have not derived tap water screening levels for beryllium sulfate. Please consult with the DTSC toxicologist for sites where beryllium is a site-related contaminant in water.

4. **Arsenic (Soil).** USEPA incorporates a relative bioavailability factor (RBA) into the RSL calculations for screening level concentrations for ingestion of soil-borne arsenic (a dimensionless value of 0.6, in contrast to a default value of 1.0 for all other compounds). HERO supports the use of this default RBA value for the adjustment of the ingestion of arsenic bound to soils and the DTSC-SL reflects this modification to the risk calculation. HERO has prepared HHRA Note 6 that provides recommendations for completing site-specific evaluations of the arsenic RBA in site soils.^s Please consult with the DTSC toxicologist for sites where soil-borne arsenic is a site-related contaminant for the current recommendations for arsenic bioavailability. Note that risk-based screening-level concentrations of arsenic in soil are often below naturally occurring (background) concentrations. Consequently, HERO strongly recommends consideration of site-specific background concentrations of inorganic constituents.

^s <https://www.dtsc.ca.gov/AssessingRisk/humanrisk2.cfm>

5. **Screening Levels and MCLs.** As noted previously, the DTSC-SL and USEPA RSL values are derived strictly as risk-based concentrations—mathematical constructs of the exposure calculation algorithms—that may be independent of certain practical constraints (e.g., solubility, detection limits, or background concentrations). Additionally, there may be risk management considerations (such as regulatory thresholds) that affect decision-making for contaminated sites outside of the risk assessment process. Maximum Contaminant Levels (MCLs) are enforceable regulatory criteria for protection of the drinking water resource and in several examples, are at concentrations lower than risk-based screening levels. Table 4 presents the roster of analytes for which a DTSC-SL or USEPA RSL screening value exceeds an MCL regulatory criterion. These MCL criteria may need additional consideration during scoping for remedial or environmental investigations.

TABULAR RESULTS

HERO has calculated soil and tap water DTSC-SLs for all chemicals on the USEPA RSL roster and several additional analytes. The tabular results list the DTSC-SLs when the DTSC-SL is more stringent than the corresponding USEPA RSL; USEPA RSL values are also provided for completeness for the other combinations of receptor and endpoint when the USEPA RSL was more stringent. Screening concentrations for air were derived for all of the volatile chemicals and several other airborne contaminants, and a DTSC-SL is listed when the value is more stringent than the corresponding USEPA RSL value.

Supporting documentation of the computations for the roster of analytes with a DTSC-SL are provided in separate media-specific Appendices A through C (soil, tap water, and air, respectively). The appendices present the screening levels side-by-side, based on the USEPA and the DTSC-modified approaches. These are available for download from the DTSC website. These documentation files provide the exposure factors, exposure algorithms, toxicity criteria, and computed screening-level concentrations for soil, tap water, and air, for exposures via ingestion, dermal contact, and inhalation.

Alternatively, the USEPA on-line screening calculator available at the USEPA RSL website^t can be used to calculate site-specific values using the more protective of Cal/EPA or USEPA toxicity criteria, applying assumptions consistent with HERO

^t https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

recommendations (e.g., route-to-route extrapolation between the oral and inhalation exposure pathways where no toxicity value is available for the inhalation route of exposure but an oral toxicity value is available), and site-specific values as agreed upon in consultation with HERO.

Table 1, Screening Levels for Soil

Table 1 presents DTSC-modified screening values for soil that are more stringent than the corresponding USEPA value, and includes the corresponding toxicity factors. For this roster of analytes (i.e., with at least one DTSC-SL), available USEPA RSL values are also provided for receptors or endpoints that lack a designated DTSC-SL, for table completeness. A Microsoft Excel® version of Table 1 is available for download from the DTSC website.

Table 2, Screening Levels for Tap Water

Table 2 presents DTSC-modified screening values for tap water that are more stringent than the corresponding USEPA value, and includes the corresponding toxicity factors. For this roster of analytes (i.e., with at least one DTSC-SL), available USEPA RSL values are also provided for receptors or endpoints that lack a designated DTSC-SL, for table completeness. A Microsoft Excel® version of Table 2 is available for download from the DTSC website.

Table 3, Screening Levels for Air

Table 3 presents DTSC-modified screening values for air contaminants that are more stringent than the corresponding USEPA RSL value, and includes the corresponding toxicity factors. For this roster of analytes (i.e., with at least one DTSC-SL), available USEPA RSL values are also provided for receptors or endpoints that lack a designated DTSC-SL, for table completeness. A Microsoft Excel® version of Table 3 is available for download from the DTSC website.

Table 4, Maximum Contaminant Levels (MCLs)

Table 4 presents the roster of analytes for which a DTSC-SL or USEPA RSL exceeds an MCL regulatory criterion. A Microsoft Excel® version of Table 4 is available for download from the DTSC website.

Appendices A through C

Computational details for the derivation of screening levels are provided as Appendix A (soil), Appendix B (tap water), and Appendix C (air). The appendices are provided as Microsoft Excel® files, available for download from the DTSC website.

