

# **HUMAN HEALTH RISK ASSESSMENT (HHRA) NOTE NUMBER 3, DTSC-modified Screening Levels (DTSC-SLs)**



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

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## **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.<sup>a</sup>

## **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 after their release. HHRA Note 3 was last updated in April 2019.

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<sup>a</sup> <https://dtsc.ca.gov/human-health-risk-hero/>

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”)<sup>b</sup> and review of the May and November 2019 releases of the RSL tables. Exposure factors used in this HHRA Note 3 are consistent with the April 2019 update to HERO HHRA Note 1<sup>c</sup>, 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  $1\times10^{-6}$  (one in one million) and a target hazard quotient value of 1.** In addition, specific recommendations for several contaminants are discussed. Alternatively, in consultation with HERO, the USEPA online 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; 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<sup>d</sup>, or by DTSC’s vapor intrusion guidance. 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

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<sup>b</sup> See HHRA Note 10, available at: <https://dtsc.ca.gov/human-health-risk-hero/>

<sup>c</sup> <https://dtsc.ca.gov/human-health-risk-hero/>

<sup>d</sup> In the June 2015 releases of the RSL tables, USEPA included a vapor pressure greater than 1 millimeter of mercury as a defining characteristic of volatile compounds in addition to the long-standing criterion of a Henry’s law constant greater than  $1\times10^{-5}$  (**one in one hundred thousand**) (atmosphere-cubic meter) per mole.

DTSC-SLs for air are based on the USEPA oral toxicity criteria. Details on toxicity criteria references are provided in HHRA Note 10.<sup>e</sup>

## WHAT'S NEW (June 2020)

- As a continuation of previous iterations of HHRA Note 3, HERO has reviewed the May and November 2019 RSL table updates (see USEPA's "What's New" webpage<sup>f</sup>), 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 February 2020.
- Changes from the April 2019 HHRA Note 3 include:
  - There are new analytes in the USEPA RSL tables resulting in new DTSC-SLs for endosulfan sulfate, styrene-acrylonitrile (SAN) Trimer (THNP isomer), and weathered toxaphene. Additional new analytes include 2-ethyl-1-hexanol, tert-butyl acetate, and several lanthanum compounds, but the USEPA RSL tables should be used for these analytes.
  - DTSC-SL analytes in soil: new values for p,a,a,a-tetrachlorotoluene and thiophanate-methyl result from changes in toxicity criteria, and slightly changed values for Aroclor 1016 and Aroclor 5460 result from changes in USEPA's chemical-parameter values. Soil DTSC-SL values are dropped for arsine, cyanogen, cyanogen bromide, cyanogen chloride, tetryl, thallium acetate, thallium carbonate, and thiocyanic acid because of a change in the number of significant digits in computational comparisons.
  - DTSC-SL analytes in tap water: new values for p,a,a,a-tetrachlorotoluene and thiophanate-methyl result from changes in toxicity criteria.
  - DTSC-SL analytes in ambient air: new values for p,a,a,a-tetrachlorotoluene result from changes in toxicity criteria.

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<sup>e</sup> <https://dtsc.ca.gov/human-health-risk-hero/>

<sup>f</sup> <https://www.epa.gov/risk/regional-screening-levels-rsls-whats-new>

- 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.

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### **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.<sup>9</sup>

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 829 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 568 unique elements, compounds, and mixtures in this iteration of HHRA Note 3.

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<sup>9</sup> <https://www.epa.gov/risk/regional-screening-levels-rsls-whats-new>

## USES OF RSLs and DTSC-SLs

Section 3.0 of the USEPA RSL Users Guide<sup>h</sup> 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”

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<sup>i</sup> and the Preliminary Endangerment Assessment (PEA) Guidance Manual<sup>j</sup> 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

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

<sup>i</sup> <https://dtsc.ca.gov/human-health-risk-hero/>

<sup>j</sup> [https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/PEA\\_Guidance\\_Manual.pdf](https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/01/PEA_Guidance_Manual.pdf)

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.

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 Guide<sup>k</sup>):

- 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.

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

- 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 concentrations in fish 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 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.<sup>1</sup> 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:

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<sup>1</sup> <https://dtsc.ca.gov/regs/toxicity-criteria-for-human-health-risk-assessment/>

- 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.

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  $1 \times 10^{-6}$  (one in one million) and a target hazard quotient value of 1.** All discussion below relies on a target risk of  $1 \times 10^{-6}$  (one in one million) or a target hazard quotient of 1.

### Soil and Tap Water

While it is possible to use the USEPA website's on-line RSL calculator<sup>m</sup> 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,

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<sup>m</sup> [http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl\\_search](http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search)

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 (particularly volatile organic compounds) or a 10% by weight threshold, so screening-level results should be carefully reviewed. 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 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. Please contact the DTSC site toxicologist to ensure appropriate use of air screening levels and attenuation factors 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 or DTSC’s VIG, 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 111 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 (see HHRA Note 10).

## DISCUSSION AND RECOMMENDATIONS FOR SPECIFIC CONTAMINANTS

### Lead (Soil)

In 2007, Cal/EPA OEHHA developed a new toxicity evaluation of lead replacing the 10 µg/dL threshold blood lead concentration with a source-specific “benchmark change” of 1 µg/dL (OEHHA 2007, 2009). 1 µg/dL is the estimated incremental increase in children’s blood lead that would reduce IQ by up to 1 point. LeadSpread 8 was developed in 2011 to reflect the updated Cal/EPA lead toxicity criterion, as well as the need for revision to ensure that the model is adequately protective of women of child-bearing age. Two key exposure parameters utilized in LeadSpread 8 have been updated resulting in LeadSpread 9<sup>n</sup>. The two key exposure parameters are soil ingestion rate and bioavailability of ingested lead. Values for inhalation rate and body surface area, which have a lesser effect on blood lead levels have also changed since the publication of LeadSpread 8 and are updated in LeadSpread 9. For a detailed discussion on the updates to LeadSpread please see Information for Users<sup>o</sup> and Frequently Asked Questions<sup>p</sup> documents.

Unlike LeadSpread 8, LeadSpread 9 does not include a separate worksheet for evaluating adult exposure scenarios. In LeadSpread 9, the residential child, residential adult and adult industrial scenarios are all available on the same worksheet and the child and adult calculations are all implemented within the LeadSpread 9 computational format. The basic equations and majority of default input values in the LeadSpread 9, Worksheet 1 are similar to previous versions. Worksheet 1 of the LeadSpread 9 file include PRG90 calculations for soil under residential and industrial land use scenarios (80 mg/kg and 500 mg/kg, respectively). These PRG90s represent concentrations in soil corresponding to a 90th percentile estimate of blood lead in a child or the fetus of a pregnant adult worker equal to 1 µg/dL. While DTSC has historically used the 99th percentile estimate of blood lead, HERO considers the 90<sup>th</sup> percentile of the distribution appropriate for use in evaluating lead exposures given that the target blood lead level of concern was updated to the more recent health-protective incremental criterion of 1 µg/dL. For most sites without special circumstances, such as markedly elevated or

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<sup>n</sup> <https://dtsc.ca.gov/leadspread-9/>

<sup>o</sup> <https://dtsc.ca.gov/wp-content/uploads/sites/31/2022/03/LeadSpread-9-Information-for-Users-March-2022A.pdf>

<sup>p</sup> <https://dtsc.ca.gov/wp-content/uploads/sites/31/2022/03/LeadSpread9-FREQUENTLY-ASKED-QUESTIONS-March-2022-A.pdf>

reduced lead soil bioavailability, the difference in predicted incremental blood lead and IQ change for exposures to soil lead between 70 mg/kg and 80 mg/kg is within the LeadSpread model uncertainty and does not exceed the *de minimis* level of 1 IQ point identified by OEHHA. The previous residential lead (Pb) soil screening level is 80 mg/kg, based on an estimated increase in blood Pb in a 90<sup>th</sup> percentile child of 1 µg/dL. At 80 mg/kg soil lead concentration, LeadSpread 9 estimates the increase in blood Pb in a 90<sup>th</sup> percentile child as 1.14 µg/dL which, in turn, is associated with an upper-bound estimate of a loss of 1 IQ point. The change is not discernable at one significant figure, the maximum justifiable significant figure. Results of IQ tests are reported as an integer. Fractional IQ points are not measured. The blood lead value of 1.14 would have to rise to 1.5 µg/dL (which would round up to 2.0) to be considered a significant increase. Therefore, HERO continues to recommend that the remedial/mitigation level for residential soil exposure remain at the residential default value of 80 mg/kg lead. Future development of better-defined childhood exposure parameters may change this recommendation. HERO implements this risk-based soil concentration as an Exposure Point Concentration (EPC), calculated as the 95 percent upper confidence limit on the arithmetic mean (95% UCL) of 80 mg/kg or less soil lead for the residential scenario and a 95% UCL of 500 mg/kg or less soil lead for the industrial/commercial scenario.

Regarding assessment of lead risk and evaluating cleanup options, if sufficient data are available, HERO recommends calculating the 95% UCL on the arithmetic mean lead concentration for each exposure area. If individual samples exceed the PRG90, it will not mean that the exposure area itself is in exceedance of the PRG90 as long as the 95% UCL itself is below 80 mg/kg for residential and 500 mg/kg for industrial/commercial, assuming “hot spots” are not present. If “hot spots” (i.e., geographically collocated areas of elevated concentration, “outliers” or individual samples with elevated concentrations) are present, they must be addressed separately.

For initial site screening, when soil sampling results 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. The exposure area used in calculating the 95% UCL should be of appropriate size for the anticipated land use, e.g., a smaller exposure areas for residential use. Depending on the size of the site, multiple exposure areas may need to be evaluated. If there are any questions on the appropriate size of the exposure area, please contact your site toxicologist.

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 LeadSpread 9. If lead is 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 currently undergoing additional revision, and we hope to incorporate additional exposure pathways and environmental media in the near future.

## Cadmium

The cadmium soil and tap water RSLs based on noncancer effects were calculated using the 2012 chronic-duration Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk levels (MRL) of 0.1 µg/kg-day. 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 (7.1 mg/kg) for residential soil and a DTSC-SL of 79 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 DTSC-SLs for cadmium, however, we may do so as part of a future revision; a USEPA RSL is currently available). 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.

## Beryllium and Beryllium Compounds (Soil).

Cal/EPA toxicity criteria for beryllium differ from current USEPA values. 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/m<sup>3</sup>), but the Toxicity Criteria Rule requires use of the IRIS IUR for beryllium and compounds (2.4E-3 per µg/m<sup>3</sup>). 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/m<sup>3</sup>) is higher than the OEHHA chronic inhalation reference level (REL) for beryllium and compounds (7E-3 µg/m<sup>3</sup>) 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, 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 (2.4E-3 per  $\mu\text{g}/\text{m}^3$ ), the RfDo-equivalent from the PHG document (2E-4 mg/kg-day), the chronic REL (7E-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 (8.6E-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 (2.4E-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.

### **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.<sup>q</sup> 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)

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<sup>q</sup> <https://www.dtsc.ca.gov/AssessingRisk/humanrisk2.cfm>

concentrations. Consequently, HERO strongly recommends consideration of site-specific background concentrations of inorganic constituents.

### **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.

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

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<sup>r</sup> [https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl\\_search](https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search)

### **Screening Levels for Soil (Table 1)**

Table 1 presents DTSC-modified screening values for soil that are more stringent than the corresponding USEPA value. 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.

### **Screening Levels for Tap Water (Table 2)**

Table 2 presents DTSC-modified screening values for tap water that are more stringent than the corresponding USEPA value. 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.

### **Screening Levels for Air (Table 3)**

Table 3 presents DTSC-modified screening values for air contaminants that are more stringent than the corresponding USEPA RSL value. 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.

### **Maximum Contaminant Levels (MCLs) (Table 4)**

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.

### **Supporting Documentation**

Supporting documentation of the computations for the DTSC-SLs can be provided upon request (see the HERO Issue Contact information earlier in this Note). 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.