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
1,1,1,2-Tetrachloroethane	630-20-6	2.0E+00	USEPA RSL	5.5E+02	DTSC-SL	8.8E+00	USEPA RSL	2.7E+03	DTSC-SL	2.6E-02	IRIS	7.4E-06	IRIS	3.0E-02	IRIS	1.2E+02	Route
1,1,1-Trichloroethane	71-55-6	--	--	1.7E+03	DTSC-SL	--	--	7.2E+03	DTSC-SL	--	--	--	--	2.0E+00	IRIS	1.0E+03	OEHHA
1,1,2,2-Tetrachloroethane	79-34-5	6.0E-01	USEPA RSL	7.0E+02	DTSC-SL	2.7E+00	USEPA RSL	4.3E+03	DTSC-SL	2.0E-01	IRIS	5.8E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route
1,1,2-Trichloropropane	598-77-6	--	--	1.7E+02	DTSC-SL	--	--	1.1E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route
1,1-Dichloroethane	75-34-3	3.6E+00	USEPA RSL	1.6E+03	DTSC-SL	1.6E+01	USEPA RSL	7.1E+03	DTSC-SL	5.7E-03	OEHHA	1.6E-06	OEHHA	2.0E-01	PPRTV	8.0E+02	Route
1,1-Dichloroethene	75-35-4	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	--	--	5.0E-02	IRIS	7.0E+01	OEHHA
1,2,3-Trichlorobenzene	87-61-6	--	--	4.0E+01	DTSC-SL	--	--	3.0E+02	DTSC-SL	--	--	--	--	8.0E-04	Screening PPRTV	3.2E+00	Route
1,2,3-Trichloropropane	96-18-4	1.5E-03	DTSC-SL	4.8E+00	USEPA RSL	2.1E-02	DTSC-SL	2.1E+01	USEPA RSL	3.0E+01	IRIS	7.5E-03	Route	4.0E-03	IRIS	3.0E-01	IRIS
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	1.7E+01	DTSC-SL	--	--	1.5E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	1.2E+00	Route
1,2,4-Tribromobenzene	615-54-3	--	--	2.8E+02	DTSC-SL	--	--	2.5E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route
1,2,4-Trichlorobenzene	120-82-1	7.8E+00	DTSC-SL	5.8E+01	USEPA RSL	3.5E+01	DTSC-SL	2.6E+02	USEPA RSL	2.9E-02	PPRTV	7.3E-06	Route	1.0E-02	IRIS	2.0E+00	PPRTV
1,2-Dibromo-3-chloropropane	96-12-8	4.3E-03	DTSC-SL	4.7E+00	USEPA RSL	5.7E-02	DTSC-SL	2.5E+01	USEPA RSL	7.0E+00	OEHHA	6.0E-03	PPRTV	2.0E-04	PPRTV	2.0E-01	IRIS
1,2-Dinitrobenzene	528-29-0	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	PPRTV	--	--
1,2-Diphenylhydrazine	122-66-7	6.8E-01	USEPA RSL	--	--	1.9E+00	DTSC-SL	--	--	8.0E-01	IRIS	2.2E-04	IRIS	--	--	--	--
1,2-Phenylenediamine	95-54-5	4.5E+00	USEPA RSL	2.5E+02	USEPA RSL	1.2E+01	DTSC-SL	2.1E+03	DTSC-SL	1.2E-01	PPRTV	--	--	4.0E-03	PPRTV	--	--
1,3,5-Trinitrobenzene	99-35-4	--	--	2.2E+03	USEPA RSL	--	--	2.9E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
1,3-Butadiene	106-99-0	1.4E-02	DTSC-SL	1.8E+00	USEPA RSL	6.2E-02	DTSC-SL	7.6E+00	USEPA RSL	6.0E-01	OEHHA	1.7E-04	OEHHA	--	--	2.0E+00	IRIS
1,3-Dibromobenzene	108-36-1	--	--	1.6E+01	DTSC-SL	--	--	1.0E+02	DTSC-SL	--	--	--	--	4.0E-04	Screening PPRTV	1.6E+00	Route
1,3-Dichloropropane	142-28-9	--	--	4.1E+02	DTSC-SL	--	--	2.2E+03	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route
1,3-Dinitrobenzene	99-65-0	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	IRIS	--	--
1,3-Phenylenediamine	108-45-2	--	--	3.8E+02	USEPA RSL	--	--	3.2E+03	DTSC-SL	--	--	--	--	6.0E-03	IRIS	--	--
1,4-Benzenediamine-2-methyl sulfate	6369-59-1	5.4E+00	USEPA RSL	1.9E+01	USEPA RSL	1.5E+01	DTSC-SL	1.6E+02	DTSC-SL	1.0E-01	Screening PPRTV	--	--	3.0E-04	Screening PPRTV	--	--
1,4-Dibromobenzene	106-37-6	--	--	4.2E+02	DTSC-SL	--	--	2.9E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route
1,4-Dinitrobenzene	100-25-4	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	PPRTV	--	--
1,4-Dithiane	505-29-3	--	--	5.5E+02	DTSC-SL	--	--	4.7E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route
1,4-Phenylenediamine	106-50-3	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	Screening PPRTV	--	--
1-Bromo-3-fluorobenzene	1073-06-9	--	--	8.8E+00	DTSC-SL	--	--	5.0E+01	DTSC-SL	--	--	--	--	3.0E-04	Screening PPRTV	1.2E+00	Route
1-Bromo-4-fluorobenzene	460-00-4	--	--	8.9E+00	DTSC-SL	--	--	5.1E+01	DTSC-SL	--	--	--	--	3.0E-04	Screening PPRTV	1.2E+00	Route
1-Chlorobutane	109-69-3	--	--	2.7E+02	DTSC-SL	--	--	1.2E+03	DTSC-SL	--	--	--	--	4.0E-02	PPRTV	1.6E+02	Route
1-Methylnaphthalene	90-12-0	9.9E+00	DTSC-SL	3.4E+03	DTSC-SL	3.0E+01	DTSC-SL	2.2E+04	DTSC-SL	2.9E-02	PPRTV	7.3E-06	Route	7.0E-02	ATSDR	2.8E+02	Route
2-(2-methoxyethoxy)-Ethanol	111-77-3	--	--	2.5E+03	USEPA RSL	--	--	2.1E+04	DTSC-SL	--	--	--	--	4.0E-02	PPRTV	--	--
2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether	1163-19-5	7.8E+02	USEPA RSL	4.4E+02	USEPA RSL	2.1E+03	DTSC-SL	3.7E+03	DTSC-SL	7.0E-04	IRIS	--	--	7.0E-03	IRIS	--	--
2,2',4,4',5,5'-Hexabromodiphenyl ether	68631-49-2	--	--	1.3E+01	USEPA RSL	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-04	IRIS	--	--
2,2',4,4',5-Pentabromodiphenyl ether	60348-60-9	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	IRIS	--	--
2,2',4,4'-Tetrabromodiphenyl ether	5436-43-1	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	IRIS	--	--
2,3,4,6-Tetrachlorophenol	58-90-2	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	4.8E-06	USEPA RSL	5.1E-05	USEPA RSL	1.8E-05	DTSC-SL	6.0E-04	DTSC-SL	1.3E+05	OEHHA	3.8E+01	OEHHA	7.0E-10	IRIS	4.0E-05	OEHHA
2,3-Dichloropropanol	616-23-9	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	IRIS	--	--
2,4,4-Trimethylpentene	25167-70-8	--	--	4.0E+01	DTSC-SL	--	--	1.7E+02	DTSC-SL	--	--	--	--	1.0E-02	Screening PPRTV	4.0E+01	Route
2,4,5-Trichlorophenol	95-95-4	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
2,4,5-Trichlorophenoxyacetic acid	93-76-5	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
2,4,6-Tribromophenol	118-79-6	--	--	5.7E+02	USEPA RSL	--	--	4.8E+03	DTSC-SL	--	--	--	--	9.0E-03	Screening PPRTV	--	--
2,4,6-Trichloroaniline	634-93-5	7.8E+01	USEPA RSL	1.9E+00	USEPA RSL	2.1E+02	DTSC-SL	1.6E+01	DTSC-SL	7.0E-03	Screening PPRTV	--	--	3.0E-05	Screening PPRTV	--	--
2,4,6-Trichloroaniline hydrochloride	33663-50-2	1.9E+01	USEPA RSL	--	--	5.1E+01	DTSC-SL	--	--	2.9E-02	HEAST	--	--	--	--	--	--
2,4,6-Trichlorophenol	88-06-2	7.8E+00	DTSC-SL	6.3E+01	USEPA RSL	2.1E+01	DTSC-SL	5.3E+02	DTSC-SL	7.0E-02	OEHHA	2.0E-05	OEHHA	1.0E-03	PPRTV	--	--
2,4,6-Trinitrotoluene	118-96-7	2.1E+01	USEPA RSL	3.6E+01	USEPA RSL	7.9E+01	DTSC-SL	4.2E+02	DTSC-SL	3.0E-02	IRIS	--	--	5.0E-04	IRIS	--	--
2,4/2,6-Dinitrotoluenes	E1615210	8.0E-01	USEPA RSL	5.7E+01	DTSC-SL	2.2E+00	DTSC-SL	4.8E+02	DTSC-SL	6.8E-01	IRIS	--	--	9.0E-04	Screening PPRTV	--	--
2,4-Dichlorophenol	120-83-2	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	IRIS	--	--
2,4-Dichlorophenoxyacetic acid	94-75-7	--	--	7.0E+02	USEPA RSL	--	--	7.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
2,4-Dichlorophenoxybutyric acid	94-82-6	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	RSL	--	--
2,4-Dimethylaniline	95-68-1	2.7E+00	USEPA RSL	1.3E+02	USEPA RSL	7.4E+00	DTSC-SL	1.1E+03	DTSC-SL	2.0E-01	PPRTV	--	--	2.0E-03	Screening PPRTV	--	--
2,4-Dimethylaniline hydrochloride	21436-96-4	9.4E-01	USEPA RSL	--	--	2.6E+00	DTSC-SL	--	--	5.8E-01	HEAST	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
2,4-Dinitrophenol	51-28-5	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	--	--
2,4-Dinitrotoluene	121-14-2	1.7E+00	USEPA RSL	1.3E+02	USEPA RSL	4.7E+00	DTSC-SL	1.0E+03	DTSC-SL	3.1E-01	OEHHA	8.9E-05	OEHHA	2.0E-03	IRIS	--	--
2,6-Dimethylphenol	576-26-1	--	--	3.8E+01	USEPA RSL	--	--	3.2E+02	DTSC-SL	--	--	--	--	6.0E-04	IRIS	--	--
2,6-Dinitrotoluene	606-20-2	3.6E-01	USEPA RSL	1.9E+01	USEPA RSL	9.9E-01	DTSC-SL	1.6E+02	DTSC-SL	1.5E+00	PPRTV	--	--	3.0E-04	Screening PPRTV	--	--
2-Acetylaminofluorene	53-96-3	1.4E-01	USEPA RSL	--	--	3.9E-01	DTSC-SL	--	--	3.8E+00	OEHHA	1.3E-03	OEHHA	--	--	--	--
2-Amino-4,6-dinitrotoluene	35572-78-2	--	--	1.5E+02	USEPA RSL	--	--	2.2E+03	DTSC-SL	--	--	--	--	2.0E-03	RSL	--	--
2-Butoxyethanol	111-76-2	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	1.6E+03	IRIS
2-Chloroethanol	107-07-3	--	--	1.3E+03	DTSC-SL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route
2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-me	140-57-8	2.2E+01	USEPA RSL	3.2E+03	USEPA RSL	5.9E+01	DTSC-SL	2.6E+04	DTSC-SL	2.5E-02	IRIS	7.1E-06	IRIS	5.0E-02	HEAST	--	--
2-Chloronaphthalene	91-58-7	--	--	4.1E+03	DTSC-SL	--	--	2.7E+04	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route
2-Chloronitrobenzene	88-73-3	1.8E+00	USEPA RSL	1.9E+02	USEPA RSL	4.9E+00	DTSC-SL	1.5E+03	DTSC-SL	3.0E-01	PPRTV	--	--	3.0E-03	PPRTV	1.0E-02	Screening PPRTV
2-Chlorophenol	95-57-8	--	--	3.4E+02	DTSC-SL	--	--	3.9E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
2-Chlorotoluene	95-49-8	--	--	4.7E+02	DTSC-SL	--	--	2.5E+03	DTSC-SL	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route
2-Mercaptobenzothiazole	149-30-4	4.9E+01	USEPA RSL	2.5E+02	USEPA RSL	1.3E+02	DTSC-SL	2.1E+03	DTSC-SL	1.1E-02	PPRTV	--	--	4.0E-03	PPRTV	--	--
2-Methoxy-5-nitroaniline	99-59-2	1.1E+01	USEPA RSL	--	--	3.0E+01	DTSC-SL	--	--	4.9E-02	OEHHA	1.4E-05	OEHHA	--	--	--	--
2-Methyl-1,4-benzenediamine dihydrochloride	615-45-2	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	Screening PPRTV	--	--
2-Methyl-5-nitroaniline	99-55-8	6.0E+01	USEPA RSL	1.3E+03	USEPA RSL	1.6E+02	DTSC-SL	1.1E+04	DTSC-SL	9.0E-03	PPRTV	--	--	2.0E-02	Screening PPRTV	--	--
2-Methylaniline hydrochloride	636-21-5	4.2E+00	USEPA RSL	--	--	1.1E+01	DTSC-SL	--	--	1.3E-01	OEHHA	3.7E-05	OEHHA	--	--	--	--
2-Methylbenzene, 1-4-diamine monohydrochloride	74612-12-7	--	--	1.3E+01	USEPA RSL	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-04	Screening PPRTV	--	--
2-Methylbenzene-1, 4-diamine sulfate	615-50-9	5.4E+00	USEPA RSL	1.9E+01	USEPA RSL	1.5E+01	DTSC-SL	1.6E+02	DTSC-SL	1.0E-01	Screening PPRTV	--	--	3.0E-04	Screening PPRTV	--	--
2-Methylnaphthalene	91-57-6	--	--	1.9E+02	DTSC-SL	--	--	1.3E+03	DTSC-SL	--	--	--	--	4.0E-03	IRIS	1.6E+01	Route
2-Methylphenol	95-48-7	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	6.0E+02	OEHHA
2-Naphthylamine	91-59-8	3.0E-01	DTSC-SL	--	--	8.2E-01	DTSC-SL	--	--	1.8E+00	OEHHA	4.5E-04	OEHHA	--	--	--	--
2-Nitroaniline	88-74-4	--	--	6.3E+02	USEPA RSL	--	--	5.2E+03	DTSC-SL	--	--	--	--	1.0E-02	Screening PPRTV	5.0E-02	Screening PPRTV
2-Nitrotoluene	88-72-2	2.2E+00	DTSC-SL	6.2E+01	DTSC-SL	1.0E+01	DTSC-SL	7.1E+02	DTSC-SL	2.2E-01	PPRTV	5.5E-05	Route	9.0E-04	PPRTV	3.6E+00	Route
2-Phenylphenol	90-43-7	2.8E+02	USEPA RSL	--	--	7.6E+02	DTSC-SL	--	--	1.9E-03	HEAST	--	--	--	--	--	--
3,3'-Dichlorobenzidine	91-94-1	4.5E-01	DTSC-SL	--	--	1.2E+00	DTSC-SL	--	--	1.2E+00	OEHHA	3.4E-04	OEHHA	--	--	--	--
3,3'-Dimethoxybenzidine	119-90-4	3.4E-01	USEPA RSL	--	--	9.3E-01	DTSC-SL	--	--	1.6E+00	PPRTV	--	--	--	--	--	--
3,3'-Dimethylbenzidine	119-93-7	4.9E-02	USEPA RSL	--	--	1.3E-01	DTSC-SL	--	--	1.1E+01	PPRTV	--	--	--	--	--	--
3,4-Dimethylphenol	95-65-8	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
3-Methylcholanthrene	56-49-5	5.5E-03	USEPA RSL	--	--	6.7E-02	DTSC-SL	--	--	2.2E+01	OEHHA	6.3E-03	OEHHA	--	--	--	--
3-Methylphenol	108-39-4	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	6.0E+02	OEHHA
3-Nitrotoluene	99-08-1	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	Screening PPRTV	--	--
4-(2-Methyl-4-chlorophenoxy)butyric acid	94-81-5	--	--	2.8E+02	USEPA RSL	--	--	2.3E+03	DTSC-SL	--	--	--	--	4.4E-03	RSL	--	--
4,4'-DDD	72-54-8	2.3E+00	USEPA RSL	1.9E+00	USEPA RSL	6.2E+00	DTSC-SL	1.6E+01	DTSC-SL	2.4E-01	IRIS	6.9E-05	OEHHA	3.0E-05	Screening PPRTV	--	--
4,4'-DDE	72-55-9	2.0E+00	USEPA RSL	2.3E+01	DTSC-SL	9.3E+00	USEPA RSL	3.4E+02	DTSC-SL	3.4E-01	IRIS	9.7E-05	OEHHA	3.0E-04	Screening PPRTV	1.2E+00	Route
4,4'-DDT	50-29-3	1.9E+00	USEPA RSL	3.7E+01	USEPA RSL	7.1E+00	DTSC-SL	4.3E+02	DTSC-SL	3.4E-01	IRIS	9.7E-05	IRIS	5.0E-04	IRIS	--	--
4,4'-Dichlorobenzophenone	90-98-2	--	--	5.7E+02	USEPA RSL	--	--	4.8E+03	DTSC-SL	--	--	--	--	9.0E-03	Screening PPRTV	--	--
4,4'-Dichlorodiphenyl sulfone	80-07-9	--	--	5.1E+01	USEPA RSL	--	--	4.2E+02	DTSC-SL	--	--	--	--	8.0E-04	PPRTV	--	--
4,4'-Methylene bis(N,N'-dimethyl)aniline	101-61-1	1.2E+01	USEPA RSL	--	--	3.2E+01	DTSC-SL	--	--	4.6E-02	IRIS	1.3E-05	OEHHA	--	--	--	--
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	8.1E-02	DTSC-SL	1.3E+02	USEPA RSL	9.9E-01	DTSC-SL	1.1E+03	DTSC-SL	1.5E+00	OEHHA	4.3E-04	OEHHA	2.0E-03	PPRTV	--	--
4,4'-Methylenebisbenzeneamine	101-77-9	3.4E-01	USEPA RSL	2.8E+07	USEPA RSL	9.3E-01	DTSC-SL	1.2E+08	USEPA RSL	1.6E+00	OEHHA	4.6E-04	OEHHA	--	--	2.0E+01	OEHHA
4,6-Dinitro-2-methylphenol	534-52-1	--	--	5.1E+00	USEPA RSL	--	--	4.2E+01	DTSC-SL	--	--	--	--	8.0E-05	Screening PPRTV	--	--
4,6-Dinitro-o-cyclohexyl phenol	131-89-5	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	--	--
4-Amino-2,6-dinitrotoluene	19406-51-0	--	--	1.5E+02	USEPA RSL	--	--	2.1E+03	DTSC-SL	--	--	--	--	2.0E-03	RSL	--	--
4-Aminobiphenyl	92-67-1	2.6E-02	USEPA RSL	--	--	7.1E-02	DTSC-SL	--	--	2.1E+01	OEHHA	6.0E-03	OEHHA	--	--	--	--
4-Chloro-2-methylaniline hydrochloride	3165-93-3	1.2E+00	USEPA RSL	--	--	3.2E+00	DTSC-SL	--	--	4.6E-01	HEAST	--	--	--	--	--	--
4-Chloro-3-methylphenol	59-50-7	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	ATSDR	--	--
4-Chloroaniline	106-47-8	2.7E+00	USEPA RSL	2.5E+02	USEPA RSL	7.4E+00	DTSC-SL	2.1E+03	DTSC-SL	2.0E-01	PPRTV	--	--	4.0E-03	IRIS	--	--
4-Chloronitrobenzene	100-00-5	9.0E+00	USEPA RSL	4.4E+01	USEPA RSL	2.5E+01	DTSC-SL	3.7E+02	DTSC-SL	6.0E-02	PPRTV	--	--	7.0E-04	PPRTV	2.0E+00	PPRTV
4-Chlorotoluene	106-43-4	--	--	4.4E+02	DTSC-SL	--	--	2.3E+03	DTSC-SL	--	--	--	--	2.0E-02	Screening PPRTV	8.0E+01	Route
4-Dimethylaminoazobenzene	60-11-7	1.2E-01	USEPA RSL	--	--	3.2E-01	DTSC-SL	--	--	4.6E+00	OEHHA	1.3E-03	OEHHA	--	--	--	--
4-Methylphenol	106-44-5	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	ATSDR	6.0E+02	OEHHA
4-Nitroaniline	100-01-6	2.7E+01	USEPA RSL	2.5E+02	USEPA RSL	7.4E+01	DTSC-SL	2.1E+03	DTSC-SL	2.0E-02	PPRTV	--	--	4.0E-03	PPRTV	6.0E+00	PPRTV
4-Nitropyrene	57835-92-4	4.2E-01	USEPA RSL	--	--	1.1E+00	DTSC-SL	--	--	1.2E+00	OEHHA	1.1E-04	OEHHA	--	--	--	--
4-Nitrotoluene	99-99-0	3.4E+01	USEPA RSL	2.5E+02	USEPA RSL	9.3E+01	DTSC-SL	2.1E+03	DTSC-SL	1.6E-02	PPRTV	--	--	4.0E-03	PPRTV	--	--
7,12-Dimethylbenz[a]anthracene	57-97-6	4.6E-04	USEPA RSL	--	--	5.1E-03	DTSC-SL	--	--	2.5E+02	OEHHA	7.1E-02	OEHHA	--	--	--	--
9,10-Anthraquinone	84-65-1	1.4E+01	USEPA RSL	1.3E+02	USEPA RSL	3.7E+01	DTSC-SL	1.1E+03	DTSC-SL	4.0E-02	PPRTV	--	--	2.0E-03	Screening PPRTV	--	--
Acenaphthene	83-32-9	--	--	3.3E+03	DTSC-SL	--	--	2.3E+04	DTSC-SL	--	--	--	--	6.0E-02	IRIS	2.4E+02	Route
Acephate	30560-19-1	--	--	7.6E+01	USEPA RSL	--	--	6.4E+02	DTSC-SL	--	--	--	--	1.2E-03	RSL	--	--
Acetaldehyde	75-07-0	9.1E+00	DTSC-SL	8.2E+01	USEPA RSL	4.0E+01	DTSC-SL	3.4E+02	USEPA RSL	--	--	2.7E-06	OEHHA	--	--	9.0E+00	IRIS
Acetochlor	34256-82-1	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Acetophenone	98-86-2	--	--	6.0E+03	DTSC-SL	--	--	5.5E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route
Acifluorfen sodium	62476-59-9	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
Acrylamide	79-06-1	2.4E-01	USEPA RSL	1.3E+02	USEPA RSL	3.0E+00	DTSC-SL	1.1E+03	DTSC-SL	5.0E-01	IRIS	1.0E-04	IRIS	2.0E-03	IRIS	6.0E+00	IRIS
Alachlor	15972-60-8	9.7E+00	USEPA RSL	6.3E+02	USEPA RSL	2.6E+01	DTSC-SL	5.3E+03	DTSC-SL	5.6E-02	OEHHA	--	--	1.0E-02	IRIS	--	--
Aldicarb	116-06-3	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
Aldicarb sulfone	1646-88-4	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
Aldrin	309-00-2	3.9E-02	USEPA RSL	2.3E+00	DTSC-SL	1.8E-01	USEPA RSL	3.4E+01	DTSC-SL	1.7E+01	IRIS	4.9E-03	IRIS	3.0E-05	IRIS	1.2E-01	Route
alpha-HCH	319-84-6	8.6E-02	USEPA RSL	5.1E+02	USEPA RSL	2.4E-01	DTSC-SL	4.2E+03	DTSC-SL	6.3E+00	IRIS	1.8E-03	IRIS	8.0E-03	ATSDR	--	--
Ametryn	834-12-8	--	--	5.7E+02	USEPA RSL	--	--	4.8E+03	DTSC-SL	--	--	--	--	9.0E-03	IRIS	--	--
Amitraz	33089-61-1	--	--	1.6E+02	USEPA RSL	--	--	1.3E+03	DTSC-SL	--	--	--	--	2.5E-03	IRIS	--	--
Aniline	62-53-3	9.5E+01	USEPA RSL	4.4E+02	USEPA RSL	2.6E+02	DTSC-SL	3.7E+03	DTSC-SL	5.7E-03	IRIS	1.6E-06	OEHHA	7.0E-03	PPRTV	1.0E+00	IRIS
Anthracene	120-12-7	--	--	1.7E+04	DTSC-SL	--	--	1.3E+05	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route
Aroclor 1016	12674-11-2	6.7E+00	USEPA RSL	4.0E+00	DTSC-SL	1.7E+01	DTSC-SL	2.9E+01	DTSC-SL	7.0E-02	IRIS	2.0E-05	RSL	7.0E-05	IRIS	2.8E-01	Route
Aroclor 1221	11104-28-2	2.0E-01	USEPA RSL	--	--	5.3E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--
Aroclor 1232	11141-16-5	1.7E-01	USEPA RSL	--	--	4.9E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Aroclor 1242	53469-21-9	2.3E-01	USEPA RSL	--	--	5.8E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--
Aroclor 1248	12672-29-6	2.3E-01	USEPA RSL	--	--	5.8E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--
Aroclor 1254	11097-69-1	2.4E-01	USEPA RSL	1.2E+00	DTSC-SL	5.9E-01	DTSC-SL	8.4E+00	DTSC-SL	2.0E+00	IRIS	5.7E-04	IRIS	2.0E-05	IRIS	8.0E-02	Route
Aroclor 1260	11096-82-5	2.4E-01	USEPA RSL	--	--	6.0E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--
Aroclor 5460	11126-42-4	--	--	3.5E+01	DTSC-SL	--	--	2.5E+02	DTSC-SL	--	--	--	--	6.0E-04	Screening PPRTV	2.4E+00	Route
Arsenic	7440-38-2	1.1E-01	DTSC-SL	4.1E-01	DTSC-SL	3.6E-01	DTSC-SL	4.2E+00	DTSC-SL	9.5E+00	OEHHA	4.3E-03	IRIS	3.5E-06	OEHHA	1.5E-02	OEHHA
Arsine	7784-42-1	--	--	2.7E-01	USEPA RSL	--	--	4.1E+00	DTSC-SL	--	--	--	--	3.5E-06	OEHHA	1.5E-02	OEHHA
Asulam	3337-71-1	--	--	2.3E+03	USEPA RSL	--	--	1.9E+04	DTSC-SL	--	--	--	--	3.6E-02	RSL	--	--
Atrazine	1912-24-9	2.4E+00	USEPA RSL	2.2E+03	USEPA RSL	6.4E+00	DTSC-SL	1.9E+04	DTSC-SL	2.3E-01	OEHHA	--	--	3.5E-02	IRIS	--	--
Auramine	492-80-8	6.2E-01	USEPA RSL	--	--	1.7E+00	DTSC-SL	--	--	8.8E-01	OEHHA	2.5E-04	OEHHA	--	--	--	--
Avermectin B1a	65195-55-3	--	--	2.5E+01	USEPA RSL	--	--	2.1E+02	DTSC-SL	--	--	--	--	4.0E-04	IRIS	--	--
Azinphos-methyl	86-50-0	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	ATSDR	1.0E+01	ATSDR
Azodicarbonamide	123-77-3	--	--	8.6E+03	USEPA RSL	--	--	3.9E+04	DTSC-SL	--	--	--	--	1.0E+00	PPRTV	7.0E-03	Screening PPRTV
Benfluralin	1861-40-1	--	--	3.7E+02	DTSC-SL	--	--	4.8E+03	DTSC-SL	--	--	--	--	5.0E-03	RSL	2.0E+01	Route
Benomyl	17804-35-2	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--
Bensulfuron methyl	83055-99-6	--	--	1.3E+04	USEPA RSL	--	--	1.1E+05	DTSC-SL	--	--	--	--	2.0E-01	IRIS	--	--
Bentazon	25057-89-0	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Benzaldehyde	100-52-7	4.6E+01	DTSC-SL	4.3E+03	DTSC-SL	2.1E+02	DTSC-SL	2.9E+04	DTSC-SL	4.0E-03	PPRTV	1.0E-06	Route	1.0E-01	IRIS	4.0E+02	Route
Benzene	71-43-2	3.3E-01	DTSC-SL	1.1E+01	DTSC-SL	1.4E+00	DTSC-SL	4.6E+01	DTSC-SL	1.0E-01	OEHHA	2.9E-05	OEHHA	4.0E-03	IRIS	3.0E+00	OEHHA
Benzidine	92-87-5	2.4E-04	DTSC-SL	1.9E+02	USEPA RSL	3.0E-03	DTSC-SL	1.6E+03	DTSC-SL	5.0E+02	OEHHA	1.4E-01	OEHHA	3.0E-03	IRIS	--	--
Benzo[a]anthracene	56-55-3	1.1E+00	DTSC-SL	--	--	1.2E+01	DTSC-SL	--	--	1.0E-01	RSL	1.1E-04	OEHHA	--	--	--	--
Benzo[a]pyrene	50-32-8	1.1E-01	USEPA RSL	1.8E+01	USEPA RSL	1.3E+00	DTSC-SL	1.3E+02	DTSC-SL	1.0E+00	IRIS	1.1E-03	OEHHA	3.0E-04	IRIS	2.0E-03	IRIS
Benzo[b]fluoranthene	205-99-2	1.1E+00	USEPA RSL	--	--	1.3E+01	DTSC-SL	--	--	1.0E-01	RSL	1.1E-04	OEHHA	--	--	--	--
Benzo[j]fluoranthene	205-82-3	4.2E-01	USEPA RSL	--	--	1.1E+00	DTSC-SL	--	--	1.2E+00	OEHHA	1.1E-04	OEHHA	--	--	--	--
Benzo[k]fluoranthene	207-08-9	1.1E+01	DTSC-SL	--	--	1.3E+02	DTSC-SL	--	--	1.0E-02	RSL	1.1E-04	OEHHA	--	--	--	--
Benzoic acid	65-85-0	--	--	2.5E+05	USEPA RSL	--	--	2.1E+06	DTSC-SL	--	--	--	--	4.0E+00	IRIS	--	--
Benzotrichloride	98-07-7	2.8E-02	DTSC-SL	--	--	1.3E-01	DTSC-SL	--	--	1.3E+01	IRIS	3.3E-03	Route	--	--	--	--
Benzyl alcohol	100-51-6	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	PPRTV	--	--
Beryllium	7440-41-7	1.6E+03	USEPA RSL	1.6E+01	DTSC-SL	6.9E+03	USEPA RSL	2.3E+02	DTSC-SL	--	--	2.4E-03	IRIS	2.0E-04	OEHHA	7.0E-03	OEHHA
Beryllium Sulfate	13510-49-1	1.6E+03	DTSC-SL	1.6E+01	DTSC-SL	6.9E+03	DTSC-SL	2.3E+02	DTSC-SL	--	--	2.4E-03	IRIS	2.0E-04	OEHHA	7.0E-03	OEHHA
beta-HCH	319-85-7	3.0E-01	USEPA RSL	--	--	8.2E-01	DTSC-SL	--	--	1.8E+00	IRIS	5.3E-04	IRIS	--	--	--	--
Bifenoх	42576-02-3	--	--	5.7E+02	USEPA RSL	--	--	4.8E+03	DTSC-SL	--	--	--	--	9.0E-03	PPRTV	--	--
Biphen thrin	82657-04-3	--	--	9.5E+02	USEPA RSL	--	--	7.9E+03	DTSC-SL	--	--	--	--	1.5E-02	IRIS	--	--
Biphenyl	92-52-4	5.6E+01	DTSC-SL	4.7E+01	USEPA RSL	2.6E+02	DTSC-SL	2.0E+02	USEPA RSL	8.0E-03	IRIS	2.0E-06	Route	5.0E-01	IRIS	4.0E-01	Screening PPRTV
bis(2-Chloroethoxy) methane	111-91-1	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	PPRTV	--	--
bis(2-Chloroethyl) Ether	111-44-4	1.0E-01	DTSC-SL	--	--	4.7E-01	DTSC-SL	--	--	2.5E+00	OEHHA	7.1E-04	OEHHA	--	--	--	--
bis(2-Ethylhexyl) phthalate	117-81-7	3.9E+01	USEPA RSL	1.3E+03	USEPA RSL	1.1E+02	DTSC-SL	1.1E+04	DTSC-SL	1.4E-02	IRIS	2.4E-06	OEHHA	2.0E-02	IRIS	--	--
bis-Chloroisopropyl Ether	108-60-1	--	--	2.0E+03	DTSC-SL	--	--	1.6E+04	DTSC-SL	--	--	--	--	4.0E-02	IRIS	1.6E+02	Route
Bisphenol A	80-05-7	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--
Bromodichloromethane	75-27-4	2.9E-01	USEPA RSL	2.7E+02	DTSC-SL	1.3E+00	USEPA RSL	1.3E+03	DTSC-SL	6.2E-02	IRIS	3.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route
Bromoform	75-25-2	1.9E+01	USEPA RSL	5.3E+02	DTSC-SL	8.6E+01	USEPA RSL	3.0E+03	DTSC-SL	7.9E-03	IRIS	1.1E-06	IRIS	2.0E-02	IRIS	8.0E+01	Route
Bromophos	2104-96-3	--	--	3.4E+02	DTSC-SL	--	--	3.8E+03	DTSC-SL	--	--	--	--	5.0E-03	HEAST	2.0E+01	Route
Bromoxynil	1689-84-5	5.3E+00	USEPA RSL	9.5E+02	USEPA RSL	1.4E+01	DTSC-SL	7.9E+03	DTSC-SL	1.0E-01	RSL	--	--	1.5E-02	RSL	--	--
Bromoxynil octanoate	1689-99-2	6.7E+00	USEPA RSL	1.1E+03	DTSC-SL	3.2E+01	USEPA RSL	1.5E+04	DTSC-SL	1.0E-01	RSL	--	--	1.5E-02	RSL	6.0E+01	Route
Butyl benzyl phthalate	85-68-7	2.9E+02	USEPA RSL	1.3E+04	USEPA RSL	7.8E+02	DTSC-SL	1.1E+05	DTSC-SL	1.9E-03	PPRTV	--	--	2.0E-01	IRIS	--	--
Butylate	2008-41-5	--	--	3.2E+03	DTSC-SL	--	--	3.3E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route
Butylated hydroxyanisole	25013-16-5	2.7E+03	USEPA RSL	--	--	7.4E+03	DTSC-SL	--	--	2.0E-04	OEHHA	5.7E-08	OEHHA	--	--	--	--
Butylated Hydroxytoluene	128-37-0	1.5E+02	USEPA RSL	1.9E+04	USEPA RSL	4.1E+02	DTSC-SL	1.6E+05	DTSC-SL	3.6E-03	PPRTV	--	--	3.0E-01	PPRTV	--	--
Butylphthalyl butylglycolate	85-70-1	--	--	6.3E+04	USEPA RSL	--	--	5.3E+05	DTSC-SL	--	--	--	--	1.0E+00	IRIS	--	--
Cacodylic acid	75-60-5	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	ATSDR	--	--
Cadmium (diet)	7440-43-9 (diet)	9.1E+02	DTSC-SL	7.1E+01	USEPA RSL	4.0E+03	DTSC-SL	7.8E+02	DTSC-SL	--	--	4.2E-03	OEHHA	1.0E-03	IRIS	1.0E-02	ATSDR
Caprolactam	105-60-2	--	--	3.1E+04	USEPA RSL	--	--	2.6E+05	DTSC-SL	--	--	--	--	5.0E-01	IRIS	2.2E+00	OEHHA
Captafol	2425-06-1	3.6E+00	USEPA RSL	1.3E+02	USEPA RSL	9.9E+00	DTSC-SL	1.1E+03	DTSC-SL	1.5E-01	OEHHA	4.3E-05	OEHHA	2.0E-03	IRIS	--	--
Captan	133-06-2	2.4E+02	USEPA RSL	8.2E+03	USEPA RSL	6.4E+02	DTSC-SL	6.9E+04	DTSC-SL	2.3E-03	OEHHA	6.6E-07	OEHHA	1.3E-01	IRIS	--	--
Carbaryl	63-25-2	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
Carbofuran	1563-66-2	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	--	--
Carbon tetrachloride	56-23-5	6.5E-01	USEPA RSL	5.2E+01	DTSC-SL	2.9E+00	USEPA RSL	2.5E+02	DTSC-SL	7.0E-02	IRIS	6.0E-06	IRIS	4.0E-03	IRIS	4.0E+01	OEHHA
Carbonyl sulfide	463-58-1	--	--	6.7E+00	DTSC-SL	--	--	2.8E+01	DTSC-SL	--	--	--	--	--	--	1.0E+01	OEHHA
Carbosulfan	55285-14-8	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
Carboxin	5234-68-4	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
Chloral hydrate	302-17-0	--	--	6.9E+03	DTSC-SL	--	--	8.0E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route
Chloramben	133-90-4	--	--	9.5E+02	USEPA RSL	--	--	7.9E+03	DTSC-SL	--	--	--	--	1.5E-02	IRIS	--	--
Chloranil	118-75-2	1.3E+00	USEPA RSL	--	--	3.7E+00	DTSC-SL	--	--	4.0E-01	HEAST	--	--	--	--	--	--
Chlordane (technical)	12789-03-6	1.7E+00	USEPA RSL	3.5E+01	USEPA RSL	6.1E+00	DTSC-SL	3.6E+02	DTSC-SL	3.5E-01	IRIS	1.0E-04	IRIS	5.0E-04	IRIS	7.0E-01	IRIS
Chlorfenvinphos	470-90-6	--	--	4.4E+01	USEPA RSL	--	--	3.7E+02	DTSC-SL	--	--	--	--	7.0E-04	ATSDR	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ²							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Chlorimuron-ethyl	90982-32-4	--	--	5.7E+03	USEPA RSL	--	--	4.8E+04	DTSC-SL	--	--	--	--	9.0E-02	RSL	--	--
Chloroacetaldehyde	107-20-0	5.3E-01	DTSC-SL	--	--	2.4E+00	DTSC-SL	--	--	2.7E-01	Screening PPRTV	6.8E-05	Route	--	--	--	--
Chlorobenzilate	510-15-6	4.9E+00	USEPA RSL	1.3E+03	USEPA RSL	1.3E+01	DTSC-SL	1.1E+04	DTSC-SL	1.1E-01	OEHHA	3.1E-05	OEHHA	2.0E-02	IRIS	--	--
Chlorodibromomethane	124-48-1	9.4E-01	DTSC-SL	4.7E+02	DTSC-SL	4.1E+00	DTSC-SL	2.5E+03	DTSC-SL	8.4E-02	IRIS	2.1E-05	Route	2.0E-02	IRIS	8.0E+01	Route
Chlorothalonil	1897-45-6	3.2E+01	DTSC-SL	9.5E+02	USEPA RSL	8.7E+01	DTSC-SL	7.9E+03	DTSC-SL	1.7E-02	OEHHA	8.9E-07	OEHHA	1.5E-02	IRIS	--	--
Chlorazotocin	54749-90-5	2.3E-03	USEPA RSL	--	--	6.2E-03	DTSC-SL	--	--	2.4E+02	OEHHA	6.9E-02	OEHHA	--	--	--	--
Chlorpropham	101-21-3	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	RSL	--	--
Chlorpyrifos	2921-88-2	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	ATSDR	--	--
Chlorpyrifos-methyl	5598-13-0	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	HEAST	--	--
Chlorsulfuron	64902-72-3	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	RSL	--	--
Chlorthal-dimethyl	1861-32-1	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
Chlorthiophos	60238-56-4	--	--	5.1E+01	USEPA RSL	--	--	4.2E+02	DTSC-SL	--	--	--	--	8.0E-04	HEAST	--	--
Chromium (VI)	18540-29-9	3.0E-01	DTSC-SL	2.3E+02	USEPA RSL	6.2E+00	DTSC-SL	3.5E+03	USEPA RSL	5.0E-01	OEHHA	1.5E-01	OEHHA	3.0E-03	IRIS	1.0E-01	IRIS
Chrysene	218-01-9	1.1E+02	DTSC-SL	--	--	1.3E+03	DTSC-SL	--	--	1.0E-03	RSL	1.1E-05	OEHHA	--	--	--	--
cis-1,2-Dichloroethene	156-59-2	--	--	1.8E+01	DTSC-SL	--	--	8.4E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route
Clofentazine	74115-24-5	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
Cupferron	135-20-6	2.5E+00	USEPA RSL	--	--	6.7E+00	DTSC-SL	--	--	2.2E-01	OEHHA	6.3E-05	OEHHA	--	--	--	--
Cyanazine	21725-46-2	6.5E-01	USEPA RSL	1.3E+02	USEPA RSL	1.8E+00	DTSC-SL	1.1E+03	DTSC-SL	8.4E-01	HEAST	--	--	2.0E-03	HEAST	--	--
Cyanogen	460-19-5	--	--	7.8E+01	DTSC-SL	--	--	1.2E+03	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route
Cyanogen bromide	506-68-3	--	--	7.0E+03	DTSC-SL	--	--	1.1E+05	DTSC-SL	--	--	--	--	9.0E-02	IRIS	3.6E+02	Route
Cyanogen chloride	506-77-4	--	--	3.9E+03	USEPA RSL	--	--	5.8E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route
Cyclohexylamine	108-91-8	--	--	1.3E+04	DTSC-SL	--	--	1.2E+05	DTSC-SL	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route
Cyfluthrin	68359-37-5	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Cyhalothrin	68085-85-8	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	RSL	--	--
Cyromazine	66215-27-8	--	--	3.2E+04	USEPA RSL	--	--	2.6E+05	DTSC-SL	--	--	--	--	5.0E-01	RSL	--	--
Dalapon	75-99-0	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Daminozide	1596-84-5	3.0E+01	USEPA RSL	9.5E+03	USEPA RSL	8.2E+01	DTSC-SL	7.9E+04	DTSC-SL	1.8E-02	OEHHA	5.1E-06	OEHHA	1.5E-01	IRIS	--	--
Danitol	39515-41-8	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Demeton	8065-48-3	--	--	2.5E+00	USEPA RSL	--	--	2.1E+01	DTSC-SL	--	--	--	--	4.0E-05	IRIS	--	--
Di(2-ethylhexyl)adipate	103-23-1	4.5E+02	USEPA RSL	3.8E+04	USEPA RSL	1.2E+03	DTSC-SL	3.2E+05	DTSC-SL	1.2E-03	IRIS	--	--	6.0E-01	IRIS	--	--
Diallate	2303-16-4	8.9E+00	USEPA RSL	--	--	2.4E+01	DTSC-SL	--	--	6.1E-02	HEAST	--	--	--	--	--	--
Diazinon	333-41-5	--	--	4.4E+01	USEPA RSL	--	--	3.7E+02	DTSC-SL	--	--	--	--	7.0E-04	ATSDR	--	--
Dibenz[a,h]anthracene	53-70-3	2.8E-02	DTSC-SL	--	--	3.1E-01	DTSC-SL	--	--	4.1E+00	OEHHA	1.2E-03	OEHHA	--	--	--	--
Dibenzo[a,e]pyrene	192-65-4	4.2E-02	USEPA RSL	--	--	1.1E-01	DTSC-SL	--	--	1.2E+01	OEHHA	1.1E-03	OEHHA	--	--	--	--
Dibenzofuran	132-64-9	--	--	6.6E+01	DTSC-SL	--	--	6.5E+02	DTSC-SL	--	--	--	--	1.0E-03	Screening PPRTV	4.0E+00	Route
Dibenzothiophene	132-65-0	--	--	7.6E+02	DTSC-SL	--	--	1.0E+04	DTSC-SL	--	--	--	--	1.0E-02	Screening PPRTV	4.0E+01	Route
Dibutyltin Compounds	E1790660	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	PPRTV	--	--
Dicamba	1918-00-9	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Dichloroacetic acid	79-43-6	1.1E+01	USEPA RSL	2.5E+02	USEPA RSL	3.0E+01	DTSC-SL	2.1E+03	DTSC-SL	5.0E-02	IRIS	--	--	4.0E-03	IRIS	--	--
Dichlorvos	62-73-7	1.9E+00	USEPA RSL	3.2E+01	USEPA RSL	5.1E+00	DTSC-SL	2.6E+02	DTSC-SL	2.9E-01	IRIS	8.3E-05	OEHHA	5.0E-04	IRIS	5.0E-01	IRIS
Dicrotophos	141-66-2	--	--	1.9E+00	USEPA RSL	--	--	1.6E+01	DTSC-SL	--	--	--	--	3.0E-05	RSL	--	--
Dieldrin	60-57-1	3.4E-02	USEPA RSL	3.2E+00	DTSC-SL	9.3E-02	DTSC-SL	2.6E+01	DTSC-SL	1.6E+01	IRIS	4.6E-03	IRIS	5.0E-05	IRIS	2.0E-01	Route
Diethanolamine	111-42-2	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	PPRTV	2.0E-01	PPRTV
Diethyl phthalate	84-66-2	--	--	5.1E+04	USEPA RSL	--	--	4.2E+05	DTSC-SL	--	--	--	--	8.0E-01	IRIS	--	--
Diethylene glycol monobutyl Ether	112-34-5	--	--	1.9E+03	USEPA RSL	--	--	1.5E+04	DTSC-SL	--	--	--	--	3.0E-02	PPRTV	1.0E-01	PPRTV
Diethylene glycol monoethyl Ether	111-90-0	--	--	3.8E+03	USEPA RSL	--	--	3.1E+04	DTSC-SL	--	--	--	--	6.0E-02	PPRTV	3.0E-01	PPRTV
Diethylformamide	617-84-5	--	--	6.9E+01	DTSC-SL	--	--	7.9E+02	DTSC-SL	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route
Diethylstilbestrol	56-53-1	1.6E-03	USEPA RSL	--	--	4.2E-03	DTSC-SL	--	--	3.5E+02	OEHHA	1.0E-01	OEHHA	--	--	--	--
Difenzoquat	43222-48-6	--	--	5.2E+03	USEPA RSL	--	--	4.4E+04	DTSC-SL	--	--	--	--	8.3E-02	RSL	--	--
Diflubenzuron	35367-38-5	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
diisopropyl Methylphosphonate	1445-75-6	--	--	4.2E+03	DTSC-SL	--	--	3.4E+04	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route
Dimethipin	55290-64-7	--	--	1.4E+03	USEPA RSL	--	--	1.2E+04	DTSC-SL	--	--	--	--	2.2E-02	RSL	--	--
Dimethoate	60-51-5	--	--	1.4E+02	USEPA RSL	--	--	1.2E+03	DTSC-SL	--	--	--	--	2.2E-03	RSL	--	--
Dimethyl methylphosphonate	756-79-6	3.2E+02	USEPA RSL	3.8E+03	USEPA RSL	8.7E+02	DTSC-SL	3.2E+04	DTSC-SL	1.7E-03	PPRTV	--	--	6.0E-02	PPRTV	--	--
Dimethyl terephthalate	120-61-6	--	--	4.2E+03	DTSC-SL	--	--	2.8E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route
di-n-Butyl Phthalate	84-74-2	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
Dinitrotoluenes	25321-14-6	1.2E+00	USEPA RSL	5.7E+01	USEPA RSL	3.3E+00	DTSC-SL	4.8E+02	DTSC-SL	4.5E-01	Screening PPRTV	--	--	9.0E-04	Screening PPRTV	--	--
di-n-Octyl Phthalate	117-84-0	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	PPRTV	--	--
Dinoseb	88-85-7	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
Diphenamid	957-51-7	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Diphenyl Sulfone	127-63-9	--	--	5.1E+01	USEPA RSL	--	--	4.2E+02	DTSC-SL	--	--	--	--	8.0E-04	Screening PPRTV	--	--
Diphenylamine	122-39-4	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	RSL	--	--
Diphenyl-p-phenylenediamine	74-31-7	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	Screening PPRTV	--	--
Diquat	85-00-7	--	--	1.4E+02	USEPA RSL	--	--	1.2E+03	DTSC-SL	--	--	--	--	2.2E-03	IRIS	--	--
Direct Black 38	1937-37-7	7.3E-02	DTSC-SL	--	--	2.0E-01	DTSC-SL	--	--	7.4E+00	OEHHA	2.1E-03	OEHHA	--	--	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Direct Blue 6	2602-46-2	7.3E-02	USEPA RSL	--	--	2.0E-01	DTSC-SL	--	--	7.4E+00	OEHHA	2.1E-03	OEHHA	--	--	--	--
Direct Brown 95	16071-86-6	8.1E-02	USEPA RSL	--	--	2.2E-01	DTSC-SL	--	--	6.7E+00	OEHHA	1.9E-03	OEHHA	--	--	--	--
Disulfoton	298-04-4	--	--	2.5E+00	USEPA RSL	--	--	2.1E+01	DTSC-SL	--	--	--	--	4.0E-05	IRIS	--	--
Diuron	330-54-1	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	--	--
Dodine	2439-10-3	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	RSL	--	--
Endosulfan	115-29-7	--	--	4.5E+02	DTSC-SL	--	--	6.0E+03	DTSC-SL	--	--	--	--	6.0E-03	IRIS	2.4E+01	Route
Endothal	145-73-3	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Endrin	72-20-8	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	--	--
Epichlorohydrin	106-89-8	1.8E+00	DTSC-SL	1.9E+01	USEPA RSL	8.1E+00	DTSC-SL	8.2E+01	USEPA RSL	8.0E-02	OEHHA	2.3E-05	OEHHA	6.0E-03	PPRTV	1.0E+00	IRIS
Ethephon	16672-87-0	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	--	--
Ethion	563-12-2	--	--	3.2E+01	USEPA RSL	--	--	2.6E+02	DTSC-SL	--	--	--	--	5.0E-04	IRIS	--	--
Ethyl Ether	60-29-7	--	--	2.2E+03	DTSC-SL	--	--	1.0E+04	DTSC-SL	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route
Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5	--	--	6.3E-01	USEPA RSL	--	--	5.3E+00	DTSC-SL	--	--	--	--	1.0E-05	IRIS	--	--
Ethylene cyanohydrin	109-78-4	--	--	4.4E+03	USEPA RSL	--	--	3.7E+04	DTSC-SL	--	--	--	--	7.0E-02	PPRTV	--	--
Ethylene diamine	107-15-3	--	--	6.4E+03	DTSC-SL	--	--	7.7E+04	DTSC-SL	--	--	--	--	9.0E-02	PPRTV	3.6E+02	Route
Ethylene dibromide	106-93-4	3.6E-02	USEPA RSL	7.1E+00	DTSC-SL	1.6E-01	USEPA RSL	3.0E+01	DTSC-SL	2.0E+00	IRIS	6.0E-04	IRIS	9.0E-03	IRIS	8.0E-01	OEHHA
Ethylene glycol	107-21-1	--	--	1.3E+05	USEPA RSL	--	--	1.1E+06	DTSC-SL	--	--	--	--	2.0E+00	IRIS	4.0E+02	OEHHA
Ethylene thiourea	96-45-7	4.9E+00	DTSC-SL	5.1E+00	USEPA RSL	1.3E+01	DTSC-SL	4.2E+01	DTSC-SL	1.1E-01	HEAST	1.3E-05	OEHHA	8.0E-05	IRIS	--	--
Ethylphthalyl ethylglycolate	84-72-0	--	--	1.9E+05	USEPA RSL	--	--	1.6E+06	DTSC-SL	--	--	--	--	3.0E+00	IRIS	--	--
Fenamiphos	22224-92-6	--	--	1.6E+01	USEPA RSL	--	--	1.3E+02	DTSC-SL	--	--	--	--	2.5E-04	IRIS	--	--
Fenvalerate	51630-58-1	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Fluometuron	2164-17-2	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
Fluoranthene	206-44-0	--	--	2.4E+03	USEPA RSL	--	--	1.8E+04	DTSC-SL	--	--	--	--	4.0E-02	IRIS	--	--
Fluorene	86-73-7	--	--	2.3E+03	DTSC-SL	--	--	1.7E+04	DTSC-SL	--	--	--	--	4.0E-02	IRIS	1.6E+02	Route
Fluoridone	59756-60-4	--	--	5.1E+03	USEPA RSL	--	--	4.2E+04	DTSC-SL	--	--	--	--	8.0E-02	IRIS	--	--
Flurprimidol	56425-91-3	--	--	2.5E+03	USEPA RSL	--	--	2.1E+04	DTSC-SL	--	--	--	--	4.0E-02	RSL	--	--
Flusilazole	85509-19-9	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	RSL	--	--
Flutolanil	66332-96-5	--	--	3.2E+04	USEPA RSL	--	--	2.6E+05	DTSC-SL	--	--	--	--	5.0E-01	RSL	--	--
Fluvalinate	69409-94-5	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
Folpet	133-07-3	--	--	5.7E+03	USEPA RSL	--	--	4.8E+04	DTSC-SL	--	--	--	--	9.0E-02	RSL	--	--
Fomesafen	72178-02-0	--	--	1.6E+02	USEPA RSL	--	--	1.3E+03	DTSC-SL	--	--	--	--	2.5E-03	RSL	--	--
Fonofos	944-22-9	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	--	--
Formaldehyde	50-00-0	1.1E+01	DTSC-SL	7.0E+02	DTSC-SL	5.0E+01	DTSC-SL	3.0E+03	DTSC-SL	2.1E-02	OEHHA	1.3E-05	IRIS	2.0E-01	IRIS	9.0E+00	OEHHA
Fosetyl-al	39148-24-8	--	--	1.6E+05	USEPA RSL	--	--	1.3E+06	DTSC-SL	--	--	--	--	2.5E+00	RSL	--	--
Furan	110-00-9	--	--	9.5E+00	DTSC-SL	--	--	4.4E+01	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route
Furazolidone	67-45-8	1.4E-01	USEPA RSL	--	--	3.9E-01	DTSC-SL	--	--	3.8E+00	HEAST	--	--	--	--	--	--
Furium	531-82-8	3.6E-01	USEPA RSL	--	--	9.9E-01	DTSC-SL	--	--	1.5E+00	OEHHA	4.3E-04	OEHHA	--	--	--	--
Furmecyclox	60568-05-0	1.8E+01	USEPA RSL	--	--	4.9E+01	DTSC-SL	--	--	3.0E-02	IRIS	8.6E-06	OEHHA	--	--	--	--
gamma-HCH	58-89-9	5.7E-01	USEPA RSL	2.1E+01	USEPA RSL	2.0E+00	DTSC-SL	2.4E+02	DTSC-SL	1.1E+00	OEHHA	3.1E-04	OEHHA	3.0E-04	IRIS	--	--