**Table 1: HHRA Note 3, June 2020, DTSC-recommended Screening Levels for Soil Analytes**

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Cancer Endpoint,	Screening Level for Commercial/Industrial Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
1,1,1,2-Tetrachloroethane	630-20-6	2	USEPA RSL	550	DTSC-SL	8.8	USEPA RSL	2700	DTSC-SL
1,1,1-Trichloroethane	71-55-6	--	--	1700	DTSC-SL	--	--	7200	DTSC-SL
1,1,2,2-Tetrachloroethane	79-34-5	0.6	USEPA RSL	700	DTSC-SL	2.7	USEPA RSL	4300	DTSC-SL
1,1,2-Trichloropropane	598-77-6	--	--	170	DTSC-SL	--	--	1100	DTSC-SL
1,1-Dichloroethane	75-34-3	3.6	USEPA RSL	1600	DTSC-SL	16	USEPA RSL	7100	DTSC-SL
1,1-Dichloroethene	75-35-4	--	--	83	DTSC-SL	--	--	350	DTSC-SL
1,2,3-Trichlorobenzene	87-61-6	--	--	40	DTSC-SL	--	--	300	DTSC-SL
1,2,3-Trichloropropane	96-18-4	0.0015	DTSC-SL	4.8	USEPA RSL	0.021	DTSC-SL	21	USEPA RSL
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	17	DTSC-SL	--	--	150	DTSC-SL
1,2,4-Tribromobenzene	615-54-3	--	--	280	DTSC-SL	--	--	2500	DTSC-SL
1,2,4-Trichlorobenzene	120-82-1	7.8	DTSC-SL	58	USEPA RSL	35	DTSC-SL	260	USEPA RSL
1,2-Dibromo-3-chloropropane	96-12-8	0.0043	DTSC-SL	4.7	USEPA RSL	0.057	DTSC-SL	25	USEPA RSL
1,2-Dinitrobenzene	528-29-0	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
1,2-Diphenylhydrazine	122-66-7	0.68	USEPA RSL	--	--	1.9	DTSC-SL	--	--
1,2-Phenylenediamine	95-54-5	4.5	USEPA RSL	250	USEPA RSL	12	DTSC-SL	2100	DTSC-SL
1,3,5-Trinitrobenzene	99-35-4	--	--	2200	USEPA RSL	--	--	29000	DTSC-SL
1,3-Butadiene	106-99-0	0.014	DTSC-SL	1.8	USEPA RSL	0.062	DTSC-SL	7.6	USEPA RSL
1,3-Dibromobenzene	108-36-1	--	--	16	DTSC-SL	--	--	100	DTSC-SL
1,3-Dichloropropane	142-28-9	--	--	410	DTSC-SL	--	--	2200	DTSC-SL
1,3-Dinitrobenzene	99-65-0	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
1,3-Phenylenediamine	108-45-2	--	--	380	USEPA RSL	--	--	3200	DTSC-SL
1,4-Benzenediamine-2-methyl sulfate	6369-59-1	5.4	USEPA RSL	19	USEPA RSL	15	DTSC-SL	160	DTSC-SL
1,4-Dibromobenzene	106-37-6	--	--	420	DTSC-SL	--	--	2900	DTSC-SL
1,4-Dinitrobenzene	100-25-4	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
1,4-Dithiane	505-29-3	--	--	550	DTSC-SL	--	--	4700	DTSC-SL
1,4-Phenylenediamine	106-50-3	--	--	63	USEPA RSL	--	--	530	DTSC-SL
1-Bromo-3-fluorobenzene	1073-06-9	--	--	8.8	DTSC-SL	--	--	50	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/Industrial Soil, Cancer Endpoint, for Commercial/Industrial Soil, (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
1-Bromo-4-fluorobenzene	460-00-4	--	--	8.9	DTSC-SL	--	--	51	DTSC-SL
1-Chlorobutane	109-69-3	--	--	270	DTSC-SL	--	--	1200	DTSC-SL
1-Methylnaphthalene	90-12-0	9.9	DTSC-SL	3400	DTSC-SL	30	DTSC-SL	22000	DTSC-SL
2-(2-methoxyethoxy)-Ethanol	111-77-3	--	--	2500	USEPA RSL	--	--	21000	DTSC-SL
2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether	1163-19-5	780	USEPA RSL	440	USEPA RSL	2100	DTSC-SL	3700	DTSC-SL
2,2',4,4',5,5'-Hexabromodiphenyl ether	68631-49-2	--	--	13	USEPA RSL	--	--	110	DTSC-SL
2,2',4,4',5-Pentabromodiphenyl ether	60348-60-9	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
2,2',4,4'-Tetrabromodiphenyl ether	5436-43-1	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
2,3,4,6-Tetrachlorophenol	58-90-2	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.0000048	USEPA RSL	0.000051	USEPA RSL	0.000018	DTSC-SL	0.0006	DTSC-SL
2,3-Dichloropropanol	616-23-9	--	--	190	USEPA RSL	--	--	1600	DTSC-SL
2,4,4-Trimethylpentene	25167-70-8	--	--	40	DTSC-SL	--	--	170	DTSC-SL
2,4,5-Trichlorophenol	95-95-4	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
2,4,5-Trichlorophenoxyacetic acid	93-76-5	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
2,4,6-Tribromophenol	118-79-6	--	--	570	USEPA RSL	--	--	4800	DTSC-SL
2,4,6-Trichloroaniline	634-93-5	78	USEPA RSL	1.9	USEPA RSL	210	DTSC-SL	16	DTSC-SL
2,4,6-Trichloroaniline hydrochloride	33663-50-2	19	USEPA RSL	--	--	51	DTSC-SL	--	--
2,4,6-Trichlorophenol	88-06-2	7.8	DTSC-SL	63	USEPA RSL	21	DTSC-SL	530	DTSC-SL
2,4,6-Trinitrotoluene	118-96-7	21	USEPA RSL	36	USEPA RSL	79	DTSC-SL	420	DTSC-SL
2,4/2,6-Dinitrotoluenes	E1615210	0.8	USEPA RSL	57	DTSC-SL	2.2	DTSC-SL	480	DTSC-SL
2,4-Dichlorophenol	120-83-2	--	--	190	USEPA RSL	--	--	1600	DTSC-SL
2,4-Dichlorophenoxyacetic acid	94-75-7	--	--	700	USEPA RSL	--	--	7300	DTSC-SL
2,4-Dichlorophenoxybutyric acid	94-82-6	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
2,4-Dimethylaniline	95-68-1	2.7	USEPA RSL	130	USEPA RSL	7.4	DTSC-SL	1100	DTSC-SL
2,4-Dimethylaniline hydrochloride	21436-96-4	0.94	USEPA RSL	--	--	2.6	DTSC-SL	--	--
2,4-Dimethylphenol	105-67-9	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
2,4-Dinitrophenol	51-28-5	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
2,4-Dinitrotoluene	121-14-2	1.7	USEPA RSL	130	USEPA RSL	4.7	DTSC-SL	1000	DTSC-SL
2,6-Dimethylphenol	576-26-1	--	--	38	USEPA RSL	--	--	320	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/ Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/ Industrial Soil, Cancer Endpoint,	Screening Level for Commercial/ Industrial Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/ Industrial Soil, Noncancer Endpoint
2,6-Dinitrotoluene	606-20-2	0.36	USEPA RSL	19	USEPA RSL	0.99	DTSC-SL	160	DTSC-SL
2-Acetylaminofluorene	53-96-3	0.14	USEPA RSL	--	--	0.39	DTSC-SL	--	--
2-Amino-4,6-dinitrotoluene	35572-78-2	--	--	150	USEPA RSL	--	--	2200	DTSC-SL
2-Butoxyethanol	111-76-2	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
2-Chloroethanol	107-07-3	--	--	1300	DTSC-SL	--	--	13000	DTSC-SL
2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester Sulfite	140-57-8	22	USEPA RSL	3200	USEPA RSL	59	DTSC-SL	26000	DTSC-SL
2-Chloronaphthalene	91-58-7	--	--	4100	DTSC-SL	--	--	27000	DTSC-SL
2-Chloronitrobenzene	88-73-3	1.8	USEPA RSL	190	USEPA RSL	4.9	DTSC-SL	1500	DTSC-SL
2-Chlorophenol	95-57-8	--	--	340	DTSC-SL	--	--	3900	DTSC-SL
2-Chrotoluene	95-49-8	--	--	470	DTSC-SL	--	--	2500	DTSC-SL
2-Mercaptobenzothiazole	149-30-4	49	USEPA RSL	250	USEPA RSL	130	DTSC-SL	2100	DTSC-SL
2-Methoxy-5-nitroaniline	99-59-2	11	USEPA RSL	--	--	30	DTSC-SL	--	--
2-Methyl-1,4-benzenediamine dihydrochloride	615-45-2	--	--	19	USEPA RSL	--	--	160	DTSC-SL
2-Methyl-5-nitroaniline	99-55-8	60	USEPA RSL	1300	USEPA RSL	160	DTSC-SL	11000	DTSC-SL
2-Methylaniline hydrochloride	636-21-5	4.2	USEPA RSL	--	--	11	DTSC-SL	--	--
2-Methylbenzene,1-4-diamine monohydrochloride	74612-12-7	--	--	13	USEPA RSL	--	--	110	DTSC-SL
2-Methylbenzene-1,4-diamine sulfate	615-50-9	5.4	USEPA RSL	19	USEPA RSL	15	DTSC-SL	160	DTSC-SL
2-Methylnaphthalene	91-57-6	--	--	190	DTSC-SL	--	--	1300	DTSC-SL
2-Methylphenol	95-48-7	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL
2-Naphthylamine	91-59-8	0.3	USEPA RSL	--	--	0.82	DTSC-SL	--	--
2-Nitroaniline	88-74-4	--	--	630	USEPA RSL	--	--	5200	DTSC-SL
2-Nitrotoluene	88-72-2	2.2	DTSC-SL	62	DTSC-SL	10	DTSC-SL	710	DTSC-SL
2-Phenylphenol	90-43-7	280	USEPA RSL	--	--	760	DTSC-SL	--	--
3,3'-Dichlorobenzidine	91-94-1	0.45	DTSC-SL	--	--	1.2	DTSC-SL	--	--
3,3'-Dimethoxybenzidine	119-90-4	0.34	USEPA RSL	--	--	0.93	DTSC-SL	--	--
3,3'-Dimethylbenzidine	119-93-7	0.049	USEPA RSL	--	--	0.13	DTSC-SL	--	--
3,4-Dimethylphenol	95-65-8	--	--	63	USEPA RSL	--	--	530	DTSC-SL
3-Methylcholanthrene	56-49-5	0.0055	USEPA RSL	--	--	0.067	DTSC-SL	--	--

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/Industrial Soil, Cancer Endpoint, (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
3-Methylphenol	108-39-4	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL
3-Nitrotoluene	99-08-1	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL
4-(2-Methyl-4-chlorophenoxy)butyric acid	94-81-5	--	--	280	USEPA RSL	--	--	2300	DTSC-SL
4,4'-DDD	72-54-8	2.3	USEPA RSL	1.9	USEPA RSL	6.2	DTSC-SL	16	DTSC-SL
4,4'-DDE	72-55-9	2	USEPA RSL	23	USEPA RSL	9.3	USEPA RSL	340	DTSC-SL
4,4'-DDT	50-29-3	1.9	USEPA RSL	37	USEPA RSL	7.1	DTSC-SL	430	DTSC-SL
4,4'-Dichlorobenzophenone	90-98-2	--	--	570	USEPA RSL	--	--	4800	DTSC-SL
4,4'-Dichlorodiphenyl sulfone	80-07-9	--	--	51	USEPA RSL	--	--	420	DTSC-SL
4,4'-Methylene bis(N,N'-dimethyl)aniline	101-61-1	12	USEPA RSL	--	--	32	DTSC-SL	--	--
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.081	DTSC-SL	130	USEPA RSL	0.99	DTSC-SL	1100	DTSC-SL
4,4'-Methylenebisbenzeneamine	101-77-9	0.34	USEPA RSL	28000000	USEPA RSL	0.93	DTSC-SL	120000000	USEPA RSL
4,6-Dinitro-2-methylphenol	534-52-1	--	--	5.1	USEPA RSL	--	--	42	DTSC-SL
4,6-Dinitro-o-cyclohexyl phenol	131-89-5	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
4-Amino-2,6-dinitrotoluene	19406-51-0	--	--	150	USEPA RSL	--	--	2100	DTSC-SL
4-Aminobiphenyl	92-67-1	0.026	USEPA RSL	--	--	0.071	DTSC-SL	--	--
4-Chloro-2-methylaniline hydrochloride	3165-93-3	1.2	USEPA RSL	--	--	3.2	DTSC-SL	--	--
4-Chloro-3-methylphenol	59-50-7	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
4-Chloroaniline	106-47-8	2.7	USEPA RSL	250	USEPA RSL	7.4	DTSC-SL	2100	DTSC-SL
4-Chloronitrobenzene	100-00-5	9	USEPA RSL	44	USEPA RSL	25	DTSC-SL	370	DTSC-SL
4-Chlorotoluene	106-43-4	--	--	440	DTSC-SL	--	--	2300	DTSC-SL
4-Dimethylaminoazobenzene	60-11-7	0.12	USEPA RSL	--	--	0.32	DTSC-SL	--	--
4-Methylphenol	106-44-5	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
4-Nitroaniline	100-01-6	27	USEPA RSL	250	USEPA RSL	74	DTSC-SL	2100	DTSC-SL
4-Nitropyrene	57835-92-4	0.42	USEPA RSL	--	--	1.1	DTSC-SL	--	--
4-Nitrotoluene	99-99-0	34	USEPA RSL	250	USEPA RSL	93	DTSC-SL	2100	DTSC-SL
7,12-Dimethylbenz[a]anthracene	57-97-6	0.00046	USEPA RSL	--	--	0.0051	DTSC-SL	--	--
9,10-Anthraquinone	84-65-1	14	USEPA RSL	130	USEPA RSL	37	DTSC-SL	1100	DTSC-SL
Acenaphthene	83-32-9	--	--	3300	DTSC-SL	--	--	23000	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/Industrial Soil, Cancer Endpoint,	Reference for Screening Level for Commercial/Industrial Soil (mg/kg), Noncancer Endpoint	Screening Level for Commercial/Industrial Soil, Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
Acephate	30560-19-1	--	--	76	USEPA RSL	--	--	640	DTSC-SL	
Acetaldehyde	75-07-0	9.1	DTSC-SL	82	USEPA RSL	40	DTSC-SL	340	USEPA RSL	
Acetochlor	34256-82-1	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Acetophenone	98-86-2	--	--	6000	DTSC-SL	--	--	55000	DTSC-SL	
Acifluorfen sodium	62476-59-9	--	--	820	USEPA RSL	--	--	6900	DTSC-SL	
Acrylamide	79-06-1	0.24	USEPA RSL	130	USEPA RSL	3	DTSC-SL	1100	DTSC-SL	
Alachlor	15972-60-8	9.7	USEPA RSL	630	USEPA RSL	26	DTSC-SL	5300	DTSC-SL	
Aldicarb	116-06-3	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Aldicarb sulfone	1646-88-4	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Aldrin	309-00-2	0.039	USEPA RSL	2.3	USEPA RSL	0.18	USEPA RSL	34	DTSC-SL	
alpha-HCH	319-84-6	0.086	USEPA RSL	510	USEPA RSL	0.24	DTSC-SL	4200	DTSC-SL	
Ametryn	834-12-8	--	--	570	USEPA RSL	--	--	4800	DTSC-SL	
Amitraz	33089-61-1	--	--	160	USEPA RSL	--	--	1300	DTSC-SL	
Aniline	62-53-3	95	USEPA RSL	440	USEPA RSL	260	DTSC-SL	3700	DTSC-SL	
Anthracene	120-12-7	--	--	17000	DTSC-SL	--	--	130000	DTSC-SL	
Aroclor 1016	12674-11-2	6.6	USEPA RSL	4	DTSC-SL	17	DTSC-SL	29	DTSC-SL	
Aroclor 1221	11104-28-2	0.2	USEPA RSL	--	--	0.53	DTSC-SL	--	--	
Aroclor 1232	11141-16-5	0.17	USEPA RSL	--	--	0.49	DTSC-SL	--	--	
Aroclor 1242	53469-21-9	0.23	USEPA RSL	--	--	0.58	DTSC-SL	--	--	
Aroclor 1248	12672-29-6	0.23	USEPA RSL	--	--	0.58	DTSC-SL	--	--	
Aroclor 1254	11097-69-1	0.24	USEPA RSL	1.2	USEPA RSL	0.59	DTSC-SL	8.4	DTSC-SL	
Aroclor 1260	11096-82-5	0.24	USEPA RSL	--	--	0.6	DTSC-SL	--	--	
Aroclor 5460	11126-42-4	--	--	35	USEPA RSL	--	--	260	DTSC-SL	
Arsenic	7440-38-2	0.11	DTSC-SL	0.41	DTSC-SL	0.36	DTSC-SL	4.2	DTSC-SL	
Asulam	3337-71-1	--	--	2300	USEPA RSL	--	--	19000	DTSC-SL	
Atrazine	1912-24-9	2.4	USEPA RSL	2200	USEPA RSL	6.4	DTSC-SL	19000	DTSC-SL	
Auramine	492-80-8	0.62	USEPA RSL	--	--	1.7	DTSC-SL	--	--	
Avermectin B1a	65195-55-3	--	--	25	USEPA RSL	--	--	210	DTSC-SL	
Azinphos-methyl	86-50-0	--	--	190	USEPA RSL	--	--	1600	DTSC-SL	
Azodicarbonamide	123-77-3	--	--	8600	USEPA RSL	--	--	39000	DTSC-SL	
Benfluralin	1861-40-1	--	--	370	DTSC-SL	--	--	4800	DTSC-SL	