Glufosinate-ammonium	77182-82-2	--	--	3.8E+02	USEPA RSL	--	--	3.2E+03	DTSC-SL	--	--	--	--	6.0E-03	RSL	--	--
Glutaraldehyde	111-30-8	--	--	6.0E+03	USEPA RSL	--	--	4.8E+04	DTSC-SL	--	--	--	--	1.0E-01	ATSDR	8.0E-02	OEHHA
Glyphosate	1071-83-6	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
Guanidine	113-00-8	--	--	6.9E+02	DTSC-SL	--	--	8.0E+03	DTSC-SL	--	--	--	--	1.0E-02	Screening PPRTV	4.0E+01	Route
Guanidine Chloride	50-01-1	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
Guanidine Nitrate	506-93-4	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	Screening PPRTV	--	--
Haloxypop-methyl	69806-40-2	--	--	3.2E+00	USEPA RSL	--	--	2.6E+01	DTSC-SL	--	--	--	--	5.0E-05	IRIS	--	--
HCH (mixed isomers)	608-73-1	1.4E-01	DTSC-SL	--	--	3.7E-01	DTSC-SL	--	--	4.0E+00	OEHHA	1.1E-03	OEHHA	--	--	--	--
Heptachlor	76-44-8	1.3E-01	USEPA RSL	3.8E+01	DTSC-SL	6.3E-01	USEPA RSL	5.1E+02	DTSC-SL	4.5E+00	IRIS	1.3E-03	IRIS	5.0E-04	IRIS	2.0E+00	Route
Heptachlor Epoxide	1024-57-3	7.0E-02	USEPA RSL	9.9E-01	DTSC-SL	3.3E-01	USEPA RSL	1.4E+01	DTSC-SL	9.1E+00	IRIS	2.6E-03	IRIS	1.3E-05	IRIS	5.2E-02	Route
Hexabromobenzene	87-82-1	--	--	1.5E+02	DTSC-SL	--	--	2.0E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route
Hexachlorobenzene	118-74-1	1.9E-01	DTSC-SL	4.9E+01	DTSC-SL	8.6E-01	DTSC-SL	4.7E+02	DTSC-SL	1.8E+00	OEHHA	5.1E-04	OEHHA	8.0E-04	IRIS	3.2E+00	Route
Hexachlorobutadiene	87-68-3	1.2E+00	USEPA RSL	2.9E+01	DTSC-SL	5.3E+00	USEPA RSL	1.6E+02	DTSC-SL	7.8E-02	IRIS	2.2E-05	IRIS	1.0E-03	PPRTV	4.0E+00	Route
HxCDDMixture	HxCDDMixture	1.0E-04	USEPA RSL	--	--	3.9E-04	DTSC-SL	--	--	6.2E+03	IRIS	3.8E+00	OEHHA	--	--	--	--
Hexachlorophene	70-30-4	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	--	--
Hexamethylphosphoramide	680-31-9	--	--	2.5E+01	USEPA RSL	--	--	2.1E+02	DTSC-SL	--	--	--	--	4.0E-04	PPRTV	--	--
Hexanedioic Acid	124-04-9	--	--	1.3E+05	USEPA RSL	--	--	1.1E+06	DTSC-SL	--	--	--	--	2.0E+00	PPRTV	--	--
Hexazinone	51235-04-2	--	--	2.1E+03	USEPA RSL	--	--	1.7E+04	DTSC-SL	--	--	--	--	3.3E-02	IRIS	--	--
Hexythiazox	78587-05-0	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
HMX	2691-41-0	--	--	3.9E+03	USEPA RSL	--	--	5.4E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--
Hydramethylnon	67485-29-4	--	--	1.1E+03	USEPA RSL	--	--	9.0E+03	DTSC-SL	--	--	--	--	1.7E-02	RSL	--	--
Hydrogen Chloride	7647-01-0	--	--	1.3E+07	DTSC-SL	--	--	5.4E+07	DTSC-SL	--	--	--	--	--	--	9.0E+00	OEHHA
Hydroquinone	123-31-9	9.0E+00	USEPA RSL	2.5E+03	USEPA RSL	2.5E+01	DTSC-SL	2.1E+04	DTSC-SL	6.0E-02	PPRTV	--	--	4.0E-02	PPRTV	--	--
Imazalil	35554-44-0	8.9E+00	USEPA RSL	1.6E+02	USEPA RSL	2.4E+01	DTSC-SL	1.3E+03	DTSC-SL	6.1E-02	RSL	--	--	2.5E-03	RSL	--	--
Imazaquin	81335-37-7	--	--	1.6E+04	USEPA RSL	--	--	1.3E+05	DTSC-SL	--	--	--	--	2.5E-01	IRIS	--	--
Imazethapyr	81335-77-5	--	--	1.6E+05	USEPA RSL	--	--	1.3E+06	DTSC-SL	--	--	--	--	2.5E+00	RSL	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Indeno[1,2,3-cd]pyrene	193-39-5	1.1E+00	USEPA RSL	--	--	1.3E+01	DTSC-SL	--	--	1.0E-01	RSL	1.1E-04	OEHHA	--	--	--	--
Iprodione	36734-19-7	--	--	2.5E+03	USEPA RSL	--	--	2.1E+04	DTSC-SL	--	--	--	--	4.0E-02	IRIS	--	--
Isobutanol	78-83-1	--	--	1.4E+04	DTSC-SL	--	--	1.0E+05	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route
Isophorone	78-59-1	5.7E+02	USEPA RSL	1.3E+04	USEPA RSL	1.6E+03	DTSC-SL	1.1E+05	DTSC-SL	9.5E-04	IRIS	--	--	2.0E-01	IRIS	2.0E+03	OEHHA
Isopropalin	33820-53-0	--	--	1.1E+03	DTSC-SL	--	--	1.5E+04	DTSC-SL	--	--	--	--	1.5E-02	IRIS	6.0E+01	Route
Isopropyl methyl phosphonic acid	1832-54-8	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
Isoxaben	82558-50-7	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--
Kepone	143-50-0	5.4E-02	USEPA RSL	1.9E+01	USEPA RSL	1.5E-01	DTSC-SL	1.6E+02	DTSC-SL	1.0E+01	IRIS	4.6E-03	OEHHA	3.0E-04	IRIS	--	--
Lactofen	77501-63-4	--	--	5.1E+02	USEPA RSL	--	--	4.2E+03	DTSC-SL	--	--	--	--	8.0E-03	RSL	--	--
Lactonitrile	78-97-7	--	--	1.3E+01	USEPA RSL	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-04	Screening PPRTV	--	--
Lead and Compounds ^c	7439-92-1	--	--	8.0E+01	DTSC-SL	--	--	3.2E+02	DTSC-SL	--	--	--	--	--	--	--	--
Lead acetate	301-04-2	1.9E+00	DTSC-SL	--	--	5.3E+00	DTSC-SL	--	--	2.8E-01	OEHHA	8.0E-05	OEHHA	--	--	--	--
Lead subacetate	1335-32-6	1.4E+01	DTSC-SL	--	--	3.9E+01	DTSC-SL	--	--	3.8E-02	OEHHA	1.1E-05	OEHHA	--	--	--	--
Lewisite	541-25-3	--	--	2.3E-01	DTSC-SL	--	--	1.6E+00	DTSC-SL	--	--	--	--	5.0E-06	PPRTV	2.0E-02	Route
Linuron	330-55-2	--	--	4.9E+02	USEPA RSL	--	--	4.1E+03	DTSC-SL	--	--	--	--	7.7E-03	RSL	--	--
Malathion	121-75-5	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Maleic anhydride	108-31-6	--	--	6.3E+03	USEPA RSL	--	--	5.2E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	7.0E-01	OEHHA
Maleic hydrazide	123-33-1	--	--	3.2E+04	USEPA RSL	--	--	2.6E+05	DTSC-SL	--	--	--	--	5.0E-01	IRIS	--	--
Malonitrile	109-77-3	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	PPRTV	--	--
m-Aminophenol	591-27-5	--	--	5.1E+03	USEPA RSL	--	--	4.2E+04	DTSC-SL	--	--	--	--	8.0E-02	PPRTV	--	--
Mancozeb	8018-01-7	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	HEAST	--	--
Maneb	12427-38-2	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	--	--
MCPA	94-74-6	--	--	3.2E+01	USEPA RSL	--	--	2.6E+02	DTSC-SL	--	--	--	--	5.0E-04	IRIS	--	--
Mecoprop	93-65-2	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
Mephosfolan	950-10-7	--	--	5.7E+00	USEPA RSL	--	--	4.8E+01	DTSC-SL	--	--	--	--	9.0E-05	HEAST	--	--
Mepiquat	24307-26-4	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Mercuric Chloride	7487-94-7	--	--	1.3E+01	DTSC-SL	--	--	1.9E+02	DTSC-SL	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA
Mercury	7439-97-6	--	--	1.0E+00	DTSC-SL	--	--	4.4E+00	DTSC-SL	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA
Merphos	150-50-5	--	--	2.3E+00	DTSC-SL	--	--	3.4E+01	DTSC-SL	--	--	--	--	3.0E-05	IRIS	1.2E-01	Route
Merphos oxide	78-48-8	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	RSL	--	--
Metalaxyl	57837-19-1	--	--	3.8E+03	USEPA RSL	--	--	3.2E+04	DTSC-SL	--	--	--	--	6.0E-02	IRIS	--	--
Methamidophos	10265-92-6	--	--	3.2E+00	USEPA RSL	--	--	2.6E+01	DTSC-SL	--	--	--	--	5.0E-05	IRIS	--	--
Methidathion	950-37-8	--	--	9.5E+01	USEPA RSL	--	--	7.9E+02	DTSC-SL	--	--	--	--	1.5E-03	RSL	--	--
Methomyl	16752-77-5	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Methoxychlor	72-43-5	--	--	3.2E+02	DTSC-SL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route
Methyl acetate	79-20-9	--	--	2.4E+04	DTSC-SL	--	--	1.3E+05	DTSC-SL	--	--	--	--	1.0E+00	Screening PPRTV	4.0E+03	Route
Methyl Parathion	298-00-0	--	--	1.6E+01	USEPA RSL	--	--	1.3E+02	DTSC-SL	--	--	--	--	2.5E-04	IRIS	--	--
Methyl styrene (alpha)	98-83-9	--	--	2.2E+03	DTSC-SL	--	--	1.3E+04	DTSC-SL	--	--	--	--	7.0E-02	HEAST	2.8E+02	Route
Methylarsonic acid	124-58-3	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	ATSDR	--	--
Methylcyclohexane	108-87-2	--	--	5.5E+03	DTSC-SL	--	--	2.3E+04	DTSC-SL	--	--	--	--	--	--	6.0E+03	Cyclohexane
Methylene Chloride	75-09-2	2.2E+00	DTSC-SL	3.1E+02	DTSC-SL	2.6E+01	DTSC-SL	2.5E+03	DTSC-SL	2.0E-03	IRIS	1.0E-06	OEHHA	6.0E-03	IRIS	4.0E+02	OEHHA
Methylene diphenyl diisocyanate	101-68-8	--	--	1.1E+05	DTSC-SL	--	--	4.8E+05	DTSC-SL	--	--	--	--	--	--	8.0E-02	OEHHA
Methylmethanesulfonate	66-27-3	5.5E+00	USEPA RSL	--	--	1.5E+01	DTSC-SL	--	--	9.9E-02	OEHHA	2.8E-05	OEHHA	--	--	--	--
Methylphenols	1319-77-3	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	ATSDR	6.0E+02	OEHHA
Methylphosphonic acid	993-13-5	--	--	3.8E+03	USEPA RSL	--	--	3.2E+04	DTSC-SL	--	--	--	--	6.0E-02	Screening PPRTV	--	--
Metolachlor	51218-45-2	--	--	9.5E+03	USEPA RSL	--	--	7.9E+04	DTSC-SL	--	--	--	--	1.5E-01	IRIS	--	--
Metribuzin	21087-64-9	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Metsulfuron-methyl	74223-64-6	--	--	1.6E+04	USEPA RSL	--	--	1.3E+05	DTSC-SL	--	--	--	--	2.5E-01	IRIS	--	--
Mineral oils (I)	8012-95-1	--	--	1.6E+04	DTSC-SL	--	--	7.1E+04	DTSC-SL	--	--	--	--	3.0E+00	PPRTV	1.2E+04	Route
Mirex	2385-85-5	3.6E-02	USEPA RSL	1.5E+01	DTSC-SL	1.7E-01	USEPA RSL	2.2E+02	DTSC-SL	1.8E+01	OEHHA	5.1E-03	OEHHA	2.0E-04	IRIS	8.0E-01	Route
Molinate	2212-67-1	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	--	--
Monomethylaniline	100-61-8	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	PPRTV	--	--
Myclobutanil	88671-89-0	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
N,N-Dimethylaniline	121-69-7	8.6E+00	DTSC-SL	9.8E+01	DTSC-SL	3.9E+01	DTSC-SL	7.5E+02	DTSC-SL	2.7E-02	PPRTV	6.8E-06	Route	2.0E-03	IRIS	8.0E+00	Route
Naled	300-76-5	--	--	1.2E+02	DTSC-SL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route
Naphthalene	91-20-3	2.0E+00	DTSC-SL	1.3E+02	USEPA RSL	6.5E+00	DTSC-SL	5.7E+02	DTSC-SL	1.2E-01	OEHHA	3.4E-05	OEHHA	2.0E-02	IRIS	3.0E+00	IRIS
Napropamide	15299-99-7	--	--	7.6E+03	USEPA RSL	--	--	6.4E+04	DTSC-SL	--	--	--	--	1.2E-01	RSL	--	--
n-Butyl alcohol	71-36-3	--	--	4.8E+03	DTSC-SL	--	--	3.6E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route
n-Butylbenzene	104-51-8	--	--	2.4E+03	DTSC-SL	--	--	1.8E+04	DTSC-SL	--	--	--	--	5.0E-02	PPRTV	2.0E+02	Route
Nickel	7440-02-0	1.5E+04	USEPA RSL	8.2E+02	DTSC-SL	6.4E+04	USEPA RSL	1.1E+04	DTSC-SL	--	--	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
Nickel Acetate	373-02-4	1.5E+04	USEPA RSL	6.7E+02	USEPA RSL	6.4E+04	USEPA RSL	5.4E+03	DTSC-SL	--	--	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
Nickel Carbonate	3333-67-3	1.5E+04	USEPA RSL	6.7E+02	USEPA RSL	6.4E+04	USEPA RSL	5.4E+03	DTSC-SL	--	--	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
Nickel refinery dust	E715532	1.5E+04	DTSC-SL	8.2E+02	USEPA RSL	6.4E+04	DTSC-SL	1.1E+04	USEPA RSL	--	--	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
Nickelocene	1271-28-9	6.0E-01	DTSC-SL	6.7E+02	USEPA RSL	1.6E+00	DTSC-SL	5.4E+03	DTSC-SL	9.1E-01	OEHHA	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
Nitrocellulose	9004-70-0	--	--	1.9E+08	USEPA RSL	--	--	1.6E+09	DTSC-SL	--	--	--	--	3.0E+03	PPRTV	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ⁹							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Nitrofurantoin	67-20-9	--	--	4.4E+03	USEPA RSL	--	--	3.7E+04	DTSC-SL	--	--	--	--	7.0E-02	HEAST	--	--
Nitrofurazone	59-87-0	4.2E-01	USEPA RSL	--	--	1.1E+00	DTSC-SL	--	--	1.3E+00	OEHHA	3.7E-04	OEHHA	--	--	--	--
Nitroglycerin	55-63-0	3.2E+01	USEPA RSL	6.3E+00	USEPA RSL	8.7E+01	DTSC-SL	5.3E+01	DTSC-SL	1.7E-02	PPRTV	--	--	1.0E-04	PPRTV	--	--
Nitroguanidine	556-88-7	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	IRIS	--	--
N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7	6.5E-02	USEPA RSL	--	--	1.8E-01	DTSC-SL	--	--	8.3E+00	OEHHA	2.4E-03	OEHHA	--	--	--	--
N-Nitrosodiethanolamine	1116-54-7	1.9E-01	USEPA RSL	--	--	5.3E-01	DTSC-SL	--	--	2.8E+00	IRIS	8.0E-04	OEHHA	--	--	--	--
N-Nitrosodiethylamine	55-18-5	8.1E-04	USEPA RSL	--	--	9.9E-03	DTSC-SL	--	--	1.5E+02	IRIS	4.3E-02	IRIS	--	--	--	--
N-Nitroso-di-n-butylamine	924-16-3	4.9E-02	DTSC-SL	--	--	2.3E-01	DTSC-SL	--	--	1.1E+01	OEHHA	3.1E-03	OEHHA	--	--	--	--
N-Nitrosodiphenylamine	86-30-6	1.1E+02	USEPA RSL	--	--	3.0E+02	DTSC-SL	--	--	4.9E-03	IRIS	2.6E-06	OEHHA	--	--	--	--
N-Nitrosodipropylamine	621-64-7	7.8E-02	USEPA RSL	--	--	2.1E-01	DTSC-SL	--	--	7.0E+00	IRIS	2.0E-03	OEHHA	--	--	--	--
N-Nitrosomorpholine	59-89-2	8.1E-02	USEPA RSL	--	--	2.2E-01	DTSC-SL	--	--	6.7E+00	OEHHA	1.9E-03	OEHHA	--	--	--	--
N-Nitroso-N-ethylurea	759-73-9	4.5E-03	USEPA RSL	--	--	5.5E-02	DTSC-SL	--	--	2.7E+01	OEHHA	7.7E-03	OEHHA	--	--	--	--
N-Nitroso-N-methylurea	684-93-5	1.0E-03	USEPA RSL	--	--	1.2E-02	DTSC-SL	--	--	1.2E+02	OEHHA	3.4E-02	OEHHA	--	--	--	--
N-Nitrosopiperidine	100-75-4	5.8E-02	USEPA RSL	--	--	1.6E-01	DTSC-SL	--	--	9.4E+00	OEHHA	2.7E-03	OEHHA	--	--	--	--
N-Nitrosopyrrolidine	930-55-2	2.6E-01	USEPA RSL	--	--	7.1E-01	DTSC-SL	--	--	2.1E+00	IRIS	6.1E-04	IRIS	--	--	--	--
Norflurazon	27314-13-2	--	--	9.5E+02	USEPA RSL	--	--	7.9E+03	DTSC-SL	--	--	--	--	1.5E-02	RSL	--	--
o-Aminophenol	95-55-6	--	--	2.5E+02	USEPA RSL	--	--	2.1E+03	DTSC-SL	--	--	--	--	4.0E-03	screening PPRTV	--	--
Octabromodiphenyl Ethers	32536-52-0	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	IRIS	--	--
Octamethylpyrophosphoramide	152-16-9	--	--	1.3E+02	USEPA RSL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	HEAST	--	--
Oryzalin	19044-88-3	7.0E+01	USEPA RSL	8.8E+03	USEPA RSL	1.9E+02	DTSC-SL	7.4E+04	DTSC-SL	7.8E-03	RSL	--	--	1.4E-01	RSL	--	--
o-Toluidine	95-53-4	3.0E+00	DTSC-SL	--	--	8.2E+00	DTSC-SL	--	--	1.8E-01	OEHHA	5.1E-05	OEHHA	--	--	--	--
Oxadiazon	19666-30-9	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	--	--
Oxamyl	23135-22-0	--	--	1.6E+03	USEPA RSL	--	--	1.3E+04	DTSC-SL	--	--	--	--	2.5E-02	IRIS	--	--
Oxyfluorfen	42874-03-3	7.4E+00	USEPA RSL	1.9E+03	USEPA RSL	2.0E+01	DTSC-SL	1.6E+04	DTSC-SL	7.3E-02	RSL	--	--	3.0E-02	RSL	--	--
p,a,a,a-Tetrachlorotoluene	5216-25-1	2.2E-02	DTSC-SL	--	--	1.0E-01	DTSC-SL	--	--	2.0E+01	HEAST	5.0E-03	Route	--	--	--	--
Paclbutrazol	76738-62-0	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
p-Aminophenol	123-30-8	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
Paraquat dichloride	1910-42-5	--	--	2.8E+02	USEPA RSL	--	--	2.4E+03	DTSC-SL	--	--	--	--	4.5E-03	IRIS	--	--
Parathion	56-38-2	--	--	3.8E+02	USEPA RSL	--	--	3.2E+03	DTSC-SL	--	--	--	--	6.0E-03	HEAST	--	--
PCB-077	32598-13-3	3.8E-02	USEPA RSL	4.1E-01	USEPA RSL	9.4E-02	DTSC-SL	3.0E+00	DTSC-SL	1.3E+01	OEHHA	3.8E-03	OEHHA	7.0E-06	RSL	4.0E-01	OEHHA
PCB-081	70362-50-4	1.2E-02	USEPA RSL	1.3E-01	USEPA RSL	3.0E-02	DTSC-SL	1.0E+00	DTSC-SL	3.9E+01	OEHHA	1.1E-02	OEHHA	2.3E-06	RSL	1.3E-01	OEHHA
PCB-105	32598-14-4	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-114	74472-37-0	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-118	31508-00-6	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-123	65510-44-3	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-126	57465-28-8	3.6E-05	USEPA RSL	4.1E-04	USEPA RSL	9.0E-05	DTSC-SL	3.0E-03	DTSC-SL	1.3E+04	OEHHA	3.8E+00	OEHHA	7.0E-09	RSL	4.0E-04	OEHHA
PCB-156	38380-08-4	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-157	69782-90-7	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.0E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-167	52663-72-6	1.2E-01	USEPA RSL	1.3E+00	USEPA RSL	3.1E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCB-169	32774-16-6	1.2E-04	USEPA RSL	1.3E-03	USEPA RSL	3.1E-04	DTSC-SL	1.0E-02	DTSC-SL	3.9E+03	OEHHA	1.1E+00	OEHHA	2.3E-08	RSL	1.3E-03	OEHHA
PCB-189	39635-31-9	1.3E-01	USEPA RSL	1.3E+00	USEPA RSL	3.1E-01	DTSC-SL	1.0E+01	DTSC-SL	3.9E+00	OEHHA	1.1E-03	OEHHA	2.3E-05	RSL	1.3E+00	OEHHA
PCBs (Total)	1336-36-3	2.3E-01	USEPA RSL	--	--	5.8E-01	DTSC-SL	--	--	2.0E+00	IRIS	5.7E-04	IRIS	--	--	--	--
p-Chlorobenzene sulfonic acid	98-66-8	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	Screening PPRTV	--	--
p-Chlorobenzoic acid	74-11-3	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	Screening PPRTV	--	--
p-Chloro-o-toluidine	95-69-2	2.0E+00	DTSC-SL	1.9E+02	USEPA RSL	5.5E+00	DTSC-SL	1.6E+03	DTSC-SL	2.7E-01	OEHHA	7.7E-05	OEHHA	3.0E-03	Screening PPRTV	--	--
Pebulate	1114-71-2	--	--	2.8E+03	DTSC-SL	--	--	2.4E+04	DTSC-SL	--	--	--	--	5.0E-02	HEAST	2.0E+02	Route
Pendimethalin	40487-42-1	--	--	1.9E+04	USEPA RSL	--	--	1.6E+05	DTSC-SL	--	--	--	--	3.0E-01	RSL	--	--
Pentabromo-6-chloro cyclohexane	87-84-3	2.7E+01	USEPA RSL	1.3E+03	USEPA RSL	7.4E+01	DTSC-SL	1.1E+04	DTSC-SL	2.0E-02	Screening PPRTV	--	--	2.0E-02	Screening PPRTV	--	--
Pentabromodiphenyl Ethers	32534-81-9	--	--	1.5E+02	DTSC-SL	--	--	2.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route
Pentachlorobenzene	608-93-5	--	--	5.1E+01	DTSC-SL	--	--	5.1E+02	DTSC-SL	--	--	--	--	8.0E-04	IRIS	3.2E+00	Route
Pentachloroethane	76-01-7	1.0E+00	DTSC-SL	--	--	4.6E+00	DTSC-SL	--	--	9.0E-02	PPRTV	2.3E-05	Route	--	--	--	--
Pentachloronitrobenzene	82-68-8	2.3E+00	DTSC-SL	2.2E+02	DTSC-SL	1.1E+01	DTSC-SL	3.0E+03	DTSC-SL	2.6E-01	HEAST	6.5E-05	Route	3.0E-03	IRIS	1.2E+01	Route
Pentachlorophenol	87-86-5	1.0E+00	USEPA RSL	2.5E+02	USEPA RSL	2.0E+00	DTSC-SL	1.5E+03	DTSC-SL	4.0E-01	IRIS	5.1E-06	OEHHA	5.0E-03	IRIS	--	--
Pentaerythritol tetranitrate (PETN)	78-11-5	1.4E+02	USEPA RSL	1.3E+02	USEPA RSL	3.7E+02	DTSC-SL	1.1E+03	DTSC-SL	4.0E-03	Screening PPRTV	--	--	2.0E-03	PPRTV	--	--
Perfluorobutane sulfonic acid	375-73-5	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
Perfluorobutanesulfonate	45187-15-3	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
Permethrin	52645-53-1	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--
Phenacetin	62-44-2	2.5E+02	USEPA RSL	--	--	6.7E+02	DTSC-SL	--	--	2.2E-03	OEHHA	6.3E-07	OEHHA	--	--	--	--
Phenmedipham	13684-63-4	--	--	1.5E+04	USEPA RSL	--	--	1.3E+05	DTSC-SL	--	--	--	--	2.4E-01	RSL	--	--
Phenol	108-95-2	--	--	1.9E+04	USEPA RSL	--	--	1.6E+05	DTSC-SL	--	--	--	--	3.0E-01	IRIS	2.0E+02	OEHHA
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	--	--	2.5E+02	USEPA RSL	--	--	2.1E+03	DTSC-SL	--	--	--	--	4.0E-03	IRIS	--	--
Phenothiazine	92-84-2	--	--	3.2E+01	USEPA RSL	--	--	2.6E+02	DTSC-SL	--	--	--	--	5.0E-04	Screening PPRTV	--	--
Phenyl Isothiocyanate	103-72-0	--	--	4.3E+00	DTSC-SL	--	--	2.2E+01	DTSC-SL	--	--	--	--	2.0E-04	Screening PPRTV	8.0E-01	Route
Phenylmercaptan	108-98-5	--	--	4.0E+01	DTSC-SL	--	--	2.6E+02	DTSC-SL	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route
Phenylmercuric acetate	62-38-4	--	--	5.1E+00	USEPA RSL	--	--	4.2E+01	DTSC-SL	--	--	--	--	8.0E-05	IRIS	--	--