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Benomyl	17804-35-2	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL
Bensulfuron methyl	83055-99-6	--	--	13000	USEPA RSL	--	--	110000	DTSC-SL
Bentazon	25057-89-0	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
Benzaldehyde	100-52-7	46	DTSC-SL	4300	DTSC-SL	210	DTSC-SL	29000	DTSC-SL
Benzene	71-43-2	0.33	DTSC-SL	11	DTSC-SL	1.4	DTSC-SL	46	DTSC-SL
Benzidine	92-87-5	0.00024	DTSC-SL	190	USEPA RSL	0.003	DTSC-SL	1600	DTSC-SL
Benzo[a]anthracene	56-55-3	1.1	USEPA RSL	--	--	12	DTSC-SL	--	--
Benzo[a]pyrene	50-32-8	0.11	USEPA RSL	18	USEPA RSL	1.3	DTSC-SL	130	DTSC-SL
Benzo[b]fluoranthene	205-99-2	1.1	USEPA RSL	--	--	13	DTSC-SL	--	--
Benzo[jj]fluoranthene	205-82-3	0.42	USEPA RSL	--	--	1.1	DTSC-SL	--	--
Benzo[k]fluoranthene	207-08-9	11	USEPA RSL	--	--	130	DTSC-SL	--	--
Benzoic acid	65-85-0	--	--	250000	USEPA RSL	--	--	2100000	DTSC-SL
Benzotrichloride	98-07-7	0.028	DTSC-SL	--	--	0.13	DTSC-SL	--	--
Benzyl alcohol	100-51-6	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
Beryllium	7440-41-7	1600	USEPA RSL	16	DTSC-SL	6900	USEPA RSL	230	DTSC-SL
Beryllium Sulfate	13510-49-1	1600	DTSC-SL	16	DTSC-SL	6900	DTSC-SL	230	DTSC-SL
beta-HCH	319-85-7	0.3	USEPA RSL	--	--	0.82	DTSC-SL	--	--
Bifenox	42576-02-3	--	--	570	USEPA RSL	--	--	4800	DTSC-SL
Biphenothrin	82657-04-3	--	--	950	USEPA RSL	--	--	7900	DTSC-SL
Biphenyl	92-52-4	56	DTSC-SL	47	USEPA RSL	260	DTSC-SL	200	USEPA RSL
bis(2-Chloroethoxy) methane	111-91-1	--	--	190	USEPA RSL	--	--	1600	DTSC-SL
bis(2-Chloroethyl) Ether	111-44-4	0.1	DTSC-SL	--	--	0.47	DTSC-SL	--	--
bis(2-Ethylhexyl) phthalate	117-81-7	39	USEPA RSL	1300	USEPA RSL	110	DTSC-SL	11000	DTSC-SL
bis-Chloroisopropyl Ether	108-60-1	--	--	2000	DTSC-SL	--	--	16000	DTSC-SL
Bisphenol A	80-05-7	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL
Bromodichloromethane	75-27-4	0.29	USEPA RSL	270	DTSC-SL	1.3	USEPA RSL	1300	DTSC-SL
Bromoform	75-25-2	19	USEPA RSL	530	DTSC-SL	86	USEPA RSL	3000	DTSC-SL
Bromophos	2104-96-3	--	--	340	DTSC-SL	--	--	3800	DTSC-SL
Bromoxynil	1689-84-5	5.3	USEPA RSL	950	USEPA RSL	14	DTSC-SL	7900	DTSC-SL
Bromoxynil octanoate	1689-99-2	6.7	USEPA RSL	1100	DTSC-SL	32	USEPA RSL	15000	DTSC-SL
Butyl benzyl phthalate	85-68-7	290	USEPA RSL	13000	USEPA RSL	780	DTSC-SL	110000	DTSC-SL

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Butylate	2008-41-5	--	--	3200	DTSC-SL	--	--	33000	DTSC-SL	
Butylated hydroxyanisole	25013-16-5	2700	USEPA RSL	--	--	7400	DTSC-SL	--	--	
Butylated Hydroxytoluene	128-37-0	150	USEPA RSL	19000	USEPA RSL	410	DTSC-SL	160000	DTSC-SL	
Butylphthalyl butylglycolate	85-70-1	--	--	63000	USEPA RSL	--	--	530000	DTSC-SL	
Cacodylic acid	75-60-5	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Cadmium (diet)	7440-43-9 (diet)	910	DTSC-SL	7.1	USEPA RSL	4000	DTSC-SL	79	DTSC-SL	
Caprolactam	105-60-2	--	--	31000	USEPA RSL	--	--	260000	DTSC-SL	
Captafol	2425-06-1	3.6	USEPA RSL	130	USEPA RSL	9.9	DTSC-SL	1100	DTSC-SL	
Captan	133-06-2	240	USEPA RSL	8200	USEPA RSL	640	DTSC-SL	69000	DTSC-SL	
Carbaryl	63-25-2	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Carbofuran	1563-66-2	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
Carbon tetrachloride	56-23-5	0.65	USEPA RSL	52	DTSC-SL	2.9	USEPA RSL	250	DTSC-SL	
Carbonyl sulfide	463-58-1	--	--	6.7	DTSC-SL	--	--	28	DTSC-SL	
Carbosulfan	55285-14-8	--	--	630	USEPA RSL	--	--	5300	DTSC-SL	
Carboxin	5234-68-4	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Chloral hydrate	302-17-0	--	--	6900	DTSC-SL	--	--	80000	DTSC-SL	
Chloramben	133-90-4	--	--	950	USEPA RSL	--	--	7900	DTSC-SL	
Chloranil	118-75-2	1.3	USEPA RSL	--	--	3.7	DTSC-SL	--	--	
Chlordane (technical)	12789-03-6	1.7	USEPA RSL	35	USEPA RSL	6.1	DTSC-SL	360	DTSC-SL	
Chlorfenvinphos	470-90-6	--	--	44	USEPA RSL	--	--	370	DTSC-SL	
Chlorimuron-ethyl	90982-32-4	--	--	5700	USEPA RSL	--	--	48000	DTSC-SL	
Chloroacetaldehyde	107-20-0	0.53	DTSC-SL	--	--	2.4	DTSC-SL	--	--	
Chlorobenzilate	510-15-6	4.9	USEPA RSL	1300	USEPA RSL	13	DTSC-SL	11000	DTSC-SL	
Chlorodibromomethane	124-48-1	0.94	DTSC-SL	470	DTSC-SL	4.1	DTSC-SL	2500	DTSC-SL	
Chlorothalonil	1897-45-6	32	DTSC-SL	950	USEPA RSL	87	DTSC-SL	7900	DTSC-SL	
Chlorozotocin	54749-90-5	0.0023	USEPA RSL	--	--	0.0062	DTSC-SL	--	--	
Chlorpropham	101-21-3	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL	
Chlorpyrifos	2921-88-2	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Chlorpyrifos-methyl	5598-13-0	--	--	630	USEPA RSL	--	--	5300	DTSC-SL	
Chlorsulfuron	64902-72-3	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL	

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Chlorthal-dimethyl	1861-32-1	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
Chlorthiophos	60238-56-4	--	--	51	USEPA RSL	--	--	420	DTSC-SL
Chromium (VI)	18540-29-9	0.3	USEPA RSL	230	USEPA RSL	6.2	DTSC-SL	3500	USEPA RSL
Chrysene	218-01-9	110	USEPA RSL	--	--	1300	DTSC-SL	--	--
cis-1,2-Dichloroethene	156-59-2	--	--	18	DTSC-SL	--	--	84	DTSC-SL
Clofentezine	74115-24-5	--	--	820	USEPA RSL	--	--	6900	DTSC-SL
Cupferron	135-20-6	2.5	USEPA RSL	--	--	6.7	DTSC-SL	--	--
Cyanazine	21725-46-2	0.65	USEPA RSL	130	USEPA RSL	1.8	DTSC-SL	1100	DTSC-SL
Cyclohexylamine	108-91-8	--	--	13000	DTSC-SL	--	--	120000	DTSC-SL
Cyfluthrin	68359-37-5	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL
Cyhalothrin	68085-85-8	--	--	63	USEPA RSL	--	--	530	DTSC-SL
Cyromazine	66215-27-8	--	--	32000	USEPA RSL	--	--	260000	DTSC-SL
Dalapon	75-99-0	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
Daminozide	1596-84-5	30	USEPA RSL	9500	USEPA RSL	82	DTSC-SL	79000	DTSC-SL
Danitol	39515-41-8	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL
Demeton	8065-48-3	--	--	2.5	USEPA RSL	--	--	21	DTSC-SL
Di(2-ethylhexyl)adipate	103-23-1	450	USEPA RSL	38000	USEPA RSL	1200	DTSC-SL	320000	DTSC-SL
Diallate	2303-16-4	8.9	USEPA RSL	--	--	24	DTSC-SL	--	--
Diazinon	333-41-5	--	--	44	USEPA RSL	--	--	370	DTSC-SL
Dibenz[a,h]anthracene	53-70-3	0.028	DTSC-SL	--	--	0.31	DTSC-SL	--	--
Dibenzo[a,e]pyrene	192-65-4	0.042	USEPA RSL	--	--	0.11	DTSC-SL	--	--
Dibenzofuran	132-64-9	--	--	66	DTSC-SL	--	--	650	DTSC-SL
Dibenzothiophene	132-65-0	--	--	760	DTSC-SL	--	--	10000	DTSC-SL
Dibutyltin Compounds	E1790660	--	--	19	USEPA RSL	--	--	160	DTSC-SL
Dicamba	1918-00-9	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
Dichloroacetic acid	79-43-6	11	USEPA RSL	250	USEPA RSL	30	DTSC-SL	2100	DTSC-SL
Dichlorvos	62-73-7	1.9	USEPA RSL	32	USEPA RSL	5.1	DTSC-SL	260	DTSC-SL
Dicrotophos	141-66-2	--	--	1.9	USEPA RSL	--	--	16	DTSC-SL
Dieldrin	60-57-1	0.034	USEPA RSL	3.2	USEPA RSL	0.093	DTSC-SL	26	DTSC-SL
Diethanolamine	111-42-2	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
Diethyl phthalate	84-66-2	--	--	51000	USEPA RSL	--	--	420000	DTSC-SL