Table 1. DTSC-Recommended Screening Levels for Soil¹

Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ²							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Phorate	298-02-2	--	--	1.3E+01	USEPA RSL	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-04	HEAST	--	--
Phosmet	732-11-6	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Phosphorus, White	7723-14-0	--	--	4.2E-01	DTSC-SL	--	--	2.2E+00	DTSC-SL	--	--	--	--	2.0E-05	IRIS	8.0E-02	Route
Phthalic anhydride	85-44-9	--	--	1.3E+05	USEPA RSL	--	--	1.0E+06	DTSC-SL	--	--	--	--	2.0E+00	IRIS	2.0E+01	OEHHA
Picloram	1918-02-1	--	--	4.4E+03	USEPA RSL	--	--	3.7E+04	DTSC-SL	--	--	--	--	7.0E-02	IRIS	--	--
Picramic Acid	96-91-3	--	--	6.3E+00	USEPA RSL	--	--	5.3E+01	DTSC-SL	--	--	--	--	1.0E-04	Screening PPRTV	--	--
Picric Acid	88-89-1	--	--	5.7E+01	USEPA RSL	--	--	4.8E+02	DTSC-SL	--	--	--	--	9.0E-04	Screening PPRTV	--	--
Pirimphos-methyl	29232-93-7	--	--	4.4E+00	USEPA RSL	--	--	3.7E+01	DTSC-SL	--	--	--	--	7.0E-05	RSL	--	--
Polybrominated Biphenyls (BP-6)	59536-65-1	1.8E-02	USEPA RSL	4.4E-01	USEPA RSL	4.9E-02	DTSC-SL	3.7E+00	DTSC-SL	3.0E+01	OEHHA	8.6E-03	OEHHA	7.0E-06	HEAST	--	--
Polymeric methylenediphenyl diisocyanate	9016-87-9	--	--	1.1E+05	DTSC-SL	--	--	4.8E+05	DTSC-SL	--	--	--	--	--	--	8.0E-02	OEHHA
Potassium Perfluorobutane Sulfonate	29420-49-3	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
p-Phthalic acid	100-21-0	--	--	6.3E+04	USEPA RSL	--	--	5.3E+05	DTSC-SL	--	--	--	--	1.0E+00	HEAST	--	--
Prochloraz	67747-09-5	3.6E+00	USEPA RSL	5.7E+02	USEPA RSL	9.9E+00	DTSC-SL	4.8E+03	DTSC-SL	1.5E-01	IRIS	--	--	9.0E-03	IRIS	--	--
Profluralin	26399-36-0	--	--	4.5E+02	DTSC-SL	--	--	6.0E+03	DTSC-SL	--	--	--	--	6.0E-03	HEAST	2.4E+01	Route
Prometon	1610-18-0	--	--	9.5E+02	USEPA RSL	--	--	7.9E+03	DTSC-SL	--	--	--	--	1.5E-02	IRIS	--	--
Prometryn	7287-19-6	--	--	2.5E+03	USEPA RSL	--	--	2.1E+04	DTSC-SL	--	--	--	--	4.0E-02	RSL	--	--
Propachlor	1918-16-7	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
Propanil	709-98-8	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	IRIS	--	--
Propargite	2312-35-8	2.8E+00	USEPA RSL	2.5E+03	USEPA RSL	7.7E+00	DTSC-SL	2.1E+04	DTSC-SL	1.9E-01	RSL	--	--	4.0E-02	RSL	--	--
Propargyl alcohol	107-19-7	--	--	1.2E+02	DTSC-SL	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route
Propazine	139-40-2	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Propham	122-42-9	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	IRIS	--	--
Propiconazole	60207-90-1	--	--	6.3E+03	USEPA RSL	--	--	5.3E+04	DTSC-SL	--	--	--	--	1.0E-01	RSL	--	--
Propylene glycol	57-55-6	--	--	1.3E+06	USEPA RSL	--	--	1.1E+07	DTSC-SL	--	--	--	--	2.0E+01	PPRTV	--	--
Propyzamide	23950-58-5	--	--	4.7E+03	USEPA RSL	--	--	4.0E+04	DTSC-SL	--	--	--	--	7.5E-02	IRIS	--	--
p-Toluic Acid	99-94-5	--	--	3.2E+02	USEPA RSL	--	--	2.6E+03	DTSC-SL	--	--	--	--	5.0E-03	PPRTV	--	--
p-Toluidine	106-49-0	1.8E+01	USEPA RSL	2.5E+02	USEPA RSL	4.9E+01	DTSC-SL	2.1E+03	DTSC-SL	3.0E-02	PPRTV	--	--	4.0E-03	Screening PPRTV	--	--
Pyrene	129-00-0	--	--	1.8E+03	DTSC-SL	--	--	1.3E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	1.2E+02	Route
Pyridine	110-86-1	--	--	5.8E+01	DTSC-SL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route
Quinalphos	13593-03-8	--	--	3.2E+01	USEPA RSL	--	--	2.6E+02	DTSC-SL	--	--	--	--	5.0E-04	IRIS	--	--
Quinoline	91-22-5	1.8E-01	USEPA RSL	--	--	4.9E-01	DTSC-SL	--	--	3.0E+00	IRIS	--	--	--	--	--	--
Quizalofop-ethyl	76578-14-8	--	--	5.7E+02	USEPA RSL	--	--	4.8E+03	DTSC-SL	--	--	--	--	9.0E-03	IRIS	--	--
RDX	121-82-4	8.3E+00	USEPA RSL	3.0E+02	USEPA RSL	3.5E+01	DTSC-SL	4.0E+03	DTSC-SL	8.0E-02	IRIS	--	--	4.0E-03	IRIS	--	--
Resmethrin	10453-86-8	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	IRIS	--	--
Ronnel	299-84-3	--	--	3.8E+03	DTSC-SL	--	--	5.1E+04	DTSC-SL	--	--	--	--	5.0E-02	HEAST	2.0E+02	Route
Rotenone	83-79-4	--	--	2.5E+02	USEPA RSL	--	--	2.1E+03	DTSC-SL	--	--	--	--	4.0E-03	IRIS	--	--
Safrole	94-59-7	5.5E-01	USEPA RSL	--	--	6.7E+00	DTSC-SL	--	--	2.2E-01	OEHHA	6.3E-05	OEHHA	--	--	--	--
sec-Butylbenzene	135-98-8	--	--	2.2E+03	DTSC-SL	--	--	1.2E+04	DTSC-SL	--	--	--	--	1.0E-01	Screening PPRTV	4.0E+02	Route
Sethoxydim	74051-80-2	--	--	8.8E+03	USEPA RSL	--	--	7.4E+04	DTSC-SL	--	--	--	--	1.4E-01	RSL	--	--
S-Ethyl dpropylthiocarbamate	759-94-4	--	--	3.4E+03	DTSC-SL	--	--	3.7E+04	DTSC-SL	--	--	--	--	5.0E-02	RSL	2.0E+02	Route
Silvex	93-72-1	--	--	5.1E+02	USEPA RSL	--	--	4.2E+03	DTSC-SL	--	--	--	--	8.0E-03	IRIS	--	--
Simazine	122-34-9	4.5E+00	USEPA RSL	3.2E+02	USEPA RSL	1.2E+01	DTSC-SL	2.6E+03	DTSC-SL	1.2E-01	HEAST	--	--	5.0E-03	IRIS	--	--
Sodium diethyldithiocarbamate	148-18-5	2.0E+00	USEPA RSL	1.9E+03	USEPA RSL	5.5E+00	DTSC-SL	1.6E+04	DTSC-SL	2.7E-01	HEAST	--	--	3.0E-02	IRIS	--	--
Sodium fluoroacetate	62-74-8	--	--	1.3E+00	USEPA RSL	--	--	1.1E+01	DTSC-SL	--	--	--	--	2.0E-05	IRIS	--	--
Stirofos	961-11-5	2.3E+01	USEPA RSL	1.9E+03	USEPA RSL	6.2E+01	DTSC-SL	1.6E+04	DTSC-SL	2.4E-02	HEAST	--	--	3.0E-02	IRIS	--	--
Strychnine	57-24-9	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	--	--
Styrene	100-42-5	--	--	5.6E+03	DTSC-SL	--	--	3.2E+04	DTSC-SL	--	--	--	--	2.0E-01	IRIS	9.0E+02	OEHHA
Styrene-Acrylonitrile Trimer	SAN Trimer	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	PPRTV	--	--
Sulfolane	126-33-0	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	PPRTV	2.0E+00	PPRTV
Tebuthiuron	34014-18-1	--	--	4.4E+03	USEPA RSL	--	--	3.7E+04	DTSC-SL	--	--	--	--	7.0E-02	IRIS	--	--
Temphos	3383-96-8	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	HEAST	--	--
Terbacil	5902-51-2	--	--	8.2E+02	USEPA RSL	--	--	6.9E+03	DTSC-SL	--	--	--	--	1.3E-02	IRIS	--	--
Terbufos	13071-79-9	--	--	1.8E+00	DTSC-SL	--	--	2.3E+01	DTSC-SL	--	--	--	--	2.5E-05	HEAST	1.0E-01	Route
Terbutryn	886-50-0	--	--	6.3E+01	USEPA RSL	--	--	5.3E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	--	--
tert-Butylbenzene	98-06-6	--	--	2.2E+03	DTSC-SL	--	--	1.2E+04	DTSC-SL	--	--	--	--	1.0E-01	Screening PPRTV	4.0E+02	Route
Tetrachloroethene	127-18-4	5.9E-01	DTSC-SL	8.1E+01	USEPA RSL	2.7E+00	DTSC-SL	3.9E+02	USEPA RSL	5.4E-01	OEHHA	6.1E-06	OEHHA	6.0E-03	IRIS	4.0E+01	IRIS
Tetraethyl Lead	78-00-2	--	--	7.2E-04	DTSC-SL	--	--	3.3E-03	DTSC-SL	--	--	--	--	1.0E-07	IRIS	4.0E-04	Route
Tetraethyldithiopyrophosphate	3689-24-5	--	--	3.2E+01	USEPA RSL	--	--	2.6E+02	DTSC-SL	--	--	--	--	5.0E-04	IRIS	--	--
Tetrahydrofuran	109-99-9	--	--	1.8E+04	USEPA RSL	--	--	9.2E+04	DTSC-SL	--	--	--	--	9.0E-01	IRIS	2.0E+03	IRIS
Tetryl	479-45-8	--	--	1.6E+02	USEPA RSL	--	--	2.3E+03	DTSC-SL	--	--	--	--	2.0E-03	PPRTV	--	--
Thallium acetate	563-68-8	--	--	7.8E-01	DTSC-SL	--	--	1.2E+01	DTSC-SL	--	--	--	--	1.0E-05	Screening PPRTV	4.0E-02	Route
Thallium carbonate	6533-73-9	--	--	1.6E+00	USEPA RSL	--	--	2.3E+01	DTSC-SL	--	--	--	--	2.0E-05	Screening PPRTV	8.0E-02	Route
Thifensulfuron-methyl	79277-27-3	--	--	2.7E+03	USEPA RSL	--	--	2.3E+04	DTSC-SL	--	--	--	--	4.3E-02	RSL	--	--
Thiobencarb	28249-77-6	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
Thiocyanic acid	463-56-9	--	--	1.6E+01	USEPA RSL	--	--	2.3E+02	DTSC-SL	--	--	--	--	2.0E-04	PPRTV	8.0E-01	Route

APRIL 2019		Table 1. DTSC-Recommended Screening Levels for Soil ^a															
Analyte	CAS #	Screening Levels for Residential Soil (mg/kg)				Screening Levels for Commercial/Industrial Soil (mg/kg)				Toxicity Factors for Screening Levels ^b							
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source	SFo (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Thiocyanic acid (2-benzothiazolylthio)methyl ester	21564-17-0	--	--	1.9E+03	USEPA RSL	--	--	1.6E+04	DTSC-SL	--	--	--	--	3.0E-02	HEAST	--	--
Thiodiglycol	111-48-8	--	--	5.4E+03	USEPA RSL	--	--	7.5E+04	DTSC-SL	--	--	--	--	7.0E-02	Screening PPRTV	--	--
Thiofanox	39196-18-4	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	HEAST	--	--
Thiophanate-methyl	23564-05-8	4.7E+01	USEPA RSL	1.7E+03	USEPA RSL	1.3E+02	DTSC-SL	1.4E+04	DTSC-SL	1.2E-02	RSL	--	--	2.7E-02	RSL	--	--
Thiram	137-26-8	--	--	9.5E+02	USEPA RSL	--	--	7.9E+03	DTSC-SL	--	--	--	--	1.5E-02	RSL	--	--
Toluene	108-88-3	--	--	1.1E+03	DTSC-SL	--	--	5.3E+03	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.0E+02	OEHHA
Toluene-2,4-diisocyanate	584-84-9	1.6E+01	DTSC-SL	6.4E+00	USEPA RSL	7.6E+01	DTSC-SL	2.7E+01	USEPA RSL	3.9E-02	OEHHA	1.1E-05	OEHHA	--	--	8.0E-03	OEHHA
Toluene-2,5-diamine	95-70-5	3.0E+00	USEPA RSL	1.3E+01	USEPA RSL	8.2E+00	DTSC-SL	1.1E+02	DTSC-SL	1.8E-01	Screening PPRTV	--	--	2.0E-04	Screening PPRTV	--	--
Toluene-2,6-diisocyanate	91-08-7	1.6E+01	DTSC-SL	5.3E+00	USEPA RSL	7.5E+01	DTSC-SL	2.2E+01	USEPA RSL	3.9E-02	OEHHA	1.1E-05	OEHHA	--	--	8.0E-03	OEHHA
Toxaphene	8001-35-2	4.5E-01	DTSC-SL	5.7E+00	USEPA RSL	1.2E+00	DTSC-SL	4.8E+01	DTSC-SL	1.2E+00	OEHHA	3.2E-04	IRIS	9.0E-05	PPRTV	--	--
TPH (C17-C32 aromatic high)	E1790676	--	--	2.5E+03	USEPA RSL	--	--	2.1E+04	DTSC-SL	--	--	--	--	4.0E-02	PPRTV	--	--
Tralothrin	66841-25-6	--	--	4.7E+02	USEPA RSL	--	--	4.0E+03	DTSC-SL	--	--	--	--	7.5E-03	IRIS	--	--
trans-1,2-Dichloroethene	156-60-5	--	--	1.3E+02	DTSC-SL	--	--	6.0E+02	DTSC-SL	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route
trans-Crotonaldehyde	123-73-9	8.6E-02	DTSC-SL	3.9E+01	DTSC-SL	3.8E-01	DTSC-SL	2.6E+02	DTSC-SL	1.9E+00	HEAST	4.8E-04	Route	1.0E-03	PPRTV	4.0E+00	Route
Triacetin	102-76-1	--	--	<i>5.1E+06</i>	USEPA RSL	--	--	4.2E+07	DTSC-SL	--	--	--	--	8.0E+01	Screening PPRTV	--	--
Triadimefon	43121-43-3	--	--	2.1E+03	USEPA RSL	--	--	1.8E+04	DTSC-SL	--	--	--	--	3.4E-02	RSL	--	--
Triallate	2303-17-5	8.2E+00	DTSC-SL	1.9E+03	DTSC-SL	3.8E+01	DTSC-SL	2.5E+04	DTSC-SL	7.2E-02	RSL	1.8E-05	Route	2.5E-02	RSL	1.0E+02	Route
Triasulfuron	82097-50-5	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	IRIS	--	--
Tribenuron-methyl	101200-48-0	--	--	5.1E+02	USEPA RSL	--	--	4.2E+03	DTSC-SL	--	--	--	--	8.0E-03	IRIS	--	--
Tributyl phosphate	126-73-8	6.0E+01	USEPA RSL	6.3E+02	USEPA RSL	1.6E+02	DTSC-SL	5.3E+03	DTSC-SL	9.0E-03	PPRTV	--	--	1.0E-02	PPRTV	--	--
Tributyltin	688-73-3	--	--	3.6E+00	DTSC-SL	--	--	1.7E+01	DTSC-SL	--	--	--	--	3.0E-04	PPRTV	1.2E+00	Route
Tributyltin Compounds	E1790678	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	PPRTV	--	--
Tributyltin oxide	56-35-9	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	--	--
Trichloroacetic acid	76-03-9	7.8E+00	USEPA RSL	1.3E+03	USEPA RSL	2.1E+01	DTSC-SL	1.1E+04	DTSC-SL	7.0E-02	IRIS	--	--	2.0E-02	IRIS	--	--
Trichlorofluoromethane	75-69-4	--	--	1.2E+03	DTSC-SL	--	--	5.4E+03	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route
Tricresyl Phosphates	1330-78-5	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	ATSDR	--	--
Tridiphane	58138-08-2	--	--	1.9E+02	USEPA RSL	--	--	1.6E+03	DTSC-SL	--	--	--	--	3.0E-03	IRIS	--	--
Triethyleneglycol	112-27-6	--	--	1.3E+05	USEPA RSL	--	--	<i>1.1E+06</i>	DTSC-SL	--	--	--	--	2.0E+00	PPRTV	--	--
Trifluralin	1582-09-8	8.1E+01	DTSC-SL	5.7E+02	DTSC-SL	3.8E+02	DTSC-SL	7.8E+03	DTSC-SL	7.7E-03	IRIS	1.9E-06	Route	7.5E-03	IRIS	3.0E+01	Route
Trimethyl phosphate	512-56-1	2.7E+01	USEPA RSL	6.3E+02	USEPA RSL	7.4E+01	DTSC-SL	5.3E+03	DTSC-SL	2.0E-02	PPRTV	--	--	1.0E-02	PPRTV	--	--
Triphenylphosphine oxide	791-28-6	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	--	--
Tris(1,3-dichloro-2-propyl)phosphate	13674-87-8	--	--	1.3E+03	USEPA RSL	--	--	1.1E+04	DTSC-SL	--	--	--	--	2.0E-02	ATSDR	--	--
Tris(1-chloro-2-propyl)phosphate	13674-84-5	--	--	6.3E+02	USEPA RSL	--	--	5.3E+03	DTSC-SL	--	--	--	--	1.0E-02	Screening PPRTV	--	--
Tris(2-chloroethyl)phosphate	115-96-8	2.7E+01	USEPA RSL	4.4E+02	USEPA RSL	7.4E+01	DTSC-SL	3.7E+03	DTSC-SL	2.0E-02	PPRTV	--	--	7.0E-03	PPRTV	--	--
Tris(2-ethylhexyl)phosphate	78-42-2	1.7E+02	USEPA RSL	6.3E+03	USEPA RSL	4.6E+02	DTSC-SL	5.3E+04	DTSC-SL	3.2E-03	PPRTV	--	--	1.0E-01	PPRTV	--	--
Urethane	51-79-6	1.2E-01	USEPA RSL	--	--	1.5E+00	DTSC-SL	--	--	1.0E+00	OEHHA	2.9E-04	OEHHA	--	--	--	--
Vernam	1929-77-7	--	--	6.8E+01	DTSC-SL	--	--	7.6E+02	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route
Vinlozolin	50471-44-8	--	--	7.6E+01	USEPA RSL	--	--	6.4E+02	DTSC-SL	--	--	--	--	1.2E-03	RSL	--	--
Vinyl chloride	75-01-4	8.2E-03	DTSC-SL	7.0E+01	USEPA RSL	1.5E-01	DTSC-SL	3.7E+02	USEPA RSL	7.2E-01	IRIS	7.8E-05	OEHHA	3.0E-03	IRIS	1.0E+02	IRIS
Warfarin	81-81-2	--	--	1.9E+01	USEPA RSL	--	--	1.6E+02	DTSC-SL	--	--	--	--	3.0E-04	IRIS	--	--
Zineb	12122-67-7	--	--	3.2E+03	USEPA RSL	--	--	2.6E+04	DTSC-SL	--	--	--	--	5.0E-02	IRIS	--	--

^a Summarized from Appendix A, Table A-1. USEPA RSLs are provided for completeness when there is no DTSC-SL for a combination of receptor and endpoint;

"--" = no value.

^b See HHRA Note 10 for details concerning selection of toxicity values.

^c Screening levels for lead are derived differently than other risk-based screening levels; see the text discussion for details.

Bold values indicate a concentration in excess of the soil saturation concentration
Italicized values indicate a concentration in excess of 10% by weight (100,000 mg/kg)

(mg/kg-d)⁻¹ = per (milligram per kilogram--day)

(µg/m³)⁻¹ = per (microgram per cubic meter)

µg/m³ = micrograms per cubic meter

ATSDR = Agency for Toxic Substances and Disease Registry

CAS# = Chemical Abstracts Service Registry Number

DTSC = California Department of Toxic Substances Control

HEAST = Health Effects Assessment Summary Tables

IRIS = USEPA's *Integrated Risk Information System*

IUR = inhalation unit-risk factor

mg/kg = milligrams per kilogram

mg/kg-d = milligrams per kilogram--day

OEHHA = California Office of Environmental Health Hazard Assessment

PHG = Public Health Goal toxicity factor

PPRTV = provisional peer-reviewed toxicity value

RfC = reference concentration

REL = reference exposure level

RfDo = oral reference dose

Route = route extrapolation from an oral toxicity value to an inhalation toxicity value:

$$IUR\ (\mu\text{g}/\text{m}^3)^{-1} = SFo\ (\text{mg}/\text{kg}\cdot\text{day})^{-1} \times (1/80\ \text{kg}) \times 20\ \text{m}^3/\text{day} \times 0.001\ \text{mg}/\mu\text{g}$$

$$RfC\ (\mu\text{g}/\text{m}^3) = RfDo\ (\text{mg}/\text{kg}\cdot\text{day}) \times 80\ \text{kg} \times (1\ \text{day}/20\ \text{m}^3) \times 1000\ \mu\text{g}/\text{mg}$$