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Diethylene glycol monobutyl Ether	112-34-5	--	--	1900	USEPA RSL	--	--	15000	DTSC-SL	
Diethylene glycol monoethyl Ether	111-90-0	--	--	3800	USEPA RSL	--	--	31000	DTSC-SL	
Diethylformamide	617-84-5	--	--	69	DTSC-SL	--	--	790	DTSC-SL	
Diethylstilbestrol	56-53-1	0.0016	USEPA RSL	--	--	0.0042	DTSC-SL	--	--	
Difenoquat	43222-48-6	--	--	5200	USEPA RSL	--	--	44000	DTSC-SL	
Diflubenzuron	35367-38-5	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
diisopropyl Methylphosphonate	1445-75-6	--	--	4200	DTSC-SL	--	--	34000	DTSC-SL	
Dimethipin	55290-64-7	--	--	1400	USEPA RSL	--	--	12000	DTSC-SL	
Dimethoate	60-51-5	--	--	140	USEPA RSL	--	--	1200	DTSC-SL	
Dimethyl methylphosphonate	756-79-6	320	USEPA RSL	3800	USEPA RSL	870	DTSC-SL	32000	DTSC-SL	
Dimethyl terephthalate	120-61-6	--	--	4200	DTSC-SL	--	--	28000	DTSC-SL	
di-n-Butyl Phthalate	84-74-2	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Dinitrotoluenes	25321-14-6	1.2	USEPA RSL	57	USEPA RSL	3.3	DTSC-SL	480	DTSC-SL	
di-n-Octyl Phthalate	117-84-0	--	--	630	USEPA RSL	--	--	5300	DTSC-SL	
Dinoseb	88-85-7	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Diphenamid	957-51-7	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL	
Diphenyl Sulfone	127-63-9	--	--	51	USEPA RSL	--	--	420	DTSC-SL	
Diphenylamine	122-39-4	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Diphenyl-p-phenylenediamine	74-31-7	--	--	19	USEPA RSL	--	--	160	DTSC-SL	
Diquat	85-00-7	--	--	140	USEPA RSL	--	--	1200	DTSC-SL	
Direct Black 38	1937-37-7	0.073	DTSC-SL	--	--	0.2	DTSC-SL	--	--	
Direct Blue 6	2602-46-2	0.073	USEPA RSL	--	--	0.2	DTSC-SL	--	--	
Direct Brown 95	16071-86-6	0.081	USEPA RSL	--	--	0.22	DTSC-SL	--	--	
Disulfoton	298-04-4	--	--	2.5	USEPA RSL	--	--	21	DTSC-SL	
Diuron	330-54-1	--	--	130	USEPA RSL	--	--	1100	DTSC-SL	
Dodine	2439-10-3	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Endosulfan	115-29-7	--	--	450	DTSC-SL	--	--	6000	DTSC-SL	
Endosulfan Sulfate	1031-07-8	--	--	380	USEPA RSL	--	--	3200	DTSC-SL	
Endothall	145-73-3	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Endrin	72-20-8	--	--	19	USEPA RSL	--	--	160	DTSC-SL	
Epichlorohydrin	106-89-8	1.8	DTSC-SL	19	USEPA RSL	8.1	DTSC-SL	82	USEPA RSL	

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Ethephon	16672-87-0	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
Ethion	563-12-2	--	--	32	USEPA RSL	--	--	260	DTSC-SL	
Ethyl Ether	60-29-7	--	--	2200	DTSC-SL	--	--	10000	DTSC-SL	
Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5	--	--	0.63	USEPA RSL	--	--	5.3	DTSC-SL	
Ethylene cyanohydrin	109-78-4	--	--	4400	USEPA RSL	--	--	37000	DTSC-SL	
Ethylene diamine	107-15-3	--	--	6400	DTSC-SL	--	--	77000	DTSC-SL	
Ethylene dibromide	106-93-4	0.036	USEPA RSL	7.1	DTSC-SL	0.16	USEPA RSL	30	DTSC-SL	
Ethylene glycol	107-21-1	--	--	130000	USEPA RSL	--	--	1100000	DTSC-SL	
Ethylene thiourea	96-45-7	4.9	DTSC-SL	5.1	USEPA RSL	13	DTSC-SL	42	DTSC-SL	
Ethylphthalyl ethylglycolate	84-72-0	--	--	190000	USEPA RSL	--	--	1600000	DTSC-SL	
Fenamiphos	22224-92-6	--	--	16	USEPA RSL	--	--	130	DTSC-SL	
Fenvalerate	51630-58-1	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL	
Fluometuron	2164-17-2	--	--	820	USEPA RSL	--	--	6900	DTSC-SL	
Fluoranthene	206-44-0	--	--	2400	USEPA RSL	--	--	18000	DTSC-SL	
Fluorene	86-73-7	--	--	2300	DTSC-SL	--	--	17000	DTSC-SL	
Fluoridone	59756-60-4	--	--	5100	USEPA RSL	--	--	42000	DTSC-SL	
Flurprimidol	56425-91-3	--	--	2500	USEPA RSL	--	--	21000	DTSC-SL	
Flusilazole	85509-19-9	--	--	130	USEPA RSL	--	--	1100	DTSC-SL	
Flutolanil	66332-96-5	--	--	32000	USEPA RSL	--	--	260000	DTSC-SL	
Fluvalinate	69409-94-5	--	--	630	USEPA RSL	--	--	5300	DTSC-SL	
Folpet	133-07-3	--	--	5700	USEPA RSL	--	--	48000	DTSC-SL	
Fomesafen	72178-02-0	--	--	160	USEPA RSL	--	--	1300	DTSC-SL	
Fonofos	944-22-9	--	--	130	USEPA RSL	--	--	1100	DTSC-SL	
Formaldehyde	50-00-0	11	USEPA RSL	700	DTSC-SL	50	USEPA RSL	3000	DTSC-SL	
Fosetyl-al	39148-24-8	--	--	160000	USEPA RSL	--	--	1300000	DTSC-SL	
Furan	110-00-9	--	--	9.5	DTSC-SL	--	--	44	DTSC-SL	
Furazolidone	67-45-8	0.14	USEPA RSL	--	--	0.39	DTSC-SL	--	--	
Furium	531-82-8	0.36	USEPA RSL	--	--	0.99	DTSC-SL	--	--	
Furmecyclox	60568-05-0	18	USEPA RSL	--	--	49	DTSC-SL	--	--	
gamma-HCH	58-89-9	0.57	USEPA RSL	21	USEPA RSL	2	DTSC-SL	240	DTSC-SL	

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Glufosinate-ammonium	77182-82-2	--	--	380	USEPA RSL	--	--	3200	DTSC-SL	
Glutaraldehyde	111-30-8	--	--	6000	USEPA RSL	--	--	48000	DTSC-SL	
Glyphosate	1071-83-6	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Guanidine	113-00-8	--	--	690	DTSC-SL	--	--	8000	DTSC-SL	
Guanidine Chloride	50-01-1	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Guanidine Nitrate	506-93-4	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL	
Haloxyfop-methyl	69806-40-2	--	--	3.2	USEPA RSL	--	--	26	DTSC-SL	
HCH (mixed isomers)	608-73-1	0.14	DTSC-SL	--	--	0.37	DTSC-SL	--	--	
Heptachlor	76-44-8	0.13	USEPA RSL	38	DTSC-SL	0.63	USEPA RSL	510	DTSC-SL	
Heptachlor Epoxide	1024-57-3	0.07	USEPA RSL	0.99	DTSC-SL	0.33	USEPA RSL	14	DTSC-SL	
Hexabromobenzene	87-82-1	--	--	150	DTSC-SL	--	--	2000	DTSC-SL	
Hexachlorobenzene	118-74-1	0.19	DTSC-SL	49	DTSC-SL	0.86	DTSC-SL	470	DTSC-SL	
Hexachlorobutadiene	87-68-3	1.2	USEPA RSL	29	DTSC-SL	5.3	USEPA RSL	160	DTSC-SL	
Hexachlorodibenzo-p-dioxin Mixture	34465-46-8	0.0001	USEPA RSL	--	--	0.00039	DTSC-SL	--	--	
Hexachlorophene	70-30-4	--	--	19	USEPA RSL	--	--	160	DTSC-SL	
Hexamethylphosphoramide	680-31-9	--	--	25	USEPA RSL	--	--	210	DTSC-SL	
Hexanedioic Acid	124-04-9	--	--	130000	USEPA RSL	--	--	1100000	DTSC-SL	
Hexazinone	51235-04-2	--	--	2100	USEPA RSL	--	--	17000	DTSC-SL	
Hexythiazox	78587-05-0	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL	
HMX	2691-41-0	--	--	3900	USEPA RSL	--	--	54000	DTSC-SL	
Hydramethylnon	67485-29-4	--	--	1100	USEPA RSL	--	--	9000	DTSC-SL	
Hydrogen Chloride	7647-01-0	--	--	13000000	DTSC-SL	--	--	54000000	DTSC-SL	
Hydroquinone	123-31-9	9	USEPA RSL	2500	USEPA RSL	25	DTSC-SL	21000	DTSC-SL	
Imazalil	35554-44-0	8.9	USEPA RSL	160	USEPA RSL	24	DTSC-SL	1300	DTSC-SL	
Imazaquin	81335-37-7	--	--	16000	USEPA RSL	--	--	130000	DTSC-SL	
Imazethapyr	81335-77-5	--	--	160000	USEPA RSL	--	--	1300000	DTSC-SL	
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	USEPA RSL	--	--	13	DTSC-SL	--	--	
Iprodione	36734-19-7	--	--	2500	USEPA RSL	--	--	21000	DTSC-SL	
Isobutanol	78-83-1	--	--	14000	DTSC-SL	--	--	100000	DTSC-SL	
Isophorone	78-59-1	570	USEPA RSL	13000	USEPA RSL	1600	DTSC-SL	110000	DTSC-SL	
Isopropalin	33820-53-0	--	--	1100	DTSC-SL	--	--	15000	DTSC-SL	

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Isopropyl methyl phosphonic acid	1832-54-8	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Isoxaben	82558-50-7	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL	
Kepone	143-50-0	0.054	USEPA RSL	19	USEPA RSL	0.15	DTSC-SL	160	DTSC-SL	
Lactofen	77501-63-4	--	--	510	USEPA RSL	--	--	4200	DTSC-SL	
Lactonitrile	78-97-7	--	--	13	USEPA RSL	--	--	110	DTSC-SL	
Lead and compounds	7439-92-1	--	--	80	DTSC-SL	--	--	500	DTSC-SL	
Lead acetate	301-04-2	1.9	DTSC-SL	--	--	5.3	DTSC-SL	--	--	
Lead subacetate	1335-32-6	14	DTSC-SL	--	--	39	DTSC-SL	--	--	
Lewisite	541-25-3	--	--	0.23	DTSC-SL	--	--	1.6	DTSC-SL	
Linuron	330-55-2	--	--	490	USEPA RSL	--	--	4100	DTSC-SL	
Malathion	121-75-5	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Maleic anhydride	108-31-6	--	--	6300	USEPA RSL	--	--	52000	DTSC-SL	
Maleic hydrazide	123-33-1	--	--	32000	USEPA RSL	--	--	260000	DTSC-SL	
Malononitrile	109-77-3	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL	
m-Aminophenol	591-27-5	--	--	5100	USEPA RSL	--	--	42000	DTSC-SL	
Mancozeb	8018-01-7	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL	
Maneb	12427-38-2	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
MCPA	94-74-6	--	--	32	USEPA RSL	--	--	260	DTSC-SL	
Mecoprop	93-65-2	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Mephosfolan	950-10-7	--	--	5.7	USEPA RSL	--	--	48	DTSC-SL	
Mepiquat	24307-26-4	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL	
Mercuric Chloride	7487-94-7	--	--	13	DTSC-SL	--	--	190	DTSC-SL	
Mercury	7439-97-6	--	--	1	DTSC-SL	--	--	4.4	DTSC-SL	
Merphos	150-50-5	--	--	2.3	USEPA RSL	--	--	34	DTSC-SL	
Merphos oxide	78-48-8	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL	
Metalaxyll	57837-19-1	--	--	3800	USEPA RSL	--	--	32000	DTSC-SL	
Methamidophos	10265-92-6	--	--	3.2	USEPA RSL	--	--	26	DTSC-SL	
Methidathion	950-37-8	--	--	95	USEPA RSL	--	--	790	DTSC-SL	
Methomyl	16752-77-5	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL	
Methoxychlor	72-43-5	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
Methyl acetate	79-20-9	--	--	24000	DTSC-SL	--	--	130000	DTSC-SL	

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Methyl Parathion	298-00-0	--	--	16	USEPA RSL	--	--	130	DTSC-SL
Methyl styrene (alpha)	98-83-9	--	--	2200	DTSC-SL	--	--	13000	DTSC-SL
Methylarsonic acid	124-58-3	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
Methylcyclohexane	108-87-2	--	--	5500	DTSC-SL	--	--	23000	DTSC-SL
Methylene Chloride	75-09-2	2.2	DTSC-SL	310	DTSC-SL	26	DTSC-SL	2500	DTSC-SL
Methylene diphenyl diisocyanate	101-68-8	--	--	110000	DTSC-SL	--	--	480000	DTSC-SL
Methylmethanesulfonate	66-27-3	5.5	USEPA RSL	--	--	15	DTSC-SL	--	--
Methylphenols	1319-77-3	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
Methylphosphonic acid	993-13-5	--	--	3800	USEPA RSL	--	--	32000	DTSC-SL
Metolachlor	51218-45-2	--	--	9500	USEPA RSL	--	--	79000	DTSC-SL
Metribuzin	21087-64-9	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL
Metsulfuron-methyl	74223-64-6	--	--	16000	USEPA RSL	--	--	130000	DTSC-SL
Mineral oils (I)	8012-95-1	--	--	16000	DTSC-SL	--	--	71000	DTSC-SL
Mirex	2385-85-5	0.036	USEPA RSL	15	DTSC-SL	0.17	USEPA RSL	220	DTSC-SL
Molinate	2212-67-1	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
Monomethylaniline	100-61-8	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
Myclobutanil	88671-89-0	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL
N,N-Dimethylaniline	121-69-7	8.6	DTSC-SL	98	DTSC-SL	39	DTSC-SL	750	DTSC-SL
Naled	300-76-5	--	--	120	DTSC-SL	--	--	1100	DTSC-SL
Naphthalene	91-20-3	2	DTSC-SL	130	USEPA RSL	6.5	DTSC-SL	570	DTSC-SL
Napropamide	15299-99-7	--	--	7600	USEPA RSL	--	--	64000	DTSC-SL
n-Butyl alcohol	71-36-3	--	--	4800	DTSC-SL	--	--	36000	DTSC-SL
n-Butylbenzene	104-51-8	--	--	2400	DTSC-SL	--	--	18000	DTSC-SL
Nickel	7440-02-0	15000	USEPA RSL	820	DTSC-SL	64000	USEPA RSL	11000	DTSC-SL
Nickel Acetate	373-02-4	15000	USEPA RSL	670	USEPA RSL	64000	USEPA RSL	5400	DTSC-SL
Nickel Carbonate	3333-67-3	15000	USEPA RSL	670	USEPA RSL	64000	USEPA RSL	5400	DTSC-SL
Nickel refinery dust	E715532	15000	DTSC-SL	820	USEPA RSL	64000	DTSC-SL	11000	USEPA RSL
Nickelocene	1271-28-9	0.6	DTSC-SL	670	USEPA RSL	1.6	DTSC-SL	5400	DTSC-SL
Nitrocellulose	9004-70-0	--	--	1900000000	USEPA RSL	--	--	16000000000	DTSC-SL
Nitrofurantoin	67-20-9	--	--	4400	USEPA RSL	--	--	37000	DTSC-SL
Nitrofurazone	59-87-0	0.42	USEPA RSL	--	--	1.1	DTSC-SL	--	--

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Nitroglycerin	55-63-0	32	USEPA RSL	6.3	USEPA RSL	87	DTSC-SL	53	DTSC-SL
Nitroguanidine	556-88-7	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
N-Methyl-N'-nitro-N-nitrosoguanidine	70-25-7	0.065	USEPA RSL	--	--	0.18	DTSC-SL	--	--
N-Nitrosodiethanolamine	1116-54-7	0.19	USEPA RSL	--	--	0.53	DTSC-SL	--	--
N-Nitrosodiethylamine	55-18-5	0.00081	USEPA RSL	--	--	0.0099	DTSC-SL	--	--
N-Nitroso-di-n-butylamine	924-16-3	0.049	DTSC-SL	--	--	0.23	DTSC-SL	--	--
N-Nitrosodiphenylamine	86-30-6	110	USEPA RSL	--	--	300	DTSC-SL	--	--
N-Nitrosodipropylamine	621-64-7	0.078	USEPA RSL	--	--	0.21	DTSC-SL	--	--
N-Nitrosomorpholine	59-89-2	0.081	USEPA RSL	--	--	0.22	DTSC-SL	--	--
N-Nitroso-N-ethylurea	759-73-9	0.0045	USEPA RSL	--	--	0.055	DTSC-SL	--	--
N-Nitroso-N-methylurea	684-93-5	0.001	USEPA RSL	--	--	0.012	DTSC-SL	--	--
N-Nitrosopiperidine	100-75-4	0.058	USEPA RSL	--	--	0.16	DTSC-SL	--	--
N-Nitrosopyrrolidine	930-55-2	0.26	USEPA RSL	--	--	0.71	DTSC-SL	--	--
Norflurazon	27314-13-2	--	--	950	USEPA RSL	--	--	7900	DTSC-SL
o-Aminophenol	95-55-6	--	--	250	USEPA RSL	--	--	2100	DTSC-SL
Octabromodiphenyl Ethers	32536-52-0	--	--	190	USEPA RSL	--	--	1600	DTSC-SL
Octamethylpyrophosphoramido	152-16-9	--	--	130	USEPA RSL	--	--	1100	DTSC-SL
Oryzalin	19044-88-3	70	USEPA RSL	8800	USEPA RSL	190	DTSC-SL	74000	DTSC-SL
o-Toluidine	95-53-4	3	DTSC-SL	--	--	8.2	DTSC-SL	--	--
Oxadiazon	19666-30-9	--	--	320	USEPA RSL	--	--	2600	DTSC-SL
Oxamyl	23135-22-0	--	--	1600	USEPA RSL	--	--	13000	DTSC-SL
Oxyfluorfen	42874-03-3	7.4	USEPA RSL	1900	USEPA RSL	20	DTSC-SL	16000	DTSC-SL
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.027	DTSC-SL	4	DTSC-SL	0.13	DTSC-SL	43	DTSC-SL
Paclobutrazol	76738-62-0	--	--	820	USEPA RSL	--	--	6900	DTSC-SL
p-Aminophenol	123-30-8	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Paraquat dichloride	1910-42-5	--	--	280	USEPA RSL	--	--	2400	DTSC-SL
Parathion	56-38-2	--	--	380	USEPA RSL	--	--	3200	DTSC-SL
PCB-077	32598-13-3	0.038	USEPA RSL	0.41	USEPA RSL	0.094	DTSC-SL	3	DTSC-SL
PCB-081	70362-50-4	0.012	USEPA RSL	0.13	USEPA RSL	0.03	DTSC-SL	1	DTSC-SL
PCB-105	32598-14-4	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL
PCB-114	74472-37-0	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL

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PCB-118	31508-00-6	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL
PCB-123	65510-44-3	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL
PCB-126	57465-28-8	0.000036	USEPA RSL	0.00041	USEPA RSL	0.00009	DTSC-SL	0.003	DTSC-SL
PCB-156	38380-08-4	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL
PCB-157	69782-90-7	0.12	USEPA RSL	1.3	USEPA RSL	0.3	DTSC-SL	10	DTSC-SL
PCB-167	52663-72-6	0.12	USEPA RSL	1.3	USEPA RSL	0.31	DTSC-SL	10	DTSC-SL
PCB-169	32774-16-6	0.00012	USEPA RSL	0.0013	USEPA RSL	0.00031	DTSC-SL	0.01	DTSC-SL
PCB-189	39635-31-9	0.13	USEPA RSL	1.3	USEPA RSL	0.31	DTSC-SL	10	DTSC-SL
PCBs (Total)	1336-36-3	0.23	USEPA RSL	--	--	0.58	DTSC-SL	--	--
p-Chlorobenzene sulfonic acid	98-66-8	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL
p-Chlorobenzoic acid	74-11-3	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
p-Chloro-o-toluidine	95-69-2	2	DTSC-SL	190	USEPA RSL	5.5	DTSC-SL	1600	DTSC-SL
Pebulate	1114-71-2	--	--	2800	DTSC-SL	--	--	24000	DTSC-SL
Pendimethalin	40487-42-1	--	--	19000	USEPA RSL	--	--	160000	DTSC-SL
Pentabromo-6-chloro cyclohexane	87-84-3	27	USEPA RSL	1300	USEPA RSL	74	DTSC-SL	11000	DTSC-SL
Pentabromodiphenyl Ethers	32534-81-9	--	--	150	DTSC-SL	--	--	2100	DTSC-SL
Pentachlorobenzene	608-93-5	--	--	51	DTSC-SL	--	--	510	DTSC-SL
Pentachloroethane	76-01-7	1	DTSC-SL	--	--	4.6	DTSC-SL	--	--
Pentachloronitrobenzene	82-68-8	2.3	DTSC-SL	220	DTSC-SL	11	DTSC-SL	3000	DTSC-SL
Pentachlorophenol	87-86-5	1	USEPA RSL	250	USEPA RSL	2	DTSC-SL	1500	DTSC-SL
Pentaerythritol tetranitrate (PETN)	78-11-5	140	USEPA RSL	130	USEPA RSL	370	DTSC-SL	1100	DTSC-SL
Perfluorobutane sulfonic acid	375-73-5	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Perfluorobutanesulfonate	45187-15-3	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Permethrin	52645-53-1	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL
Phenacetin	62-44-2	250	USEPA RSL	--	--	670	DTSC-SL	--	--
Phenmedipham	13684-63-4	--	--	15000	USEPA RSL	--	--	130000	DTSC-SL
Phenol	108-95-2	--	--	19000	USEPA RSL	--	--	160000	DTSC-SL
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	--	--	250	USEPA RSL	--	--	2100	DTSC-SL
Phenothiazine	92-84-2	--	--	32	USEPA RSL	--	--	260	DTSC-SL
Phenyl Isothiocyanate	103-72-0	--	--	4.3	DTSC-SL	--	--	22	DTSC-SL

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Phenylmercaptan	108-98-5	--	--	40	DTSC-SL	--	--	260	DTSC-SL	
Phenylmercuric acetate	62-38-4	--	--	5.1	USEPA RSL	--	--	42	DTSC-SL	
Phorate	298-02-2	--	--	13	USEPA RSL	--	--	110	DTSC-SL	
Phosmet	732-11-6	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Phosphorus, White	7723-14-0	--	--	0.42	DTSC-SL	--	--	2.2	DTSC-SL	
Phthalic anhydride	85-44-9	--	--	130000	USEPA RSL	--	--	1000000	DTSC-SL	
Picloram	1918-02-1	--	--	4400	USEPA RSL	--	--	37000	DTSC-SL	
Picramic Acid	96-91-3	--	--	6.3	USEPA RSL	--	--	53	DTSC-SL	
Picric Acid	88-89-1	--	--	57	USEPA RSL	--	--	480	DTSC-SL	
Pirimiphos-methyl	29232-93-7	--	--	4.4	USEPA RSL	--	--	37	DTSC-SL	
Polybrominated Biphenyls (BP-6)	59536-65-1	0.018	USEPA RSL	0.44	USEPA RSL	0.049	DTSC-SL	3.7	DTSC-SL	
Polymeric methylenediphenyl diisocyanate	9016-87-9	--	--	110000	DTSC-SL	--	--	480000	DTSC-SL	
Potassium Perfluorobutane Sulfonate	29420-49-3	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
p-Phthalic acid	100-21-0	--	--	63000	USEPA RSL	--	--	530000	DTSC-SL	
Prochloraz	67747-09-5	3.6	USEPA RSL	570	USEPA RSL	9.9	DTSC-SL	4800	DTSC-SL	
Profluralin	26399-36-0	--	--	450	DTSC-SL	--	--	6000	DTSC-SL	
Prometon	1610-18-0	--	--	950	USEPA RSL	--	--	7900	DTSC-SL	
Prometryn	7287-19-6	--	--	2500	USEPA RSL	--	--	21000	DTSC-SL	
Propachlor	1918-16-7	--	--	820	USEPA RSL	--	--	6900	DTSC-SL	
Propanil	709-98-8	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
Propargite	2312-35-8	2.8	USEPA RSL	2500	USEPA RSL	7.7	DTSC-SL	21000	DTSC-SL	
Propargyl alcohol	107-19-7	--	--	120	DTSC-SL	--	--	1100	DTSC-SL	
Propazine	139-40-2	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Propham	122-42-9	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Propiconazole	60207-90-1	--	--	6300	USEPA RSL	--	--	53000	DTSC-SL	
Propylene glycol	57-55-6	--	--	1300000	USEPA RSL	--	--	11000000	DTSC-SL	
Propyzamide	23950-58-5	--	--	4700	USEPA RSL	--	--	40000	DTSC-SL	
p-Toluic Acid	99-94-5	--	--	320	USEPA RSL	--	--	2600	DTSC-SL	
p-Toluidine	106-49-0	18	USEPA RSL	250	USEPA RSL	49	DTSC-SL	2100	DTSC-SL	

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/Industrial Soil, Cancer Endpoint,	Reference for Screening Level for Commercial/Industrial Soil (mg/kg), Noncancer Endpoint	Screening Level for Commercial/Industrial Soil, Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
Pyrene	129-00-0	--	--	1800	USEPA RSL	--	--	13000	DTSC-SL	
Pyridine	110-86-1	--	--	58	DTSC-SL	--	--	530	DTSC-SL	
Quinalphos	13593-03-8	--	--	32	USEPA RSL	--	--	260	DTSC-SL	
Quinoline	91-22-5	0.18	USEPA RSL	--	--	0.49	DTSC-SL	--	--	
Quizalofop-ethyl	76578-14-8	--	--	570	USEPA RSL	--	--	4800	DTSC-SL	
RDX	121-82-4	8.3	USEPA RSL	300	USEPA RSL	35	DTSC-SL	4000	DTSC-SL	
Resmethrin	10453-86-8	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL	
Ronnel	299-84-3	--	--	3800	DTSC-SL	--	--	51000	DTSC-SL	
Rotenone	83-79-4	--	--	250	USEPA RSL	--	--	2100	DTSC-SL	
Safrole	94-59-7	0.55	USEPA RSL	--	--	6.7	DTSC-SL	--	--	
sec-Butylbenzene	135-98-8	--	--	2200	DTSC-SL	--	--	12000	DTSC-SL	
Sethoxydim	74051-80-2	--	--	8800	USEPA RSL	--	--	74000	DTSC-SL	
S-Ethyl dipropylthiocarbamate	759-94-4	--	--	3400	DTSC-SL	--	--	37000	DTSC-SL	
Silvex	93-72-1	--	--	510	USEPA RSL	--	--	4200	DTSC-SL	
Simazine	122-34-9	4.5	USEPA RSL	320	USEPA RSL	12	DTSC-SL	2600	DTSC-SL	
Sodium diethyldithiocarbamate	148-18-5	2	USEPA RSL	1900	USEPA RSL	5.5	DTSC-SL	16000	DTSC-SL	
Sodium fluoroacetate	62-74-8	--	--	1.3	USEPA RSL	--	--	11	DTSC-SL	
Stirofos	961-11-5	23	USEPA RSL	1900	USEPA RSL	62	DTSC-SL	16000	DTSC-SL	
Strychnine	57-24-9	--	--	19	USEPA RSL	--	--	160	DTSC-SL	
Styrene	100-42-5	--	--	5600	DTSC-SL	--	--	32000	DTSC-SL	
Styrene-Acrylonitrile (SAN) Trimer (THNA isomer)	57964-39-3	--	--	190	DTSC-SL	--	--	1600	DTSC-SL	
Styrene-Acrylonitrile (SAN) Trimer (THNP isomer)	57964-40-6	--	--	190	USEPA RSL	--	--	1600	DTSC-SL	
Sulfolane	126-33-0	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
Tebuthiuron	34014-18-1	--	--	4400	USEPA RSL	--	--	37000	DTSC-SL	
Temephos	3383-96-8	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL	
Terbacil	5902-51-2	--	--	820	USEPA RSL	--	--	6900	DTSC-SL	
Terbufos	13071-79-9	--	--	1.8	DTSC-SL	--	--	23	DTSC-SL	
Terbutryn	886-50-0	--	--	63	USEPA RSL	--	--	530	DTSC-SL	
tert-Butylbenzene	98-06-6	--	--	2200	DTSC-SL	--	--	12000	DTSC-SL	