RSL = Regional Screening Level

SFo = oral slope factor

SL = screening level

USEPA = U.S. Environmental Protection Agency

Table 2. DTSC-Recommended Screening Levels for Tap Water^a

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Toxicity Factors for DTSC Screening Levels ^b							
		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	SFO (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
1,1,1,2-Tetrachloroethane	630-20-6	5.7E-01	USEPA RSL	1.6E+02	DTSC-SL	2.6E-02	IRIS	7.4E-06	IRIS	3.0E-02	IRIS	1.2E+02	Route (IRIS)
1,1,1-Trichloroethane	71-55-6	--	--	2.0E+03	DTSC-SL	--	--	--	--	2.0E+00	IRIS	1.0E+03	OEHHA
1,1,2,2-Tetrachloroethane	79-34-5	7.6E-02	USEPA RSL	1.1E+02	DTSC-SL	2.0E-01	IRIS	5.8E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route (IRIS)
1,1,2-Trichloropropane	598-77-6	--	--	2.8E+01	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route (IRIS)
1,1-Dichloroethane	75-34-3	2.8E+00	USEPA RSL	1.2E+03	DTSC-SL	5.7E-03	OEHHA	1.6E-06	OEHHA	2.0E-01	PPRTV	8.0E+02	Route (PPRTV)
1,1-Dichloroethene	75-35-4	--	--	1.3E+02	DTSC-SL	--	--	--	--	5.0E-02	IRIS	7.0E+01	OEHHA
1,2,3-Trichlorobenzene	87-61-6	--	--	3.4E+00	DTSC-SL	--	--	--	--	8.0E-04	sPPRTV	3.2E+00	Route (sPPRTV)
1,2,3-Trichloropropane	96-18-4	2.0E-04	DTSC-SL	6.2E-01	USEPA RSL	3.0E+01	IRIS	7.5E-03	Route (IRIS)	4.0E-03	IRIS	3.0E-01	IRIS
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	1.0E+00	DTSC-SL	--	--	--	--	3.0E-04	IRIS	1.2E+00	Route (IRIS)
1,2,4-Tribromobenzene	615-54-3	--	--	2.2E+01	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route (IRIS)
1,2,4-Trichlorobenzene	120-82-1	4.6E-01	DTSC-SL	4.0E+00	USEPA RSL	2.9E-02	PPRTV	7.3E-06	Route (PPRTV)	1.0E-02	IRIS	2.0E+00	PPRTV
1,2-Dibromo-3-chloropropane	96-12-8	3.0E-04	DTSC-SL	3.7E-01	USEPA RSL	7.0E+00	OEHHA	6.0E-03	PPRTV	2.0E-04	PPRTV	2.0E-01	IRIS
1,3-Dibromobenzene	108-36-1	--	--	2.0E+00	DTSC-SL	--	--	--	--	4.0E-04	sPPRTV	1.6E+00	Route (sPPRTV)
1,3-Dichloropropane	142-28-9	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route (PPRTV)
1,4-Dibromobenzene	106-37-6	--	--	5.1E+01	DTSC-SL	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route (IRIS)
1,4-Dithiane	505-29-3	--	--	5.9E+01	DTSC-SL	--	--	--	--	1.0E-02	IRIS	4.0E+01	Route (IRIS)
1-Bromo-3-fluorobenzene	1073-06-9	--	--	1.7E+00	DTSC-SL	--	--	--	--	3.0E-04	sPPRTV	1.2E+00	Route (sPPRTV)
1-Bromo-4-fluorobenzene	460-00-4	--	--	1.6E+00	DTSC-SL	--	--	--	--	3.0E-04	sPPRTV	1.2E+00	Route (sPPRTV)
1-Chlorobutane	109-69-3	--	--	2.2E+02	DTSC-SL	--	--	--	--	4.0E-02	PPRTV	1.6E+02	Route (PPRTV)
1-Methylnaphthalene	90-12-0	4.6E-01	DTSC-SL	3.0E+02	DTSC-SL	2.9E-02	PPRTV	7.3E-06	Route (PPRTV)	7.0E-02	ATSDR	2.8E+02	Route (ATSDR)
2,4,4-Trimethylpentene	25167-70-8	--	--	3.6E+01	DTSC-SL	--	--	--	--	1.0E-02	sPPRTV	4.0E+01	Route (sPPRTV)
2,4,6-Trichlorophenol	88-06-2	6.5E-01	DTSC-SL	1.2E+01	USEPA RSL	7.0E-02	OEHHA	2.0E-05	OEHHA	1.0E-03	PPRTV	--	--
2,4,2,6-Dinitrotoluenes	E1615210	1.1E-01	USEPA RSL	1.7E+01	DTSC-SL	6.8E-01	IRIS	--	--	9.0E-04	sPPRTV	--	--
2-Chloroethanol	107-07-3	--	--	1.2E+02	DTSC-SL	--	--	--	--	2.0E-02	PPRTV	8.0E+01	Route (PPRTV)
2-Chloronaphthalene	91-58-7	--	--	3.5E+02	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route (IRIS)
2-Chlorophenol	95-57-8	--	--	2.9E+01	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route (IRIS)
2-Chlorotoluene	95-49-8	--	--	9.8E+01	DTSC-SL	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route (IRIS)
2-Methylnaphthalene	91-57-6	--	--	1.7E+01	DTSC-SL	--	--	--	--	4.0E-03	IRIS	1.6E+01	Route (IRIS)
2-Nitrotoluene	88-72-2	7.7E-02	DTSC-SL	5.1E+00	DTSC-SL	2.2E-01	PPRTV	5.5E-05	Route (PPRTV)	9.0E-04	PPRTV	3.6E+00	Route (PPRTV)
3,3'-Dichlorobenzidine	91-94-1	4.7E-02	DTSC-SL	--	--	1.2E+00	OEHHA	3.4E-04	OEHHA	--	--	--	--
4,4'-DDE	72-55-9	4.6E-02	USEPA RSL	1.8E+00	DTSC-SL	3.4E-01	IRIS	9.7E-05	OEHHA	3.0E-04	sPPRTV	1.2E+00	Route (sPPRTV)
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	1.1E-02	DTSC-SL	2.6E+01	USEPA RSL	1.5E+00	OEHHA	4.3E-04	OEHHA	2.0E-03	PPRTV	--	--
4-Chlorotoluene	106-43-4	--	--	1.0E+02	DTSC-SL	--	--	--	--	2.0E-02	sPPRTV	8.0E+01	Route (sPPRTV)
Acenaphthene	83-32-9	--	--	2.6E+02	DTSC-SL	--	--	--	--	6.0E-02	IRIS	2.4E+02	Route (IRIS)
Acetaldehyde	75-07-0	2.1E+00	DTSC-SL	1.9E+01	USEPA RSL	--	--	2.7E-06	OEHHA	--	--	9.0E+00	IRIS
Acetophenone	98-86-2	--	--	5.9E+02	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route (IRIS)
Aldrin	309-00-2	9.2E-04	USEPA RSL	1.8E-01	DTSC-SL	1.7E+01	IRIS	4.9E-03	IRIS	3.0E-05	IRIS	1.2E-01	Route (IRIS)
Anthracene	120-12-7	--	--	1.0E+03	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route (IRIS)
Aroclor 1016	12674-11-2	2.2E-01	USEPA RSL	4.1E-01	DTSC-SL	7.0E-02	IRIS	2.0E-05	RSL	7.0E-05	IRIS	2.8E-01	Route (IRIS)
Aroclor 1254	11097-69-1	7.9E-03	USEPA RSL	1.2E-01	DTSC-SL	2.0E+00	IRIS	5.7E-04	IRIS	2.0E-05	IRIS	8.0E-02	Route (IRIS)
Aroclor 5460	11126-42-4	--	--	3.5E+00	DTSC-SL	--	--	--	--	6.0E-04	sPPRTV	2.4E+00	Route (sPPRTV)
Arsenic	7440-38-2	8.2E-03	DTSC-SL	7.0E-02	DTSC-SL	9.5E+00	OEHHA PHG	4.3E-03	IRIS	3.5E-06	OEHHA	1.5E-02	OEHHA
Benfluralin	1861-40-1	--	--	1.7E+01	DTSC-SL	--	--	--	--	5.0E-03	RSL	2.0E+01	Route (RSL)
Benzaldehyde	100-52-7	4.3E+00	DTSC-SL	5.8E+02	DTSC-SL	4.0E-03	PPRTV	1.0E-06	Route (PPRTV)	1.0E-01	IRIS	4.0E+02	Route (IRIS)
Benzene	71-43-2	1.5E-01	DTSC-SL	5.7E+00	DTSC-SL	1.0E-01	OEHHA	2.9E-05	OEHHA	4.0E-03	IRIS	3.0E+00	OEHHA
Benzidine	92-87-5	4.9E-05	DTSC-SL	5.9E+01	USEPA RSL	5.0E+02	OEHHA	1.4E-01	OEHHA	3.0E-03	IRIS	--	--
Benzo[a]anthracene	56-55-3	1.7E-02	DTSC-SL	--	--	1.0E-01	RSL	1.1E-04	OEHHA	--	--	--	--
Benzotrichloride	98-07-7	1.1E-03	DTSC-SL	--	--	1.3E+01	IRIS	3.3E-03	Route (IRIS)	--	--	--	--

Table 2. DTSC-Recommended Screening Levels for Tap Water^a

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Toxicity Factors for DTSC Screening Levels ^b							
		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	SFO (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	HTC or REL (µg/m ³)	Source
Beryllium	7440-41-7	--	--	4.0E+00	DTSC-SL	--	--	--	--	2.0E-04	OEHHA PHG	7.0E-03	OEHHA
Beryllium Sulfate	13510-49-1	--	--	4.0E+00	DTSC-SL	--	--	--	--	2.0E-04	OEHHA PHG	7.0E-03	OEHHA
Biphenyl	92-52-4	1.6E+00	DTSC-SL	8.3E-01	USEPA RSL	8.0E-03	IRIS	2.0E-06	Route (IRIS)	5.0E-01	IRIS	4.0E-01	sPPRTV
bis(2-Chloroethyl) Ether	111-44-4	6.3E-03	DTSC-SL	--	--	2.5E+00	OEHHA	7.1E-04	OEHHA	--	--	--	--
bis-Chloroisopropyl Ether	108-60-1	--	--	2.3E+02	DTSC-SL	--	--	--	--	4.0E-02	IRIS	1.6E+02	Route (IRIS)
Bromodichloromethane	75-27-4	1.3E-01	USEPA RSL	1.2E+02	DTSC-SL	6.2E-02	IRIS	3.7E-05	OEHHA	2.0E-02	IRIS	8.0E+01	Route (IRIS)
Bromoform	75-25-2	3.3E+00	USEPA RSL	1.2E+02	DTSC-SL	7.9E-03	IRIS	1.1E-06	IRIS	2.0E-02	IRIS	8.0E+01	Route (IRIS)
Bromophos	2104-96-3	--	--	1.9E+01	DTSC-SL	--	--	--	--	5.0E-03	HEAST	2.0E+01	Route (HEAST)
Bromoxynil octanoate	1689-99-2	2.4E-01	USEPA RSL	5.6E+01	DTSC-SL	1.0E-01	RSL	--	--	1.5E-02	RSL	6.0E+01	Route (RSL)
Butylate	2008-41-5	--	--	2.2E+02	DTSC-SL	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route (IRIS)
Carbon tetrachloride	56-23-5	4.6E-01	USEPA RSL	3.6E+01	DTSC-SL	7.0E-02	IRIS	6.0E-06	IRIS	4.0E-03	IRIS	4.0E+01	OEHHA
Carbonyl sulfide	463-58-1	--	--	2.1E+01	DTSC-SL	--	--	--	--	--	--	1.0E+01	OEHHA
Chloral hydrate	302-17-0	--	--	5.9E+02	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route (IRIS)
Chloroacetaldehyde	107-20-0	6.4E-02	DTSC-SL	--	--	2.7E-01	sPPRTV	6.8E-05	Route (sPPRTV)	--	--	--	--
Chlorodibromomethane	124-48-1	2.0E-01	DTSC-SL	1.2E+02	DTSC-SL	8.4E-02	IRIS	2.1E-05	Route (IRIS)	2.0E-02	IRIS	8.0E+01	Route (IRIS)
Chlorothalonil	1897-45-6	4.0E+00	DTSC-SL	2.6E+02	USEPA RSL	1.7E-02	OEHHA	8.9E-07	OEHHA	1.5E-02	IRIS	--	--
cis-1,2-Dichloroethene	156-59-2	--	--	1.2E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Cyanogen	460-19-5	--	--	5.9E+00	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route (IRIS)
Cyanogen bromide	506-68-3	--	--	5.3E+02	DTSC-SL	--	--	--	--	9.0E-02	IRIS	3.6E+02	Route (IRIS)
Cyanogen chloride	506-77-4	--	--	2.9E+02	DTSC-SL	--	--	--	--	5.0E-02	IRIS	2.0E+02	Route (IRIS)
Cyclohexylamine	108-91-8	--	--	1.2E+03	DTSC-SL	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route (IRIS)
Dibenz[a,h]anthracene	53-70-3	6.1E-03	DTSC-SL	--	--	4.1E+00	OEHHA	1.2E-03	OEHHA	--	--	--	--
Dibenzofuran	132-64-9	--	--	4.0E+00	DTSC-SL	--	--	--	--	1.0E-03	sPPRTV	4.0E+00	Route (sPPRTV)
Dibenzothiophene	132-65-0	--	--	3.7E+01	DTSC-SL	--	--	--	--	1.0E-02	sPPRTV	4.0E+01	Route (sPPRTV)
Dieldrin	60-57-1	6.6E-04	USEPA RSL	1.8E-01	DTSC-SL	1.6E+01	IRIS	4.6E-03	IRIS	5.0E-05	IRIS	2.0E-01	Route (IRIS)
Diethylformamide	617-84-5	--	--	5.9E+00	DTSC-SL	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route (PPRTV)
diisopropyl Methylphosphonate	1445-75-6	--	--	4.7E+02	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.2E+02	Route (IRIS)
Dimethyl terephthalate	120-61-6	--	--	5.8E+02	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route (IRIS)
Endosulfan	115-29-7	--	--	3.3E+01	DTSC-SL	--	--	--	--	6.0E-03	IRIS	2.4E+01	Route (IRIS)
Epichlorohydrin	106-89-8	1.9E-01	DTSC-SL	2.0E+00	USEPA RSL	8.0E-02	OEHHA	2.3E-05	OEHHA	6.0E-03	PPRTV	1.0E+00	IRIS
Ethyl Ether	60-29-7	--	--	1.2E+03	DTSC-SL	--	--	--	--	2.0E-01	IRIS	8.0E+02	Route (IRIS)
Ethylene diamine	107-15-3	--	--	5.3E+02	DTSC-SL	--	--	--	--	9.0E-02	PPRTV	3.6E+02	Route (PPRTV)
Ethylene dibromide	106-93-4	7.5E-03	USEPA RSL	1.7E+00	DTSC-SL	2.0E+00	IRIS	6.0E-04	IRIS	9.0E-03	IRIS	8.0E-01	OEHHA
Ethylene thiourea	96-45-7	7.1E-01	DTSC-SL	1.6E+00	USEPA RSL	1.1E-01	HEAST	1.3E-05	OEHHA	8.0E-05	IRIS	--	--
Fluorene	86-73-7	--	--	1.6E+02	DTSC-SL	--	--	--	--	4.0E-02	IRIS	1.6E+02	Route (IRIS)
Formaldehyde	50-00-0	3.9E-01	DTSC-SL	1.9E+01	DTSC-SL	2.1E-02	OEHHA	1.3E-05	IRIS	2.0E-01	IRIS	9.0E+00	OEHHA
Furan	110-00-9	--	--	5.8E+00	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route (IRIS)
Guanidine	113-00-8	--	--	5.9E+01	DTSC-SL	--	--	--	--	1.0E-02	sPPRTV	4.0E+01	Route (sPPRTV)
HCH (mixed isomers)	608-73-1	1.1E-02	DTSC-SL	--	--	4.0E+00	OEHHA	1.1E-03	OEHHA	--	--	--	--
Heptachlor	76-44-8	1.4E-03	USEPA RSL	9.8E-01	DTSC-SL	4.5E+00	IRIS	1.3E-03	IRIS	5.0E-04	IRIS	2.0E+00	Route (IRIS)
Heptachlor Epoxide	1024-57-3	1.4E-03	USEPA RSL	5.8E-02	DTSC-SL	9.1E+00	IRIS	2.6E-03	IRIS	1.3E-05	IRIS	5.2E-02	Route (IRIS)
Hexabromobenzene	87-82-1	--	--	1.2E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Hexachlorobenzene	118-74-1	8.8E-03	DTSC-SL	4.7E+00	DTSC-SL	1.8E+00	OEHHA	5.1E-04	OEHHA	8.0E-04	IRIS	3.2E+00	Route (IRIS)
Hexachlorobutadiene	87-68-3	1.4E-01	USEPA RSL	3.6E+00	DTSC-SL	7.8E-02	IRIS	2.2E-05	IRIS	1.0E-03	PPRTV	4.0E+00	Route (PPRTV)
Hydrogen Chloride	7647-01-0	--	--	1.9E+01	DTSC-SL	--	--	--	--	--	--	9.0E+00	OEHHA
Isobutanol	78-83-1	--	--	1.8E+03	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route (IRIS)
Isopropalin	33820-53-0	--	--	3.0E+01	DTSC-SL	--	--	--	--	1.5E-02	IRIS	6.0E+01	Route (IRIS)
Lead acetate	301-04-2	2.8E-01	DTSC-SL	--	--	2.8E-01	OEHHA	8.0E-05	OEHHA	--	--	--	--

Table 2. DTSC-Recommended Screening Levels for Tap Water^a

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Toxicity Factors for DTSC Screening Levels ^b							
		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	SFO (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Lead subacetate	1335-32-6	2.1E+00	DTSC-SL	--	--	3.8E-02	OEHHA	1.1E-05	OEHHA	--	--	--	--
Lewisite	541-25-3	--	--	2.9E-02	DTSC-SL	--	--	--	--	5.0E-06	PPRTV	2.0E-02	Route (PPRTV)
Mercuric Chloride	7487-94-7	--	--	3.0E+00	DTSC-SL	--	--	--	--	1.6E-04	OEHHA	3.0E-02	OEHHA
Mercury	7439-97-6	--	--	6.3E-02	DTSC-SL	--	--	--	--	a tapwater ingestion CO		3.0E-02	OEHHA
Merphos	150-50-5	--	--	1.8E-01	DTSC-SL	--	--	--	--	3.0E-05	IRIS	1.2E-01	Route (IRIS)
Methoxychlor	72-43-5	--	--	2.0E+01	DTSC-SL	--	--	--	--	5.0E-03	IRIS	2.0E+01	Route (IRIS)
Methyl acetate	79-20-9	--	--	5.9E+03	DTSC-SL	--	--	--	--	1.0E+00	sPPRTV	4.0E+03	Route (sPPRTV)
Methyl styrene (alpha)	98-83-9	--	--	3.3E+02	DTSC-SL	--	--	--	--	7.0E-02	HEAST	2.8E+02	Route (HEAST)
Methylcyclohexane	108-87-2	--	--	1.3E+04	DTSC-SL	--	--	--	--	--	--	6.0E+03	Cyclohexane
Methylene Chloride	75-09-2	1.7E+00	DTSC-SL	1.0E+02	DTSC-SL	2.0E-03	IRIS	1.0E-06	OEHHA	6.0E-03	IRIS	4.0E+02	OEHHA
Mineral oils (l)	8012-95-1	--	--	1.8E+04	DTSC-SL	--	--	--	--	3.0E+00	PPRTV	1.2E+04	Route (PPRTV)
Mirex	2385-85-5	8.8E-04	USEPA RSL	1.2E+00	DTSC-SL	1.8E+01	OEHHA	5.1E-03	OEHHA	2.0E-04	IRIS	8.0E-01	Route (IRIS)
N,N-Dimethylaniline	121-69-7	6.3E-01	DTSC-SL	1.1E+01	DTSC-SL	2.7E-02	PPRTV	6.8E-06	Route (PPRTV)	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Naled	300-76-5	--	--	1.2E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Naphthalene	91-20-3	1.2E-01	DTSC-SL	6.1E+00	USEPA RSL	1.2E-01	OEHHA	3.4E-05	OEHHA	2.0E-02	IRIS	3.0E+00	IRIS
n-Butyl alcohol	71-36-3	--	--	5.9E+02	DTSC-SL	--	--	--	--	1.0E-01	IRIS	4.0E+02	Route (IRIS)
n-Butylbenzene	104-51-8	--	--	2.9E+02	DTSC-SL	--	--	--	--	5.0E-02	PPRTV	2.0E+02	Route (PPRTV)
Nickel	7440-02-0	--	--	2.2E+02	DTSC-SL	--	--	--	--	1.1E-02	OEHHA	1.4E-02	OEHHA
Nickelocene	1271-28-9	8.6E-02	DTSC-SL	2.2E+02	USEPA RSL	9.1E-01	OEHHA	2.6E-04	OEHHA	1.1E-02	OEHHA	1.4E-02	OEHHA
N-Nitroso-di-n-butylamine	924-16-3	1.4E-03	DTSC-SL	--	--	1.1E+01	OEHHA	3.1E-03	OEHHA	--	--	--	--
o-Toluidine	95-53-4	4.2E-01	DTSC-SL	--	--	1.8E-01	OEHHA	5.1E-05	OEHHA	--	--	--	--
p,a,a,a-Tetrachlorotoluene	5216-25-1	6.1E-04	DTSC-SL	--	--	2.0E+01	HEAST	5.0E-03	Route (HEAST)	--	--	--	--
p-Chloro-o-toluidine	95-69-2	2.6E-01	DTSC-SL	5.4E+01	USEPA RSL	2.7E-01	OEHHA	7.7E-05	OEHHA	3.0E-03	sPPRTV	--	--
Pebulate	1114-71-2	--	--	2.4E+02	DTSC-SL	--	--	--	--	5.0E-02	HEAST	2.0E+02	Route (HEAST)
Pentabromodiphenyl Ethers	32534-81-9	--	--	1.2E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Pentachlorobenzene	608-93-5	--	--	2.1E+00	DTSC-SL	--	--	--	--	8.0E-04	IRIS	3.2E+00	Route (IRIS)
Pentachloroethane	76-01-7	1.8E-01	DTSC-SL	--	--	9.0E-02	PPRTV	2.3E-05	Route (PPRTV)	--	--	--	--
Pentachloronitrobenzene	82-68-8	5.0E-02	DTSC-SL	1.3E+01	DTSC-SL	2.6E-01	HEAST	6.5E-05	Route (HEAST)	3.0E-03	IRIS	1.2E+01	Route (IRIS)
Phenyl Isothiocyanate	103-72-0	--	--	1.0E+00	DTSC-SL	--	--	--	--	2.0E-04	sPPRTV	8.0E-01	Route (sPPRTV)
Phenylmercaptan	108-98-5	--	--	5.6E+00	DTSC-SL	--	--	--	--	1.0E-03	PPRTV	4.0E+00	Route (PPRTV)
Phosphorus, White	7723-14-0	--	--	1.2E-01	DTSC-SL	--	--	--	--	2.0E-05	IRIS	8.0E-02	Route (IRIS)
Profluralin	26399-36-0	--	--	1.7E+01	DTSC-SL	--	--	--	--	6.0E-03	HEAST	2.4E+01	Route (HEAST)
Propargyl alcohol	107-19-7	--	--	1.2E+01	DTSC-SL	--	--	--	--	2.0E-03	IRIS	8.0E+00	Route (IRIS)
Pyrene	129-00-0	--	--	8.1E+01	DTSC-SL	--	--	--	--	3.0E-02	IRIS	1.2E+02	Route (IRIS)
Pyridine	110-86-1	--	--	5.9E+00	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route (IRIS)
Ronnel	299-84-3	--	--	2.1E+02	DTSC-SL	--	--	--	--	5.0E-02	HEAST	2.0E+02	Route (HEAST)
sec-Butylbenzene	135-98-8	--	--	5.9E+02	DTSC-SL	--	--	--	--	1.0E-01	sPPRTV	4.0E+02	Route (sPPRTV)
S-Ethyl dipropylthiocarbamate	759-94-4	--	--	2.7E+02	DTSC-SL	--	--	--	--	5.0E-02	RSL	2.0E+02	Route (RSL)
Styrene	100-42-5	--	--	1.1E+03	DTSC-SL	--	--	--	--	2.0E-01	IRIS	9.0E+02	OEHHA
Terbufos	13071-79-9	--	--	1.1E-01	DTSC-SL	--	--	--	--	2.5E-05	HEAST	1.0E-01	Route (HEAST)
tert-Butylbenzene	98-06-6	--	--	3.8E+02	DTSC-SL	--	--	--	--	1.0E-01	sPPRTV	4.0E+02	Route (sPPRTV)
Tetrachloroethene	127-18-4	8.4E-02	DTSC-SL	4.1E+01	USEPA RSL	5.4E-01	OEHHA PHG	6.1E-06	OEHHA	6.0E-03	IRIS	4.0E+01	IRIS
Tetraethyl Lead	78-00-2	--	--	5.1E-04	DTSC-SL	--	--	--	--	1.0E-07	IRIS	4.0E-04	Route (IRIS)
Thallium acetate	563-68-8	--	--	5.9E-02	DTSC-SL	--	--	--	--	1.0E-05	sPPRTV	4.0E-02	Route (sPPRTV)
Thallium carbonate	6533-73-9	--	--	1.2E-01	DTSC-SL	--	--	--	--	2.0E-05	sPPRTV	8.0E-02	Route (sPPRTV)
Thiocyanic acid	463-56-9	--	--	1.2E+00	DTSC-SL	--	--	--	--	2.0E-04	PPRTV	8.0E-01	Route (PPRTV)
Toluene	108-88-3	--	--	4.1E+02	DTSC-SL	--	--	--	--	8.0E-02	IRIS	3.0E+02	OEHHA
Toluene-2,4-diisocyanate	584-84-9	3.4E-01	DTSC-SL	1.7E-02	USEPA RSL	3.9E-02	OEHHA	1.1E-05	OEHHA	--	--	8.0E-03	OEHHA