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/ Industrial Soil, (mg/kg), Cancer Endpoint	Level for Commercial/ Industrial Soil, Cancer Endpoint, for Commercial/ Industrial Soil, (mg/kg), Noncancer Endpoint	Screening Level for Commercial/ Industrial Soil, (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/ Industrial Soil, Noncancer Endpoint
Tetrachloroethene	127-18-4	0.59	DTSC-SL	81	USEPA RSL	2.7	DTSC-SL	390	USEPA RSL
Tetraethyl Lead	78-00-2	--	--	0.00072	DTSC-SL	--	--	0.0033	DTSC-SL
Tetraethylthiopyrophosphate	3689-24-5	--	--	32	USEPA RSL	--	--	260	DTSC-SL
Tetrahydrofuran	109-99-9	--	--	18000	USEPA RSL	--	--	92000	DTSC-SL
Thifensulfuron-methyl	79277-27-3	--	--	2700	USEPA RSL	--	--	23000	DTSC-SL
Thiobencarb	28249-77-6	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
Thiocyanic acid (2-benzothiazolylthio)methyl ester	21564-17-0	--	--	1900	USEPA RSL	--	--	16000	DTSC-SL
Thiodiglycol	111-48-8	--	--	5400	USEPA RSL	--	--	75000	DTSC-SL
Thiofanox	39196-18-4	--	--	19	USEPA RSL	--	--	160	DTSC-SL
Thiophanate-methyl	23564-05-8	45	DTSC-SL	1700	USEPA RSL	120	DTSC-SL	14000	DTSC-SL
Thiram	137-26-8	--	--	950	USEPA RSL	--	--	7900	DTSC-SL
Toluene	108-88-3	--	--	1100	DTSC-SL	--	--	5300	DTSC-SL
Toluene-2,4-diisocyanate	584-84-9	16	DTSC-SL	6.4	USEPA RSL	76	DTSC-SL	27	USEPA RSL
Toluene-2,5-diamine	95-70-5	3	USEPA RSL	13	USEPA RSL	8.2	DTSC-SL	110	DTSC-SL
Toluene-2,6-diisocyanate	91-08-7	16	DTSC-SL	5.3	USEPA RSL	75	DTSC-SL	22	USEPA RSL
Toxaphene	8001-35-2	0.45	DTSC-SL	5.7	USEPA RSL	1.2	DTSC-SL	48	DTSC-SL
Toxaphene, Weathered	E1841606	--	--	1.9	USEPA RSL	--	--	16	DTSC-SL
TPH (C17-C32 aromatic high)	E1790676	--	--	2400	USEPA RSL	--	--	18000	DTSC-SL
TPH (C9-C16 aromatic medium)	E1790674	--	--	97	USEPA RSL	--	--	500	DTSC-SL
Tralomethrin	66841-25-6	--	--	470	USEPA RSL	--	--	4000	DTSC-SL
trans-1,2-Dichloroethene	156-60-5	--	--	130	DTSC-SL	--	--	600	DTSC-SL
trans-Crotonaldehyde	123-73-9	0.086	DTSC-SL	39	DTSC-SL	0.38	DTSC-SL	260	DTSC-SL
Triacetin	102-76-1	--	--	5100000	USEPA RSL	--	--	42000000	DTSC-SL
Triadimefon	43121-43-3	--	--	2100	USEPA RSL	--	--	18000	DTSC-SL
Triallate	2303-17-5	8.2	DTSC-SL	1900	DTSC-SL	38	DTSC-SL	25000	DTSC-SL
Triasulfuron	82097-50-5	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
Tribenuron-methyl	101200-48-0	--	--	510	USEPA RSL	--	--	4200	DTSC-SL
Tributyl phosphate	126-73-8	60	USEPA RSL	630	USEPA RSL	160	DTSC-SL	5300	DTSC-SL
Tributyltin	688-73-3	--	--	3.6	DTSC-SL	--	--	17	DTSC-SL
Tributyltin Compounds	E1790678	--	--	19	USEPA RSL	--	--	160	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Soil (mg/kg), Cancer Endpoint	Reference for Screening Level for Residential Soil, Cancer Endpoint,	Screening Level for Residential Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Residential Soil, Noncancer Endpoint	Screening Level for Commercial/Industrial Soil (mg/kg), Cancer Endpoint	Level for Commercial/Industrial Soil, Cancer Endpoint,	Screening Level for Commercial/Industrial Soil (mg/kg), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Soil, Noncancer Endpoint
Tributyltin oxide	56-35-9	--	--	19	USEPA RSL	--	--	160	DTSC-SL
Trichloroacetic acid	76-03-9	7.8	USEPA RSL	1300	USEPA RSL	21	DTSC-SL	11000	DTSC-SL
Trichlorofluoromethane	75-69-4	--	--	1200	DTSC-SL	--	--	5400	DTSC-SL
Tricresyl Phosphates	1330-78-5	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Tridiphane	58138-08-2	--	--	190	USEPA RSL	--	--	1600	DTSC-SL
Triethyleneglycol	112-27-6	--	--	130000	USEPA RSL	--	--	1100000	DTSC-SL
Trifluralin	1582-09-8	81	DTSC-SL	570	DTSC-SL	380	DTSC-SL	7800	DTSC-SL
Trimethyl phosphate	512-56-1	27	USEPA RSL	630	USEPA RSL	74	DTSC-SL	5300	DTSC-SL
Triphenylphosphine oxide	791-28-6	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Tris(1,3-dichloro-2-propyl)phosphate	13674-87-8	--	--	1300	USEPA RSL	--	--	11000	DTSC-SL
Tris(1-chloro-2-propyl)phosphate	13674-84-5	--	--	630	USEPA RSL	--	--	5300	DTSC-SL
Tris(2-chloroethyl)phosphate	115-96-8	27	USEPA RSL	440	USEPA RSL	74	DTSC-SL	3700	DTSC-SL
Tris(2-ethylhexyl)phosphate	78-42-2	170	USEPA RSL	6300	USEPA RSL	460	DTSC-SL	53000	DTSC-SL
Uranium	7440-61-1	--	--	16	DTSC-SL	--	--	230	DTSC-SL
Urethane	51-79-6	0.12	USEPA RSL	--	--	1.5	DTSC-SL	--	--
Vernam	1929-77-7	--	--	68	DTSC-SL	--	--	760	DTSC-SL
Vinclozolin	50471-44-8	--	--	76	USEPA RSL	--	--	640	DTSC-SL
Vinyl chloride	75-01-4	0.0082	DTSC-SL	70	USEPA RSL	0.15	DTSC-SL	370	USEPA RSL
Warfarin	81-81-2	--	--	19	USEPA RSL	--	--	160	DTSC-SL
Zineb	12122-67-7	--	--	3200	USEPA RSL	--	--	26000	DTSC-SL

Symbols, Abbreviations, and Acronyms:

-- = no value

DTSC = California Department of Toxic Substances Control

mg/kg = milligrams per kilogram

RSL = Regional Screening Level

SL = screening level

USEPA = U.S. Environmental Protection Agency

**Table 2: HHRA Note 3 June 2020, DTSC-recommended Screening Levels for Tap Water Analytes**

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint
1,1,1,2-Tetrachloroethane	630-20-6	0.57	USEPA RSL	160	DTSC-SL
1,1,1-Trichloroethane	71-55-6	--	--	2000	DTSC-SL
1,1,2,2-Tetrachloroethane	79-34-5	0.076	USEPA RSL	110	DTSC-SL
1,1,2-Trichloropropane	598-77-6	--	--	28	DTSC-SL
1,1-Dichloroethane	75-34-3	2.8	USEPA RSL	1200	DTSC-SL
1,1-Dichloroethene	75-35-4	--	--	130	DTSC-SL
1,2,3-Trichlorobenzene	87-61-6	--	--	3.4	DTSC-SL
1,2,3-Trichloropropane	96-18-4	0.0002	DTSC-SL	0.62	USEPA RSL
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	1	DTSC-SL
1,2,4-Tribromobenzene	615-54-3	--	--	22	DTSC-SL
1,2,4-Trichlorobenzene	120-82-1	0.46	DTSC-SL	4	USEPA RSL
1,2-Dibromo-3-chloropropane	96-12-8	0.0003	DTSC-SL	0.37	USEPA RSL
1,3-Dibromobenzene	108-36-1	--	--	2	DTSC-SL
1,3-Dichloropropane	142-28-9	--	--	110	DTSC-SL
1,4-Dibromobenzene	106-37-6	--	--	51	DTSC-SL
1,4-Dithiane	505-29-3	--	--	59	DTSC-SL
1-Bromo-3-fluorobenzene	1073-06-9	--	--	1.7	DTSC-SL
1-Bromo-4-fluorobenzene	460-00-4	--	--	1.6	DTSC-SL
1-Chlorobutane	109-69-3	--	--	220	DTSC-SL
1-Methylnaphthalene	90-12-0	0.46	DTSC-SL	300	DTSC-SL
2,4,4-Trimethylpentene	25167-70-8	--	--	36	DTSC-SL
2,4,6-Trichlorophenol	88-06-2	0.65	DTSC-SL	12	USEPA RSL
2,4/2,6-Dinitrotoluenes	E1615210	0.11	USEPA RSL	17	DTSC-SL
2-Chloroethanol	107-07-3	--	--	120	DTSC-SL
2-Chloronaphthalene	91-58-7	--	--	350	DTSC-SL
2-Chlorophenol	95-57-8	--	--	29	DTSC-SL
2-Chlorotoluene	95-49-8	--	--	98	DTSC-SL
2-Methylnaphthalene	91-57-6	--	--	17	DTSC-SL
2-Nitrotoluene	88-72-2	0.077	DTSC-SL	5.1	DTSC-SL
3,3'-Dichlorobenzidine	91-94-1	0.047	DTSC-SL	--	--
4,4'-DDE	72-55-9	0.046	USEPA RSL	1.8	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.011	DTSC-SL	26	USEPA RSL
4-Chlorotoluene	106-43-4	--	--	100	DTSC-SL
Acenaphthene	83-32-9	--	--	260	DTSC-SL
Acetaldehyde	75-07-0	2.1	DTSC-SL	19	USEPA RSL
Acetophenone	98-86-2	--	--	580	DTSC-SL
Aldrin	309-00-2	0.00092	USEPA RSL	0.18	DTSC-SL
Anthracene	120-12-7	--	--	1000	DTSC-SL
Aroclor 1016	12674-11-2	0.22	USEPA RSL	0.41	DTSC-SL
Aroclor 1254	11097-69-1	0.0079	USEPA RSL	0.12	DTSC-SL
Aroclor 5460	11126-42-4	--	--	3.5	DTSC-SL
Arsenic	7440-38-2	0.0082	DTSC-SL	0.07	DTSC-SL
Benfluralin	1861-40-1	--	--	17	DTSC-SL
Benzaldehyde	100-52-7	4.3	DTSC-SL	580	DTSC-SL
Benzene	71-43-2	0.15	DTSC-SL	5.7	DTSC-SL
Benzidine	92-87-5	0.000049	DTSC-SL	59	USEPA RSL
Benzo[a]anthracene	56-55-3	0.017	DTSC-SL	--	--
Benzotrichloride	98-07-7	0.0011	DTSC-SL	--	--
Beryllium	7440-41-7	--	--	4	DTSC-SL
Beryllium Sulfate	13510-49-1	--	--	4	DTSC-SL
Biphenyl	92-52-4	1.6	DTSC-SL	0.83	USEPA RSL
bis(2-Chloroethyl) Ether	111-44-4	0.0063	DTSC-SL	--	--
bis-Chloroisopropyl Ether	108-60-1	--	--	230	DTSC-SL
Bromodichloromethane	75-27-4	0.13	USEPA RSL	120	DTSC-SL
Bromoform	75-25-2	3.3	USEPA RSL	120	DTSC-SL
Bromophos	2104-96-3	--	--	19	DTSC-SL
Bromoxynil octanoate	1689-99-2	0.24	USEPA RSL	56	DTSC-SL
Butylate	2008-41-5	--	--	220	DTSC-SL
Cadmium (water)	7440-43-9 (water)			1.8	USEPA-RSL
Carbon tetrachloride	56-23-5	0.45	USEPA RSL	36	DTSC-SL
Carbonyl sulfide	463-58-1	--	--	21	DTSC-SL
Chloral hydrate	302-17-0	--	--	590	DTSC-SL
Chloroacetaldehyde	107-20-0	0.064	DTSC-SL	--	--
Chlorodibromomethane	124-48-1	0.2	DTSC-SL	120	DTSC-SL
Chlorothalonil	1897-45-6	4	DTSC-SL	260	USEPA RSL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water (µg/L), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water (µg/L), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint
cis-1,2-Dichloroethene	156-59-2	--	--	12	DTSC-SL
Cyanogen	460-19-5	--	--	5.9	DTSC-SL
Cyanogen bromide	506-68-3	--	--	530	DTSC-SL
Cyanogen chloride	506-77-4	--	--	290	DTSC-SL
Cyclohexylamine	108-91-8	--	--	1200	DTSC-SL
Dibenz[a,h]anthracene	53-70-3	0.0061	DTSC-SL	--	--
Dibenzofuran	132-64-9	--	--	4	DTSC-SL
Dibenzothiophene	132-65-0	--	--	37	DTSC-SL
Dieldrin	60-57-1	0.00066	USEPA RSL	0.18	DTSC-SL
Diethylformamide	617-84-5	--	--	5.9	DTSC-SL
diisopropyl Methylphosphonate	1445-75-6	--	--	470	DTSC-SL
Dimethyl terephthalate	120-61-6	--	--	580	DTSC-SL
Endosulfan	115-29-7	--	--	33	DTSC-SL
Epichlorohydrin	106-89-8	0.19	DTSC-SL	2	USEPA RSL
Ethyl Ether	60-29-7	--	--	1200	DTSC-SL
Ethylene diamine	107-15-3	--	--	530	DTSC-SL
Ethylene dibromide	106-93-4	0.0075	USEPA RSL	1.7	DTSC-SL
Ethylene thiourea	96-45-7	0.71	DTSC-SL	1.6	USEPA RSL
Fluorene	86-73-7	--	--	160	DTSC-SL
Formaldehyde	50-00-0	0.39	USEPA RSL	19	DTSC-SL
Furan	110-00-9	--	--	5.8	DTSC-SL
Guanidine	113-00-8	--	--	59	DTSC-SL
HCH (mixed isomers)	608-73-1	0.011	DTSC-SL	--	--
Heptachlor	76-44-8	0.0014	USEPA RSL	0.98	DTSC-SL
Heptachlor Epoxide	1024-57-3	0.0014	USEPA RSL	0.058	DTSC-SL
Hexabromobenzene	87-82-1	--	--	12	DTSC-SL
Hexachlorobenzene	118-74-1	0.0088	DTSC-SL	4.7	DTSC-SL
Hexachlorobutadiene	87-68-3	0.14	USEPA RSL	3.6	DTSC-SL
Hydrogen Chloride	7647-01-0	--	--	19	DTSC-SL
Isobutanol	78-83-1	--	--	1800	DTSC-SL
Isopropalin	33820-53-0	--	--	30	DTSC-SL
Lead acetate	301-04-2	0.28	DTSC-SL	--	--
Lead subacetate	1335-32-6	2.1	DTSC-SL	--	--
Lewisite	541-25-3	--	--	0.029	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water (µg/L), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water (µg/L), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint
Mercuric Chloride	7487-94-7	--	--	3	DTSC-SL
Mercury	7439-97-6	--	--	0.063	DTSC-SL
Merphos	150-50-5	--	--	0.18	DTSC-SL
Methoxychlor	72-43-5	--	--	20	DTSC-SL
Methyl acetate	79-20-9	--	--	5900	DTSC-SL
Methyl styrene (alpha)	98-83-9	--	--	330	DTSC-SL
Methylcyclohexane	108-87-2	--	--	13000	DTSC-SL
Methylene Chloride	75-09-2	1.7	DTSC-SL	100	DTSC-SL
Mineral oils (I)	8012-95-1	--	--	18000	DTSC-SL
Mirex	2385-85-5	0.00088	USEPA RSL	1.2	DTSC-SL
N,N-Dimethylaniline	121-69-7	0.63	DTSC-SL	11	DTSC-SL
Naled	300-76-5	--	--	12	DTSC-SL
Naphthalene	91-20-3	0.12	DTSC-SL	6.1	USEPA RSL
n-Butyl alcohol	71-36-3	--	--	590	DTSC-SL
n-Butylbenzene	104-51-8	--	--	290	DTSC-SL
Nickel	7440-02-0	--	--	220	DTSC-SL
Nickelocene	1271-28-9	0.086	DTSC-SL	220	USEPA RSL
N-Nitroso-di-n-butylamine	924-16-3	0.0014	DTSC-SL	--	--
o-Toluidine	95-53-4	0.42	DTSC-SL	--	--
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.00076	DTSC-SL	0.23	DTSC-SL
p-Chloro-o-toluidine	95-69-2	0.26	DTSC-SL	54	USEPA RSL
Pebulate	1114-71-2	--	--	240	DTSC-SL
Pentabromodiphenyl Ethers	32534-81-9	--	--	12	DTSC-SL
Pentachlorobenzene	608-93-5	--	--	2.1	DTSC-SL
Pentachloroethane	76-01-7	0.18	DTSC-SL	--	--
Pentachloronitrobenzene	82-68-8	0.05	DTSC-SL	13	DTSC-SL
Phenyl Isothiocyanate	103-72-0	--	--	1	DTSC-SL
Phenylmercaptan	108-98-5	--	--	5.6	DTSC-SL
Phosphorus, White	7723-14-0	--	--	0.12	DTSC-SL
Profluralin	26399-36-0	--	--	17	DTSC-SL
Propargyl alcohol	107-19-7	--	--	12	DTSC-SL
Pyrene	129-00-0	--	--	81	DTSC-SL
Pyridine	110-86-1	--	--	5.9	DTSC-SL
Ronnel	299-84-3	--	--	210	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water ( $\mu\text{g}/\text{L}$ ), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint
sec-Butylbenzene	135-98-8	--	--	590	DTSC-SL
S-Ethyl dipropylthiocarbamate	759-94-4	--	--	270	DTSC-SL
Styrene	100-42-5	--	--	1100	DTSC-SL
Terbufos	13071-79-9	--	--	0.11	DTSC-SL
tert-Butylbenzene	98-06-6	--	--	380	DTSC-SL
Tetrachloroethene	127-18-4	0.084	DTSC-SL	41	USEPA RSL
Tetraethyl Lead	78-00-2	--	--	0.00051	DTSC-SL
Thallium acetate	563-68-8	--	--	0.059	DTSC-SL
Thallium carbonate	6533-73-9	--	--	0.12	DTSC-SL
Thiocyanic acid	463-56-9	--	--	1.2	DTSC-SL
Thiophanate-methyl	23564-05-8	6.4	DTSC-SL	530	USEPA RSL
Toluene	108-88-3	--	--	410	DTSC-SL
Toluene-2,4-diisocyanate	584-84-9	0.34	DTSC-SL	0.017	USEPA RSL
Toluene-2,6-diisocyanate	91-08-7	0.34	DTSC-SL	0.017	USEPA RSL
Toxaphene	8001-35-2	0.065	DTSC-SL	1.8	USEPA RSL
trans-1,2-Dichloroethene	156-60-5	--	--	110	DTSC-SL
trans-Crotonaldehyde	123-73-9	0.0091	DTSC-SL	5.9	DTSC-SL
Triallate	2303-17-5	0.19	DTSC-SL	110	DTSC-SL
Tributyltin	688-73-3	--	--	1.5	DTSC-SL
Trichlorofluoromethane	75-69-4	--	--	1700	DTSC-SL
Trifluralin	1582-09-8	1.4	DTSC-SL	25	DTSC-SL
Vernam	1929-77-7	--	--	4.8	DTSC-SL
Vinyl chloride	75-01-4	0.0098	DTSC-SL	45	USEPA RSL

Symbols, Abbreviations, and Acronyms:

-- = no value

 $\mu\text{g}/\text{L}$  = micrograms per liter

DTSC = California Department of Toxic Substances Control

RSL = Regional Screening Level

SL = screening level

USEPA = U.S. Environmental Protection Agency

**Table 3: HHRA Note 3, June 2020, DTSC-recommended Screening Levels for Ambient Air Analytes**

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Residential Air, Cancer Endpoint	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Residential Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Cancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint
1,1,1,2-Tetrachloroethane	630-20-6	0.38	USEPA RSL	130	DTSC-SL	1.7	USEPA RSL	530	DTSC-SL
1,1,1-Trichloroethane	71-55-6	--	--	1000	DTSC-SL	--	--	4400	DTSC-SL
1,1,2,2-Tetrachloroethane	79-34-5	0.048	USEPA RSL	83	DTSC-SL	0.21	USEPA RSL	350	DTSC-SL
1,1,2-Trichloropropane	598-77-6	--	--	21	DTSC-SL	--	--	88	DTSC-SL
1,1-Dichloroethane	75-34-3	1.8	USEPA RSL	830	DTSC-SL	7.7	USEPA RSL	3500	DTSC-SL
1,1-Dichloroethene	75-35-4	--	--	73	DTSC-SL	--	--	310	DTSC-SL
1,2,3-Trichlorobenzene	87-61-6	--	--	3.3	DTSC-SL	--	--	14	DTSC-SL
1,2,3-Trichloropropane	96-18-4	0.00014	DTSC-SL	0.31	USEPA RSL	0.0016	DTSC-SL	1.3	USEPA RSL
1,2,4,5-Tetrachlorobenzene	95-94-3	--	--	1.3	DTSC-SL	--	--	5.3	DTSC-SL
1,2,4-Tribromobenzene	615-54-3	--	--	21	DTSC-SL	--	--	88	DTSC-SL
1,2,4-Trichlorobenzene	120-82-1	0.38	DTSC-SL	2.1	USEPA RSL	1.7	DTSC-SL	8.8	USEPA RSL
1,3-Butadiene	106-99-0	0.017	DTSC-SL	2.1	USEPA RSL	0.072	DTSC-SL	8.8	USEPA RSL
1,3-Dibromobenzene	108-36-1	--	--	1.7	DTSC-SL	--	--	7	DTSC-SL
1,3-Dichloropropane	142-28-9	--	--	83	DTSC-SL	--	--	350	DTSC-SL
1,4-Dibromobenzene	106-37-6	--	--	42	DTSC-SL	--	--	180	DTSC-SL
1,4-Dithiane	505-29-3	--	--	42	DTSC-SL	--	--	180	DTSC-SL
1-Bromo-3-fluorobenzene	1073-06-9	--	--	1.3	DTSC-SL	--	--	5.3	DTSC-SL
1-Bromo-4-fluorobenzene	460-00-4	--	--	1.3	DTSC-SL	--	--	5.3	DTSC-SL
1-Chlorobutane	109-69-3	--	--	170	DTSC-SL	--	--	700	DTSC-SL
1-Methylnaphthalene	90-12-0	0.39	DTSC-SL	290	DTSC-SL	1.7	DTSC-SL	1200	DTSC-SL
2,4,4-Trimethylpentene	25167-70-8	--	--	42	DTSC-SL	--	--	180	DTSC-SL
2,4,6-Trichlorophenol	88-06-2	0.14	DTSC-SL	--	--	0.61	DTSC-SL	--	--
2-Chloroethanol	107-07-3	--	--	83	DTSC-SL	--	--	350	DTSC-SL
2-Chloronaphthalene	91-58-7	--	--	330	DTSC-SL	--	--	1400	DTSC-SL
2-Chlorophenol	95-57-8	--	--	21	DTSC-SL	--	--	88	DTSC-SL
2-Chlorotoluene	95-49-8	--	--	83	DTSC-SL	--	--	350	DTSC-SL
2-Methylnaphthalene	91-57-6	--	--	17	DTSC-SL	--	--	70	DTSC-SL
2-Naphthylamine	91-59-8	0.0062	DTSC-SL	--	--	0.027	DTSC-SL	--	--