Table 2. DTSC-Recommended Screening Levels for Tap Water^a

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Toxicity Factors for DTSC Screening Levels ^b							
		Cancer Endpoint		Noncancer Endpoint		Oral Slope Factor		Inhalation Unit Risk		Reference Dose - Oral		Reference Concentration	
		Final Value	Source	Final Value	Source	SFO (mg/kg-d) ⁻¹	Source	IUR (µg/m ³) ⁻¹	Source	RfDo (mg/kg-d)	Ref.	RfC or REL (µg/m ³)	Source
Toluene-2,6-diisocyanate	91-08-7	3.4E-01	DTSC-SL	1.7E-02	USEPA RSL	3.9E-02	OEHHA	1.1E-05	OEHHA	--	--	8.0E-03	OEHHA
Toxaphene	8001-35-2	6.5E-02	DTSC-SL	1.8E+00	USEPA RSL	1.2E+00	OEHHA	3.2E-04	IRIS	9.0E-05	PPRTV	--	--
trans-1,2-Dichloroethene	156-60-5	--	--	1.1E+02	DTSC-SL	--	--	--	--	2.0E-02	IRIS	8.0E+01	Route (IRIS)
trans-Crotonaldehyde	123-73-9	9.1E-03	DTSC-SL	5.9E+00	DTSC-SL	1.9E+00	HEAST	4.8E-04	Route (HEAST)	1.0E-03	PPRTV	4.0E+00	Route (PPRTV)
Triallate	2303-17-5	1.9E-01	DTSC-SL	1.1E+02	DTSC-SL	7.2E-02	RSL	1.8E-05	Route (RSL)	2.5E-02	RSL	1.0E+02	Route (RSL)
Tributyltin	688-73-3	--	--	1.5E+00	DTSC-SL	--	--	--	--	3.0E-04	PPRTV	1.2E+00	Route (PPRTV)
Trichlorofluoromethane	75-69-4	--	--	1.7E+03	DTSC-SL	--	--	--	--	3.0E-01	IRIS	1.2E+03	Route (IRIS)
Trifluralin	1582-09-8	1.4E+00	DTSC-SL	2.5E+01	DTSC-SL	7.7E-03	IRIS	1.9E-06	Route (IRIS)	7.5E-03	IRIS	3.0E+01	Route (IRIS)
Vernam	1929-77-7	--	--	4.8E+00	DTSC-SL	--	--	--	--	1.0E-03	IRIS	4.0E+00	Route (IRIS)
Vinyl chloride	75-01-4	9.8E-03	DTSC-SL	4.5E+01	USEPA RSL	7.2E-01	IRIS	7.8E-05	OEHHA	3.0E-03	IRIS	1.0E+02	IRIS

^a Summarized from Appendix B, Table B-1. USEPA RSLs are provided for completeness when there is no DTSC-SL for a combination of receptor and endpoint;

"--" = no value

^b See HHRA Note 10 for details concerning specification of toxicity factors.

(mg/kg-d)⁻¹ = per (milligram per kilogram--day)

(µg/m³)⁻¹ = per (microgram per cubic meter)

µg/L = micrograms per liter

µg/m³ = micrograms per cubic meter

CAS# = Chemical Abstracts Service Registry Number

DTSC = California Department of Toxic Substances Control

HEAST = Health Effects Assessment Summary Tables

IRIS = USEPA's *Integrated Risk Information System*

IUR = inhalation unit-risk factor

mg/kg-d = milligrams per kilogram--day

OEHHA = California Office of Environmental Health Hazard Assessment

PHG = Public Health Goal toxicity factor

PPRTV = provisional peer-reviewed toxicity value

RfC = reference concentration

REL = reference exposure level

RfDo = oral reference dose

Route('xyz') = route extrapolation from an oral toxicity value (from the 'xyz' source) to an inhalation toxicity value:

IUR (µg/m³)⁻¹ = SFO (mg/kg-day)⁻¹ × (1/80 kg) × 20 m³/day × 0.001 mg/µg

RfC (µg/m³) = RfDo (mg/kg-day) × 80 kg × (1 day/20 m³) × 1000 µg/mg

RSL = Regional Screening Level

SFO = oral slope factor

SL = screening level

sPPRTV = screening PPRTV

USEPA = U.S. Environmental Protection Agency

Table 3. Screening Levels for Ambient Air^a

Analyte	CAS #	Screening Levels for Residential Air (µg/m ³)				Screening Levels for Commercial/Industrial Air (µg/m ³)				Toxicity Factor for Final Screening Value ^b			
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Inhalation Unit Risk, IUR (µg/m ³) ⁻¹	Source	Reference Concentration, RfC or REL (µg/m ³)	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source			Source	Source
1,1,1,2-Tetrachloroethane	630-20-6	3.8E-01	USEPA RSL	1.3E+02	DTSC-SL	1.7E+00	USEPA RSL	5.3E+02	DTSC-SL	7.4E-06	IRIS	1.2E+02	Route (IRIS)
1,1,1-Trichloroethane	71-55-6	--	--	1.0E+03	DTSC-SL	--	--	4.4E+03	DTSC-SL	--	--	1.0E+03	OEHHA
1,1,2,2-Tetrachloroethane	79-34-5	4.8E-02	USEPA RSL	8.3E+01	DTSC-SL	2.1E-01	USEPA RSL	3.5E+02	DTSC-SL	5.8E-05	OEHHA	8.0E+01	Route (IRIS)
1,1,2-Trichloropropane	598-77-6	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (IRIS)
1,1-Dichloroethane	75-34-3	1.8E+00	USEPA RSL	8.3E+02	DTSC-SL	7.7E+00	USEPA RSL	3.5E+03	DTSC-SL	1.6E-06	OEHHA	8.0E+02	Route (PPRTV)
1,1-Dichloroethene	75-35-4	--	--	7.3E+01	DTSC-SL	--	--	3.1E+02	DTSC-SL	--	--	7.0E+01	OEHHA
1,2,3-Trichlorobenzene	87-61-6	--	--	3.3E+00	DTSC-SL	--	--	1.4E+01	DTSC-SL	--	--	3.2E+00	Route (sPPRTV)
1,2,3-Trichloropropane	96-18-4	1.4E-04	DTSC-SL	3.1E-01	USEPA RSL	1.6E-03	DTSC-SL	1.3E+00	USEPA RSL	7.5E-03	Route (IRIS)	3.0E-01	IRIS
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	1.3E+00	DTSC-SL	--	--	5.3E+00	DTSC-SL	--	--	1.2E+00	Route (IRIS)
1,2,4-Tribromobenzene	615-54-3	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (IRIS)
1,2,4-Trichlorobenzene	120-82-1	3.8E-01	DTSC-SL	2.1E+00	USEPA RSL	1.7E+00	DTSC-SL	8.8E+00	USEPA RSL	7.3E-06	Route (PPRTV)	2.0E+00	PPRTV
1,3-Butadiene	106-99-0	1.7E-02	DTSC-SL	2.1E+00	USEPA RSL	7.2E-02	DTSC-SL	8.8E+00	USEPA RSL	1.7E-04	OEHHA	2.0E+00	IRIS
1,3-Dibromobenzene	108-36-1	--	--	1.7E+00	DTSC-SL	--	--	7.0E+00	DTSC-SL	--	--	1.6E+00	Route (sPPRTV)
1,3-Dichloropropane	142-28-9	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	8.0E+01	Route (PPRTV)
1,4-Dibromobenzene	106-37-6	--	--	4.2E+01	DTSC-SL	--	--	1.8E+02	DTSC-SL	--	--	4.0E+01	Route (IRIS)
1,4-Dithiane	505-29-3	--	--	4.2E+01	DTSC-SL	--	--	1.8E+02	DTSC-SL	--	--	4.0E+01	Route (IRIS)
1-Bromo-3-fluorobenzene	1073-06-9	--	--	1.3E+00	DTSC-SL	--	--	5.3E+00	DTSC-SL	--	--	1.2E+00	Route (sPPRTV)
1-Bromo-4-fluorobenzene	460-00-4	--	--	1.3E+00	DTSC-SL	--	--	5.3E+00	DTSC-SL	--	--	1.2E+00	Route (sPPRTV)
1-Chlorobutane	109-69-3	--	--	1.7E+02	DTSC-SL	--	--	7.0E+02	DTSC-SL	--	--	1.6E+02	Route (PPRTV)
1-Methylnaphthalene	90-12-0	3.9E-01	DTSC-SL	2.9E+02	DTSC-SL	1.7E+00	DTSC-SL	1.2E+03	DTSC-SL	7.3E-06	Route (PPRTV)	2.8E+02	Route (ATSDR)
2,4,4-Trimethylpentene	25167-70-8	--	--	4.2E+01	DTSC-SL	--	--	1.8E+02	DTSC-SL	--	--	4.0E+01	Route (sPPRTV)
2,4,6-Trichlorophenol	88-06-2	1.4E-01	DTSC-SL	--	--	6.1E-01	DTSC-SL	--	--	2.0E-05	OEHHA	--	--
2-Chloroethanol	107-07-3	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	8.0E+01	Route (PPRTV)
2-Chloronaphthalene	91-58-7	--	--	3.3E+02	DTSC-SL	--	--	1.4E+03	DTSC-SL	--	--	3.2E+02	Route (IRIS)
2-Chlorophenol	95-57-8	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (IRIS)
2-Chlorotoluene	95-49-8	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	8.0E+01	Route (IRIS)
2-Methylnaphthalene	91-57-6	--	--	1.7E+01	DTSC-SL	--	--	7.0E+01	DTSC-SL	--	--	1.6E+01	Route (IRIS)
2-Naphthylamine	91-59-8	6.2E-03	DTSC-SL	--	--	2.7E-02	DTSC-SL	--	--	4.5E-04	Route (OEHHA)	--	--
2-Nitrotoluene	88-72-2	5.1E-02	DTSC-SL	3.8E+00	DTSC-SL	2.2E-01	DTSC-SL	1.6E+01	DTSC-SL	5.5E-05	Route (PPRTV)	3.6E+00	Route (PPRTV)
4,4'-DDE	72-55-9	2.9E-02	USEPA RSL	1.3E+00	DTSC-SL	1.3E-01	USEPA RSL	5.3E+00	DTSC-SL	9.7E-05	OEHHA	1.2E+00	Route (sPPRTV)
4-Chlorotoluene	106-43-4	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	8.0E+01	Route (sPPRTV)
Acenaphthene	83-32-9	--	--	2.5E+02	DTSC-SL	--	--	1.1E+03	DTSC-SL	--	--	2.4E+02	Route (IRIS)
Acetaldehyde	75-07-0	1.0E+00	DTSC-SL	9.4E+00	USEPA RSL	4.5E+00	DTSC-SL	3.9E+01	USEPA RSL	2.7E-06	OEHHA	9.0E+00	IRIS
Acetophenone	98-86-2	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (IRIS)
Aldrin	309-00-2	5.7E-04	USEPA RSL	1.3E-01	DTSC-SL	2.5E-03	USEPA RSL	5.3E-01	DTSC-SL	4.9E-03	IRIS	1.2E-01	Route (IRIS)
Ammonia	7664-41-7	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	OEHHA
Anthracene	120-12-7	--	--	1.3E+03	DTSC-SL	--	--	5.3E+03	DTSC-SL	--	--	1.2E+03	Route (IRIS)
Aroclor 1016	12674-11-2	1.4E-01	USEPA RSL	2.9E-01	DTSC-SL	6.1E-01	USEPA RSL	1.2E+00	DTSC-SL	2.0E-05	RSL	2.8E-01	Route (IRIS)
Aroclor 1254	11097-69-1	4.9E-03	USEPA RSL	8.3E-02	DTSC-SL	2.1E-02	USEPA RSL	3.5E-01	DTSC-SL	5.7E-04	IRIS	8.0E-02	Route (IRIS)
Aroclor 5460	11126-42-4	--	--	2.5E+00	DTSC-SL	--	--	1.1E+01	DTSC-SL	--	--	2.4E+00	Route (sPPRTV)
Arsine	7784-42-1	--	--	1.6E-02	DTSC-SL	--	--	6.6E-02	DTSC-SL	--	--	1.5E-02	OEHHA
Benfluralin	1861-40-1	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (RSL)
Benzaldehyde	100-52-7	2.8E+00	DTSC-SL	4.2E+02	DTSC-SL	1.2E+01	DTSC-SL	1.8E+03	DTSC-SL	1.0E-06	Route (PPRTV)	4.0E+02	Route (IRIS)
Benzene	71-43-2	9.7E-02	DTSC-SL	3.1E+00	DTSC-SL	4.2E-01	DTSC-SL	1.3E+01	DTSC-SL	2.9E-05	OEHHA	3.0E+00	OEHHA
Benzidine	92-87-5	7.2E-06	DTSC-SL	--	--	8.8E-05	DTSC-SL	--	--	1.4E-01	OEHHA	--	--
Benzo[a]anthracene	56-55-3	9.2E-03	DTSC-SL	--	--	1.1E-01	DTSC-SL	--	--	1.1E-04	OEHHA	--	--
Benzo[a]pyrene	50-32-8	9.2E-04	DTSC-SL	2.1E-03	USEPA RSL	1.1E-02	DTSC-SL	8.8E-03	USEPA RSL	1.1E-03	OEHHA	2.0E-03	IRIS
Benzo[b]fluoranthene	205-99-2	9.2E-03	DTSC-SL	--	--	1.1E-01	DTSC-SL	--	--	1.1E-04	OEHHA	--	--

Table 3. Screening Levels for Ambient Air^a

Analyte	CAS #	Screening Levels for Residential Air (µg/m ³)				Screening Levels for Commercial/Industrial Air (µg/m ³)				Toxicity Factor for Final Screening Value ^b			
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Inhalation Unit Risk, IUR (µg/m ³) ⁻¹	Source	Reference Concentration, RfC or REL (µg/m ³)	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source			Source	Source
Benzo[k]fluoranthene	207-08-9	9.2E-03	DTSC-SL	--	--	1.1E-01	DTSC-SL	--	--	1.1E-04	OEHHA	--	--
Benzotrithloride	98-07-7	8.6E-04	DTSC-SL	--	--	3.8E-03	DTSC-SL	--	--	3.3E-03	Route (IRIS)	--	--
Beryllium	7440-41-7	1.2E-03	USEPA RSL	7.3E-03	DTSC-SL	5.1E-03	USEPA RSL	3.1E-02	DTSC-SL	2.4E-03	IRIS	7.0E-03	OEHHA
Beryllium Sulfate	13510-49-1	1.2E-03	DTSC-SL	7.3E-03	DTSC-SL	5.1E-03	DTSC-SL	3.1E-02	DTSC-SL	2.4E-03	IRIS	7.0E-03	OEHHA
Biphenyl	92-52-4	1.4E+00	DTSC-SL	4.2E-01	USEPA RSL	6.1E+00	DTSC-SL	1.8E+00	USEPA RSL	2.0E-06	Route (IRIS)	4.0E-01	sPPRTV
bis(2-Chloroethyl) Ether	111-44-4	4.0E-03	DTSC-SL	--	--	1.7E-02	DTSC-SL	--	--	7.1E-04	OEHHA	--	--
bis-Chloroisopropyl Ether	108-60-1	--	--	1.7E+02	DTSC-SL	--	--	7.0E+02	DTSC-SL	--	--	1.6E+02	Route (IRIS)
Bromodichloromethane	75-27-4	7.6E-02	USEPA RSL	8.3E+01	DTSC-SL	3.3E-01	USEPA RSL	3.5E+02	DTSC-SL	3.7E-05	OEHHA	8.0E+01	Route (IRIS)
Bromoform	75-25-2	2.6E+00	USEPA RSL	8.3E+01	DTSC-SL	1.1E+01	USEPA RSL	3.5E+02	DTSC-SL	1.1E-06	IRIS	8.0E+01	Route (IRIS)
Bromophos	2104-96-3	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (HEAST)
Bromoxynil octanoate	1689-99-2	--	--	6.3E+01	DTSC-SL	--	--	2.6E+02	DTSC-SL	--	--	6.0E+01	Route (RSL)
Butylate	2008-41-5	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (IRIS)
Cadmium (water)	7440-43-9 (water)	6.7E-04	DTSC-SL	1.0E-02	USEPA RSL	2.9E-03	DTSC-SL	4.4E-02	USEPA RSL	4.2E-03	OEHHA	1.0E-02	ATSDR
Carbon tetrachloride	56-23-5	4.7E-01	USEPA RSL	4.2E+01	DTSC-SL	2.0E+00	USEPA RSL	1.8E+02	DTSC-SL	6.0E-06	IRIS	4.0E+01	OEHHA
Carbonyl sulfide	463-58-1	--	--	1.0E+01	DTSC-SL	--	--	4.4E+01	DTSC-SL	--	--	1.0E+01	OEHHA
Chloral hydrate	302-17-0	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (IRIS)
Chloroacetaldehyde	107-20-0	4.2E-02	DTSC-SL	--	--	1.8E-01	DTSC-SL	--	--	6.8E-05	Route (sPPRTV)	--	--
Chlorodibromomethane	124-48-1	1.3E-01	DTSC-SL	8.3E+01	DTSC-SL	5.8E-01	DTSC-SL	3.5E+02	DTSC-SL	2.1E-05	Route (IRIS)	8.0E+01	Route (IRIS)
Chromium (VI)	18540-29-9	6.8E-06	DTSC-SL	1.0E-01	USEPA RSL	8.2E-05	DTSC-SL	4.4E-01	USEPA RSL	1.5E-01	OEHHA	1.0E-01	IRIS
Chrysene	218-01-9	9.2E-02	DTSC-SL	--	--	1.1E+00	DTSC-SL	--	--	1.1E-05	OEHHA	--	--
cis-1,2-Dichloroethene	156-59-2	--	--	8.3E+00	DTSC-SL	--	--	3.5E+01	DTSC-SL	--	--	8.0E+00	Route (IRIS)
Cyanogen	460-19-5	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (IRIS)
Cyanogen bromide	506-68-3	--	--	3.8E+02	DTSC-SL	--	--	1.6E+03	DTSC-SL	--	--	3.6E+02	Route (IRIS)
Cyanogen chloride	506-77-4	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (IRIS)
Cyclohexylamine	108-91-8	--	--	8.3E+02	DTSC-SL	--	--	3.5E+03	DTSC-SL	--	--	8.0E+02	Route (IRIS)
Dibenz[a,h]anthracene	53-70-3	8.4E-04	DTSC-SL	--	--	1.0E-02	DTSC-SL	--	--	1.2E-03	OEHHA	--	--
Dibenzofuran	132-64-9	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (sPPRTV)
Dibenzothiophene	132-65-0	--	--	4.2E+01	DTSC-SL	--	--	1.8E+02	DTSC-SL	--	--	4.0E+01	Route (sPPRTV)
Dieldrin	60-57-1	6.1E-04	USEPA RSL	2.1E-01	DTSC-SL	2.7E-03	USEPA RSL	8.8E-01	DTSC-SL	4.6E-03	IRIS	2.0E-01	Route (IRIS)
Diethylformamide	617-84-5	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (PPRTV)
diisopropyl Methylphosphonate	1445-75-6	--	--	3.3E+02	DTSC-SL	--	--	1.4E+03	DTSC-SL	--	--	3.2E+02	Route (IRIS)
Dimethyl terephthalate	120-61-6	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (IRIS)
Endosulfan	115-29-7	--	--	2.5E+01	DTSC-SL	--	--	1.1E+02	DTSC-SL	--	--	2.4E+01	Route (IRIS)
Epichlorohydrin	106-89-8	1.2E-01	DTSC-SL	1.0E+00	USEPA RSL	5.3E-01	DTSC-SL	4.4E+00	USEPA RSL	2.3E-05	OEHHA	1.0E+00	IRIS
Ethyl Ether	60-29-7	--	--	8.3E+02	DTSC-SL	--	--	3.5E+03	DTSC-SL	--	--	8.0E+02	Route (IRIS)
Ethylene diamine	107-15-3	--	--	3.8E+02	DTSC-SL	--	--	1.6E+03	DTSC-SL	--	--	3.6E+02	Route (PPRTV)
Ethylene dibromide	106-93-4	4.7E-03	USEPA RSL	8.3E-01	DTSC-SL	2.0E-02	USEPA RSL	3.5E+00	DTSC-SL	6.0E-04	IRIS	8.0E-01	OEHHA
Fluorene	86-73-7	--	--	1.7E+02	DTSC-SL	--	--	7.0E+02	DTSC-SL	--	--	1.6E+02	Route (IRIS)
Formaldehyde	50-00-0	2.2E-01	USEPA RSL	9.4E+00	DTSC-SL	9.4E-01	USEPA RSL	3.9E+01	DTSC-SL	1.3E-05	IRIS	9.0E+00	OEHHA
Furan	110-00-9	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (IRIS)
Guanidine	113-00-8	--	--	4.2E+01	DTSC-SL	--	--	1.8E+02	DTSC-SL	--	--	4.0E+01	Route (sPPRTV)
HCH (mixed isomers)	608-73-1	2.6E-03	DTSC-SL	--	--	1.1E-02	DTSC-SL	--	--	1.1E-03	OEHHA	--	--
Heptachlor	76-44-8	2.2E-03	USEPA RSL	2.1E+00	DTSC-SL	9.4E-03	USEPA RSL	8.8E+00	DTSC-SL	1.3E-03	IRIS	2.0E+00	Route (IRIS)
Heptachlor Epoxide	1024-57-3	1.1E-03	USEPA RSL	5.4E-02	DTSC-SL	4.7E-03	USEPA RSL	2.3E-01	DTSC-SL	2.6E-03	IRIS	5.2E-02	Route (IRIS)
Hexabromobenzene	87-82-1	--	--	8.3E+00	DTSC-SL	--	--	3.5E+01	DTSC-SL	--	--	8.0E+00	Route (IRIS)
Hexachlorobenzene	118-74-1	5.5E-03	DTSC-SL	3.3E+00	DTSC-SL	2.4E-02	DTSC-SL	1.4E+01	DTSC-SL	5.1E-04	OEHHA	3.2E+00	Route (IRIS)
Hexachlorobutadiene	87-68-3	1.3E-01	USEPA RSL	4.2E+00	DTSC-SL	5.6E-01	USEPA RSL	1.8E+01	DTSC-SL	2.2E-05	IRIS	4.0E+00	Route (PPRTV)
HxCDD Mixture	HxCDD Mixture	7.4E-07	DTSC-SL	--	--	3.2E-06	DTSC-SL	--	--	3.8E+00	OEHHA	--	--