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Residential Air, Cancer Endpoint	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Residential Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Cancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint
2-Nitrotoluene	88-72-2	0.051	DTSC-SL	3.8	DTSC-SL	0.22	DTSC-SL	16	DTSC-SL
4,4'-DDE	72-55-9	0.029	USEPA RSL	1.3	DTSC-SL	0.13	USEPA RSL	5.3	DTSC-SL
4-Chlorotoluene	106-43-4	--	--	83	DTSC-SL	--	--	350	DTSC-SL
Acenaphthene	83-32-9	--	--	250	DTSC-SL	--	--	1100	DTSC-SL
Acetaldehyde	75-07-0	1	DTSC-SL	9.4	USEPA RSL	4.5	DTSC-SL	39	USEPA RSL
Acetophenone	98-86-2	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
Aldrin	309-00-2	0.00057	USEPA RSL	0.13	DTSC-SL	0.0025	USEPA RSL	0.53	DTSC-SL
Ammonia	7664-41-7	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Anthracene	120-12-7	--	--	1300	DTSC-SL	--	--	5300	DTSC-SL
Aroclor 1016	12674-11-2	0.14	USEPA RSL	0.29	DTSC-SL	0.61	USEPA RSL	1.2	DTSC-SL
Aroclor 1254	11097-69-1	0.0049	USEPA RSL	0.083	DTSC-SL	0.021	USEPA RSL	0.35	DTSC-SL
Aroclor 5460	11126-42-4	--	--	2.5	DTSC-SL	--	--	11	DTSC-SL
Arsine	7784-42-1	--	--	0.016	DTSC-SL	--	--	0.066	DTSC-SL
Benfluralin	1861-40-1	--	--	21	DTSC-SL	--	--	88	DTSC-SL
Benzaldehyde	100-52-7	2.8	DTSC-SL	420	DTSC-SL	12	DTSC-SL	1800	DTSC-SL
Benzene	71-43-2	0.097	DTSC-SL	3.1	DTSC-SL	0.42	DTSC-SL	13	DTSC-SL
Benzidine	92-87-5	0.0000072	DTSC-SL	--	--	0.000088	DTSC-SL	--	--
Benzo[a]anthracene	56-55-3	0.0092	DTSC-SL	--	--	0.11	DTSC-SL	--	--
Benzo[a]pyrene	50-32-8	0.00092	DTSC-SL	0.0021	USEPA RSL	0.011	DTSC-SL	0.0088	USEPA RSL
Benzo[b]fluoranthene	205-99-2	0.0092	DTSC-SL	--	--	0.11	DTSC-SL	--	--
Benzo[k]fluoranthene	207-08-9	0.0092	DTSC-SL	--	--	0.11	DTSC-SL	--	--
Benzotrichloride	98-07-7	0.00086	DTSC-SL	--	--	0.0038	DTSC-SL	--	--
Beryllium	7440-41-7	0.0012	USEPA RSL	0.0073	DTSC-SL	0.0051	USEPA RSL	0.031	DTSC-SL
Beryllium Sulfate	13510-49-1	0.0012	DTSC-SL	0.0073	DTSC-SL	0.0051	DTSC-SL	0.031	DTSC-SL
Biphenyl	92-52-4	1.4	DTSC-SL	0.42	USEPA RSL	6.1	DTSC-SL	1.8	USEPA RSL
bis(2-Chloroethyl) Ether	111-44-4	0.004	DTSC-SL	--	--	0.017	DTSC-SL	--	--
bis-Chloroisopropyl Ether	108-60-1	--	--	170	DTSC-SL	--	--	700	DTSC-SL
Bromodichloromethane	75-27-4	0.076	USEPA RSL	83	DTSC-SL	0.33	USEPA RSL	350	DTSC-SL
Bromoform	75-25-2	2.6	USEPA RSL	83	DTSC-SL	11	USEPA RSL	350	DTSC-SL
Bromophos	2104-96-3	--	--	21	DTSC-SL	--	--	88	DTSC-SL
Bromoxynil octanoate	1689-99-2	--	--	63	DTSC-SL	--	--	260	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Residential Air, Cancer Endpoint	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Residential Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint
Butylate	2008-41-5	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Cadmium (diet)	7440-43-9 (diet)	0.00067	DTSC-SL	0.01	USEPA RSL	0.0029	DTSC-SL	0.044	USEPA RSL
Cadmium (water)	7440-43-9 (water)	0.00067	DTSC-SL	0.01	USEPA RSL	0.0029	DTSC-SL	0.044	USEPA RSL
Carbon tetrachloride	56-23-5	0.47	USEPA RSL	42	DTSC-SL	2	USEPA RSL	180	DTSC-SL
Carbonyl sulfide	463-58-1	--	--	10	DTSC-SL	--	--	44	DTSC-SL
Chloral hydrate	302-17-0	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
Chloroacetaldehyde	107-20-0	0.042	DTSC-SL	--	--	0.18	DTSC-SL	--	--
Chlorodibromomethane	124-48-1	0.13	DTSC-SL	83	DTSC-SL	0.58	DTSC-SL	350	DTSC-SL
Chromium (VI)	18540-29-9	0.0000068	DTSC-SL	0.1	USEPA RSL	0.000082	DTSC-SL	0.44	USEPA RSL
Chrysene	218-01-9	0.092	DTSC-SL	--	--	1.1	DTSC-SL	--	--
cis-1,2-Dichloroethene	156-59-2	--	--	8.3	DTSC-SL	--	--	35	DTSC-SL
Cyanogen	460-19-5	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Cyanogen bromide	506-68-3	--	--	380	DTSC-SL	--	--	1600	DTSC-SL
Cyanogen chloride	506-77-4	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Cyclohexylamine	108-91-8	--	--	830	DTSC-SL	--	--	3500	DTSC-SL
Dibenz[a,h]anthracene	53-70-3	0.00084	DTSC-SL	--	--	0.01	DTSC-SL	--	--
Dibenzofuran	132-64-9	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Dibenzothiophene	132-65-0	--	--	42	DTSC-SL	--	--	180	DTSC-SL
Dieldrin	60-57-1	0.00061	USEPA RSL	0.21	DTSC-SL	0.0027	USEPA RSL	0.88	DTSC-SL
Diethylformamide	617-84-5	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
diisopropyl Methylphosphonate	1445-75-6	--	--	330	DTSC-SL	--	--	1400	DTSC-SL
Dimethyl terephthalate	120-61-6	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
Endosulfan	115-29-7	--	--	25	DTSC-SL	--	--	110	DTSC-SL
Epichlorohydrin	106-89-8	0.12	DTSC-SL	1	USEPA RSL	0.53	DTSC-SL	4.4	USEPA RSL
Ethyl Ether	60-29-7	--	--	830	DTSC-SL	--	--	3500	DTSC-SL
Ethylene diamine	107-15-3	--	--	380	DTSC-SL	--	--	1600	DTSC-SL
Ethylene dibromide	106-93-4	0.0047	USEPA RSL	0.83	DTSC-SL	0.02	USEPA RSL	3.5	DTSC-SL
Fluorene	86-73-7	--	--	170	DTSC-SL	--	--	700	DTSC-SL
Formaldehyde	50-00-0	0.22	USEPA RSL	9.4	DTSC-SL	0.94	USEPA RSL	39	DTSC-SL
Furan	110-00-9	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Guanidine	113-00-8	--	--	42	DTSC-SL	--	--	180	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Residential Air, Cancer Endpoint	Screening Level for Residential Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Residential Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Cancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Cancer Endpoint	Screening Level for Commercial/Industrial Air ( $\mu\text{g}/\text{m}^3$ ), Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint
HCH (mixed isomers)	608-73-1	0.0026	DTSC-SL	--	--	0.011	DTSC-SL	--	--
Heptachlor	76-44-8	0.0022	USEPA RSL	2.1	DTSC-SL	0.0094	USEPA RSL	8.8	DTSC-SL
Heptachlor Epoxide	1024-57-3	0.0011	USEPA RSL	0.054	DTSC-SL	0.0047	USEPA RSL	0.23	DTSC-SL
Hexabromobenzene	87-82-1	--	--	8.3	DTSC-SL	--	--	35	DTSC-SL
Hexachlorobenzene	118-74-1	0.0055	DTSC-SL	3.3	DTSC-SL	0.024	DTSC-SL	14	DTSC-SL
Hexachlorobutadiene	87-68-3	0.13	USEPA RSL	4.2	DTSC-SL	0.56	USEPA RSL	18	DTSC-SL
Hydrogen Chloride	7647-01-0	--	--	9.4	DTSC-SL	--	--	39	DTSC-SL
Indeno[1,2,3-cd]pyrene	193-39-5	0.0092	DTSC-SL	--	--	0.11	DTSC-SL	--	--
Isobutanol	78-83-1	--	--	1300	DTSC-SL	--	--	5300	DTSC-SL
Isopropalin	33820-53-0	--	--	63	DTSC-SL	--	--	260	DTSC-SL
Lead acetate	301-04-2	0.035	DTSC-SL	--	--	0.15	DTSC-SL	--	--
Lewisite	541-25-3	--	--	0.021	DTSC-SL	--	--	0.088	DTSC-SL
Mercuric Chloride	7487-94-7	--	--	0.031	DTSC-SL	--	--	0.13	DTSC-SL
Mercury	7439-97-6	--	--	0.031	DTSC-SL	--	--	0.13	DTSC-SL
Merphos	150-50-5	--	--	0.13	DTSC-SL	--	--	0.53	DTSC-SL
Methoxychlor	72-43-5	--	--	21	DTSC-SL	--	--	88	DTSC-SL
Methyl acetate	79-20-9	--	--	4200	DTSC-SL	--	--	18000	DTSC-SL
Methyl styrene (alpha)	98-83-9	--	--	290	DTSC-SL	--	--	1200	DTSC-SL
Methylcyclohexane	108-87-2	--	--	6300	DTSC-SL	--	--	26000	DTSC-SL
Methylene Chloride	75-09-2	1	DTSC-SL	420	DTSC-SL	12	DTSC-SL	1800	DTSC-SL
Methylene diphenyl diisocyanate	101-68-8	--	--	0.083	DTSC-SL	--	--	0.35	DTSC-SL
Mineral oils (I)	8012-95-1	--	--	13000	DTSC-SL	--	--	53000	DTSC-SL
Mirex	2385-85-5	0.00055	USEPA RSL	0.83	DTSC-SL	0.0024	USEPA RSL	3.5	DTSC-SL
N,N-Dimethylaniline	121-69-7	0.42	DTSC-SL	8.3	DTSC-SL	1.8	DTSC-SL	35	DTSC-SL
Naled	300-76-5	--	--	8.3	DTSC-SL	--	--	35	DTSC-SL
n-Butyl alcohol	71-36-3	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
n-Butylbenzene	104-51-8	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Nickel	7440-02-0	0.011	USEPA RSL	0.015	DTSC-SL	0.047	USEPA RSL	0.061	DTSC-SL
Nickel refinery dust	E715532	0.011	DTSC-SL	0.015	USEPA RSL	0.047	DTSC-SL	0.061	USEPA RSL
N-Nitroso-di-n-butylamine	924-16-3	0.00091	DTSC-SL	--	--	0.004	DTSC-SL	--	--
p,a,a,a-Tetrachlorotoluene	5216-25-1	0.0007	DTSC-SL	0.25	DTSC-SL	0.0031	DTSC-SL	1.1	DTSC-SL

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Residential Abstracts Service Cancer Endpoint	Reference for Screening Level for Residential Air, Cancer Endpoint	Screening Level for Residential Air, Noncancer Endpoint	Reference for Screening Level for Residential Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air, Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint	Screening Level for Commercial/Industrial Air, Noncancer Endpoint	Reference for Screening Level for Commercial/Industrial Air, Noncancer Endpoint
Pebulate	1114-71-2	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Pentabromodiphenyl Ethers	32534-81-9	--	--	8.3	DTSC-SL	--	--	35	DTSC-SL
Pentachlorobenzene	608-93-5	--	--	3.3	DTSC-SL	--	--	14	DTSC-SL
Pentachloroethane	76-01-7	0.12	DTSC-SL	--	--	0.55	DTSC-SL	--	--
Pentachloronitrobenzene	82-68-8	0.043	DTSC-SL	13	DTSC-SL	0.19	DTSC-SL	53	DTSC-SL
Phenyl Isothiocyanate	103-72-0	--	--	0.83	DTSC-SL	--	--	3.5	DTSC-SL
Phenylmercaptan	108-98-5	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Phosphorus, White	7723-14-0	--	--	0.083	DTSC-SL	--	--	0.35	DTSC-SL
Polymeric methylenediphenyl diisocyanate	9016-87-9	--	--	0.083	DTSC-SL	--	--	0.35	DTSC-SL
Profluralin	26399-36-0	--	--	25	DTSC-SL	--	--	110	DTSC-SL
Propargyl alcohol	107-19-7	--	--	8.3	DTSC-SL	--	--	35	DTSC-SL
Pyrene	129-00-0	--	--	130	DTSC-SL	--	--	530	DTSC-SL
Pyridine	110-86-1	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Ronnel	299-84-3	--	--	210	DTSC-SL	--	--	880	DTSC-SL
sec-Butylbenzene	135-98-8	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
S-Ethyl dipropylthiocarbamate	759-94-4	--	--	210	DTSC-SL	--	--	880	DTSC-SL
Styrene	100-42-5	--	--	940	DTSC-SL	--	--	3900	DTSC-SL
Terbufos	13071-79-9	--	--	0.1	DTSC-SL	--	--	0.44	DTSC-SL
tert-Butylbenzene	98-06-6	--	--	420	DTSC-SL	--	--	1800	DTSC-SL
Tetrachloroethylene	127-18-4	0.46	DTSC-SL	42	USEPA RSL	2	DTSC-SL	180	USEPA RSL
Tetraethyl Lead	78-00-2	--	--	0.00042	DTSC-SL	--	--	0.0018	DTSC-SL
Thiocyanic acid	463-56-9	--	--	0.83	DTSC-SL	--	--	3.5	DTSC-SL
Toluene	108-88-3	--	--	310	DTSC-SL	--	--	1300	DTSC-SL
trans-1,2-Dichloroethene	156-60-5	--	--	83	DTSC-SL	--	--	350	DTSC-SL
trans-Crotonaldehyde	123-73-9	0.0059	DTSC-SL	4.2	DTSC-SL	0.026	DTSC-SL	18	DTSC-SL
Triallate	2303-17-5	0.16	DTSC-SL	100	DTSC-SL	0.68	DTSC-SL	440	DTSC-SL
Tributyltin	688-73-3	--	--	1.3	DTSC-SL	--	--	5.3	DTSC-SL
Trichlorofluoromethane	75-69-4	--	--	1300	DTSC-SL	--	--	5300	DTSC-SL
Trifluralin	1582-09-8	1.5	DTSC-SL	31	DTSC-SL	6.4	DTSC-SL	130	DTSC-SL
Vernolate	1929-77-7	--	--	4.2	DTSC-SL	--	--	18	DTSC-SL
Vinyl chloride	75-01-4	0.0095	DTSC-SL	100	USEPA RSL	0.16	DTSC-SL	440	USEPA RSL

Symbols, Abbreviations, and Acronyms:

-- = no value.

$\mu\text{g}/\text{m}^3$  = microgram per cubic meter

DTSC = California Department of Toxic Substances Control

RSL = Regional Screening Level

SL = screening level

USEPA = U.S. Environmental Protection Agency

**Table 4: HHRA Note 3, June 2020, Screening Levels for Tap Water that Exceed State or Federal Maximum Contaminant Levels**

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water (µg/L), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water (µg/L), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint	California Maximum Contaminant Level (MCL) (µg/L)	USEPA Maximum Contaminant Level (MCL) (µg/L)
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
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

Analyte	Chemical Abstracts Service Registry Number	Screening Level for Tap Water (µg/L), Cancer Endpoint	Reference for Screening Level for Tap Water, Cancer Endpoint	Screening Level for Tap Water (µg/L), Noncancer Endpoint	Reference for Screening Level for Tap Water, Noncancer Endpoint	California Maximum Contaminant Level (MCL) (µg/L)	USEPA Maximum Contaminant Level (MCL) (µg/L)
Dichloroacetic acid	79-43-6	1.5	USEPA RSL	79	USEPA RSL	60	60
-Modified 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
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	--

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Vinyl chloride	75-01-4	0.0098	DTSC-SL	45	USEPA RSL	0.5	2

Symbols, Abbreviations, and Acronyms:

-- = 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