Table 3. Screening Levels for Ambient Air^a

Analyte	CAS #	Screening Levels for Residential Air (µg/m ³)				Screening Levels for Commercial/Industrial Air (µg/m ³)				Toxicity Factor for Final Screening Value ^b			
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Inhalation Unit Risk, IUR (µg/m ³) ⁻¹	Source	Reference Concentration, RfC or REL (µg/m ³)	
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source			Source	Source
Hydrogen Chloride	7647-01-0	--	--	9.4E+00	DTSC-SL	--	--	3.9E+01	DTSC-SL	--	--	9.0E+00	OEHHA
Indeno[1,2,3-cd]pyrene	193-39-5	9.2E-03	DTSC-SL	--	--	1.1E-01	DTSC-SL	--	--	1.1E-04	OEHHA	--	--
Isobutanol	78-83-1	--	--	1.3E+03	DTSC-SL	--	--	5.3E+03	DTSC-SL	--	--	1.2E+03	Route (IRIS)
Isopropalin	33820-53-0	--	--	6.3E+01	DTSC-SL	--	--	2.6E+02	DTSC-SL	--	--	6.0E+01	Route (IRIS)
Lead acetate	301-04-2	3.5E-02	DTSC-SL	--	--	1.5E-01	DTSC-SL	--	--	8.0E-05	OEHHA	--	--
Lewisite	541-25-3	--	--	2.1E-02	DTSC-SL	--	--	8.8E-02	DTSC-SL	--	--	2.0E-02	Route (PPRTV)
Mercuric Chloride	7487-94-7	--	--	3.1E-02	DTSC-SL	--	--	1.3E-01	DTSC-SL	--	--	3.0E-02	OEHHA
Mercury	7439-97-6	--	--	3.1E-02	DTSC-SL	--	--	1.3E-01	DTSC-SL	--	--	3.0E-02	OEHHA
Merphos	150-50-5	--	--	1.3E-01	DTSC-SL	--	--	5.3E-01	DTSC-SL	--	--	1.2E-01	Route (IRIS)
Methoxychlor	72-43-5	--	--	2.1E+01	DTSC-SL	--	--	8.8E+01	DTSC-SL	--	--	2.0E+01	Route (IRIS)
Methyl acetate	79-20-9	--	--	4.2E+03	DTSC-SL	--	--	1.8E+04	DTSC-SL	--	--	4.0E+03	Route (sPPRTV)
Methyl styrene (alpha)	98-83-9	--	--	2.9E+02	DTSC-SL	--	--	1.2E+03	DTSC-SL	--	--	2.8E+02	Route (HEAST)
Methylcyclohexane	108-87-2	--	--	6.3E+03	DTSC-SL	--	--	2.6E+04	DTSC-SL	--	--	6.0E+03	Cyclohexane
Methylene Chloride	75-09-2	1.0E+00	DTSC-SL	4.2E+02	DTSC-SL	1.2E+01	DTSC-SL	1.8E+03	DTSC-SL	1.0E-06	OEHHA	4.0E+02	OEHHA
Methylene diphenyl diisocyanate	101-68-8	--	--	8.3E-02	DTSC-SL	--	--	3.5E-01	DTSC-SL	--	--	8.0E-02	OEHHA
Mineral oils (I)	8012-95-1	--	--	1.3E+04	DTSC-SL	--	--	5.3E+04	DTSC-SL	--	--	1.2E+04	Route (PPRTV)
Mirex	2385-85-5	5.5E-04	USEPA RSL	8.3E-01	DTSC-SL	2.4E-03	USEPA RSL	3.5E+00	DTSC-SL	5.1E-03	OEHHA	8.0E-01	Route (IRIS)
N,N-Dimethylaniline	121-69-7	4.2E-01	DTSC-SL	8.3E+00	DTSC-SL	1.8E+00	DTSC-SL	3.5E+01	DTSC-SL	6.8E-06	Route (PPRTV)	8.0E+00	Route (IRIS)
Naled	300-76-5	--	--	8.3E+00	DTSC-SL	--	--	3.5E+01	DTSC-SL	--	--	8.0E+00	Route (IRIS)
n-Butyl alcohol	71-36-3	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (IRIS)
n-Butylbenzene	104-51-8	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (PPRTV)
Nickel	7440-02-0	1.1E-02	USEPA RSL	1.5E-02	DTSC-SL	4.7E-02	USEPA RSL	6.1E-02	DTSC-SL	2.6E-04	OEHHA	1.4E-02	OEHHA
Nickel refinery dust	E715532	1.1E-02	DTSC-SL	1.5E-02	USEPA RSL	4.7E-02	DTSC-SL	6.1E-02	USEPA RSL	2.6E-04	OEHHA	1.4E-02	OEHHA
N-Nitroso-di-n-butylamine	924-16-3	9.1E-04	DTSC-SL	--	--	4.0E-03	DTSC-SL	--	--	3.1E-03	OEHHA	--	--
p,a,a,a-Tetrachlorotoluene	5216-25-1	5.6E-04	DTSC-SL	--	--	2.5E-03	DTSC-SL	--	--	5.0E-03	Route (HEAST)	--	--
Pebulate	1114-71-2	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (HEAST)
Pentabromodiphenyl Ethers	32534-81-9	--	--	8.3E+00	DTSC-SL	--	--	3.5E+01	DTSC-SL	--	--	8.0E+00	Route (IRIS)
Pentachlorobenzene	608-93-5	--	--	3.3E+00	DTSC-SL	--	--	1.4E+01	DTSC-SL	--	--	3.2E+00	Route (IRIS)
Pentachloroethane	76-01-7	1.2E-01	DTSC-SL	--	--	5.5E-01	DTSC-SL	--	--	2.3E-05	Route (PPRTV)	--	--
Pentachloronitrobenzene	82-68-8	4.3E-02	DTSC-SL	1.3E+01	DTSC-SL	1.9E-01	DTSC-SL	5.3E+01	DTSC-SL	6.5E-05	Route (HEAST)	1.2E+01	Route (IRIS)
Phenyl Isothiocyanate	103-72-0	--	--	8.3E-01	DTSC-SL	--	--	3.5E+00	DTSC-SL	--	--	8.0E-01	Route (sPPRTV)
Phenylmercaptan	108-98-5	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (PPRTV)
Phosphorus, White	7723-14-0	--	--	8.3E-02	DTSC-SL	--	--	3.5E-01	DTSC-SL	--	--	8.0E-02	Route (IRIS)
Polymeric methylenediphenyl diisocyanate	9016-87-9	--	--	8.3E-02	DTSC-SL	--	--	3.5E-01	DTSC-SL	--	--	8.0E-02	OEHHA
Profluralin	26399-36-0	--	--	2.5E+01	DTSC-SL	--	--	1.1E+02	DTSC-SL	--	--	2.4E+01	Route (HEAST)
Propargyl alcohol	107-19-7	--	--	8.3E+00	DTSC-SL	--	--	3.5E+01	DTSC-SL	--	--	8.0E+00	Route (IRIS)
Pyrene	129-00-0	--	--	1.3E+02	DTSC-SL	--	--	5.3E+02	DTSC-SL	--	--	1.2E+02	Route (IRIS)
Pyridine	110-86-1	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (IRIS)
Ronnel	299-84-3	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (HEAST)
sec-Butylbenzene	135-98-8	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (sPPRTV)
S-Ethyl dipropylthiocarbamate	759-94-4	--	--	2.1E+02	DTSC-SL	--	--	8.8E+02	DTSC-SL	--	--	2.0E+02	Route (RSL)
Styrene	100-42-5	--	--	9.4E+02	DTSC-SL	--	--	3.9E+03	DTSC-SL	--	--	9.0E+02	OEHHA
Terbufos	13071-79-9	--	--	1.0E-01	DTSC-SL	--	--	4.4E-01	DTSC-SL	--	--	1.0E-01	Route (HEAST)
tert-Butylbenzene	98-06-6	--	--	4.2E+02	DTSC-SL	--	--	1.8E+03	DTSC-SL	--	--	4.0E+02	Route (sPPRTV)
Tetrachloroethene	127-18-4	4.6E-01	DTSC-SL	4.2E+01	USEPA RSL	2.0E+00	DTSC-SL	1.8E+02	USEPA RSL	6.1E-06	OEHHA	4.0E+01	IRIS
Tetraethyl Lead	78-00-2	--	--	4.2E-04	DTSC-SL	--	--	1.8E-03	DTSC-SL	--	--	4.0E-04	Route (IRIS)
Thiocyanic acid	463-56-9	--	--	8.3E-01	DTSC-SL	--	--	3.5E+00	DTSC-SL	--	--	8.0E-01	Route (PPRTV)
Toluene	108-88-3	--	--	3.1E+02	DTSC-SL	--	--	1.3E+03	DTSC-SL	--	--	3.0E+02	OEHHA

Table 3. Screening Levels for Ambient Air^a

Analyte	CAS #	Screening Levels for Residential Air (µg/m ³)				Screening Levels for Commercial/Industrial Air (µg/m ³)				Toxicity Factor for Final Screening Value ^b			
		Cancer Endpoint		Noncancer Endpoint		Cancer Endpoint		Noncancer Endpoint		Inhalation Unit Risk, IUR (µg/m ³) ⁻¹	Source	Reference Concentration, RfC or REL (µg/m ³)	Source
		Final Value	Source	Final Value	Source	Final Value	Source	Final Value	Source				
trans-1,2-Dichloroethene	156-60-5	--	--	8.3E+01	DTSC-SL	--	--	3.5E+02	DTSC-SL	--	--	8.0E+01	Route (IRIS)
trans-Crotonaldehyde	123-73-9	5.9E-03	DTSC-SL	4.2E+00	DTSC-SL	2.6E-02	DTSC-SL	1.8E+01	DTSC-SL	4.8E-04	Route (HEAST)	4.0E+00	Route (PPRTV)
Triallate	2303-17-5	1.6E-01	DTSC-SL	1.0E+02	DTSC-SL	6.8E-01	DTSC-SL	4.4E+02	DTSC-SL	1.8E-05	Route (RSL)	1.0E+02	Route (RSL)
Tributyltin	688-73-3	--	--	1.3E+00	DTSC-SL	--	--	5.3E+00	DTSC-SL	--	--	1.2E+00	Route (PPRTV)
Trichlorofluoromethane	75-69-4	--	--	1.3E+03	DTSC-SL	--	--	5.3E+03	DTSC-SL	--	--	1.2E+03	Route (IRIS)
Trifluralin	1582-09-8	1.5E+00	DTSC-SL	3.1E+01	DTSC-SL	6.4E+00	DTSC-SL	1.3E+02	DTSC-SL	1.9E-06	Route (IRIS)	3.0E+01	Route (IRIS)
Vernolate	1929-77-7	--	--	4.2E+00	DTSC-SL	--	--	1.8E+01	DTSC-SL	--	--	4.0E+00	Route (IRIS)
Vinyl chloride	75-01-4	9.5E-03	DTSC-SL	1.0E+02	USEPA RSL	1.6E-01	DTSC-SL	4.4E+02	USEPA RSL	7.8E-05	OEHHA	1.0E+02	IRIS

^a Summarized from Appendix C, Table C-1. USEPA RSLs are provided for completeness when there is no DTSC-SL for a combination of receptor and endpoint; "--" = no value.

^b See HHRA Note 10 for details concerning specification of toxicity values.

(µg/m³)⁻¹ = per (microgram per cubic meter)
µg/m³ = microgram per cubic meter
ATSDR = Agency for Toxic Substances and Disease Registry
CAS# = Chemical Abstracts Service Registry Number
DTSC = California Department of Toxic Substances Control
HEAST = Health Effects Assessment Summary Tables
IRIS = USEPA's *Integrated Risk Information System*
IUR = inhalation unit-risk factor
OEHHA = California Office of Environmental Health Hazard Assessment
PPRTV = provisional peer-reviewed toxicity value
RfC = reference concentration
Route = route extrapolation from an oral toxicity value to an inhalation toxicity value:
IUR (µg/m³)⁻¹ = SFO (mg/kg-day)⁻¹ × (1/80 kg) × 20 m³/day × 0.001 mg/µg
RfC (µg/m³) = RfDo (mg/kg-day) × 80 kg × (1 day/20 m³) × 1000 µg/mg
RSL = Regional Screening Level
SL = screening level
sPPRTV = screening PPRTV
USEPA = U.S. Environmental Protection Agency

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Table 4. Screening Levels for Tap Water that Exceed Maximum Contaminant Levels

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Maximum Contaminant Level (MCL)	
		Cancer Endpoint ^a		Noncancer Endpoint		(µg/L)	
		Screening Level	Source	Screening Level	Source	California	USEPA
1,1,1-Trichloroethane	71-55-6	--	--	2000	DTSC-SL	200	200
1,1,2,2-Tetrachloroethane	79-34-5	0.076	USEPA RSL	110	DTSC-SL	1	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	--	--	10000	USEPA RSL	1200	--
1,1-Dichloroethane	75-34-3	2.8	USEPA RSL	1200	DTSC-SL	5	--
1,1-Dichloroethene	75-35-4	--	--	130	DTSC-SL	6	7
1,2,3-Trichloropropane	96-18-4	0.0002	DTSC-SL	0.62	USEPA RSL	0.005	--
1,2-Dibromo-3-chloropropane	96-12-8	0.0003	DTSC-SL	0.37	USEPA RSL	0.2	0.2
1,2-Dichloroethane	107-06-2	0.17	USEPA RSL	13	USEPA RSL	0.5	5
1,2-Dichloropropane	78-87-5	0.85	USEPA RSL	8.2	USEPA RSL	5	5
1,3-Dichloropropene	542-75-6	0.47	USEPA RSL	39	USEPA RSL	0.5	--
1,4-Dichlorobenzene	106-46-7	0.48	USEPA RSL	570	USEPA RSL	5	75
2,4-Dichlorophenoxyacetic acid	94-75-7	--	--	170	USEPA RSL	70	70
Alachlor	15972-60-8	1.1	USEPA RSL	160	USEPA RSL	2	2
Aluminum	7429-90-5	--	--	20000	USEPA RSL	1000	--
Antimony	7440-36-0	--	--	7.8	USEPA RSL	6	6
Atrazine	1912-24-9	0.3	USEPA RSL	630	USEPA RSL	1	3
Barium	7440-39-3	--	--	3800	USEPA RSL	1000	2000
Bentazon	25057-89-0	--	--	570	USEPA RSL	18	--
Benzene	71-43-2	0.15	DTSC-SL	5.7	DTSC-SL	1	5
Benzo[a]pyrene	50-32-8	0.025	USEPA RSL	6	USEPA RSL	0.2	0.2
bis(2-Ethylhexyl) phthalate	117-81-7	5.6	USEPA RSL	400	USEPA RSL	4	6
Bromate	15541-45-4	0.11	USEPA RSL	80	USEPA RSL	10	10
Cadmium (water)	7440-43-9 (water)	--	--	9.2	USEPA RSL	5	5
Carbofuran	1563-66-2	--	--	94	USEPA RSL	18	40
Carbon tetrachloride	56-23-5	0.46	USEPA RSL	36	DTSC-SL	0.5	5
Chlordane (technical)	12789-03-6	0.021	USEPA RSL	0.77	USEPA RSL	0.1	2
Chlorobenzene	108-90-7	--	--	78	USEPA RSL	70	100
cis-1,2-Dichloroethene	156-59-2	--	--	12	DTSC-SL	6	70
Dalapon	75-99-0	--	--	600	USEPA RSL	200	200
Di(2-ethylhexyl)adipate	103-23-1	65	USEPA RSL	12000	USEPA RSL	400	400
Dichloroacetic acid	79-43-6	1.5	USEPA RSL	79	USEPA RSL	60	60
Dinoseb	88-85-7	--	--	15	USEPA RSL	7	7
Diquat	85-00-7	--	--	44	USEPA RSL	20	20
Endothall	145-73-3	--	--	380	USEPA RSL	100	100
Endrin	72-20-8	--	--	2.3	USEPA RSL	2	2
Ethylbenzene	100-41-4	1.5	USEPA RSL	810	USEPA RSL	300	700
Ethylene dibromide	106-93-4	0.0075	USEPA RSL	1.7	DTSC-SL	0.05	0.05
gamma-HCH	58-89-9	0.052	USEPA RSL	4.5	USEPA RSL	0.2	0.2
Glyphosate	1071-83-6	--	--	2000	USEPA RSL	700	700

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Table 4. Screening Levels for Tap Water that Exceed Maximum Contaminant Levels

Analyte	CAS #	Screening Levels for Tap Water (µg/L)				Maximum Contaminant Level (MCL)	
		Cancer Endpoint ^a		Noncancer Endpoint		(µg/L)	
		Screening Level	Source	Screening Level	Source	California	USEPA
Heptachlor	76-44-8	0.0014	USEPA RSL	0.98	DTSC-SL	0.01	0.4
Heptachlor Epoxide	1024-57-3	0.0014	USEPA RSL	0.058	DTSC-SL	0.01	0.2
Hexachlorobenzene	118-74-1	0.0088	DTSC-SL	4.7	DTSC-SL	1	1
Mercuric Chloride	7487-94-7	--	--	3	DTSC-SL	2	2
methyl tert-butyl Ether	1634-04-4	14	USEPA RSL	6300	USEPA RSL	13	--
Methylene Chloride	75-09-2	1.7	DTSC-SL	100	DTSC-SL	5	5
Molinate	2212-67-1	--	--	30	USEPA RSL	20	--
Nickel	7440-02-0	--	--	220	DTSC-SL	100	--
Nitrate	14797-55-8	--	--	32000	USEPA RSL	45000	10000
Nitrite	14797-65-0	--	--	2000	USEPA RSL	1000	1000
Oxamyl	23135-22-0	--	--	500	USEPA RSL	50	200
Pentachlorophenol	87-86-5	0.041	USEPA RSL	23	USEPA RSL	1	1
Perchlorate Ion	14797-73-0	--	--	14	USEPA RSL	6	15
Picloram	1918-02-1	--	--	1400	USEPA RSL	500	500
Selenium	7782-49-2	--	--	100	USEPA RSL	50	50
Silvex	93-72-1	--	--	110	USEPA RSL	50	50
Simazine	122-34-9	0.61	USEPA RSL	94	USEPA RSL	4	4
Styrene	100-42-5	--	--	1100	DTSC-SL	100	100
Tetrachloroethene	127-18-4	0.084	DTSC-SL	41	USEPA RSL	5	5
Thiobencarb	28249-77-6	--	--	160	USEPA RSL	70	--
Toluene	108-88-3	--	--	410	DTSC-SL	150	1000
trans-1,2-Dichloroethene	156-60-5	--	--	110	DTSC-SL	10	100
Trichloroacetic acid	76-03-9	1.1	USEPA RSL	390	USEPA RSL	60	60
Trichlorofluoromethane	75-69-4	--	--	1700	DTSC-SL	150	--
Vinyl chloride	75-01-4	0.0098	DTSC-SL	45	USEPA RSL	0.5	2

^a Cancer-endpoint screening levels that **exceed an MCL are in bold type**; *all available* cancer-endpoint screening levels are provided for completeness;

"--" = no value.

µg/L = micrograms per liter

CAS# = Chemical Abstracts Service Registry Number

DTSC = California Department of Toxic Substances Control

MCL = Maximum Contaminant Level

RSL = Regional Screening Level

SL = screening level

USEPA = U.S. Environmental Protection Agency