

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)

HUMAN AND ECOLOGICAL RISK OFFICE (HERO)



HERO is pleased to announce our eleventh “Quarterly Updates from HERO” – April 2019

1. ****NEW**** Human Health Risk Assessment Note 10 – Required Toxicity Criteria under sections (§) 69021(a), (b), and (c) of the Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals Rule and Specification of DTSC-Recommended Toxicity Criteria for Other Analytes Evaluated in Human Health Risk Assessments, or Screening-Level and Remediation-Goal Calculations. February 2019.

HHRA Note 10. On September 4, 2018 the *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* rule was approved by the State of California Office of Administrative Law and became effective immediately (<https://dtsc.ca.gov/regs/toxicity-criteria-for-human-health-risk-assessment/>). This HHRA Note discusses: 1) the specification of promulgated toxicity criteria under §69021(a) and (b); 2) the selection and approval of recommended toxicity criteria under §69021(c); and, 3) selection of TPH mixture toxicity criteria. Table 1 of this HHRA Note lists Rule-required toxicity criteria and pre-approved criteria that fall under §69021(c).

HHRA Note 10 can be found at: <https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/02/HHRA-Note-10-2019-02-25.pdf> and at <https://dtsc.ca.gov/human-health-risk-hero/>.

2. Updated Human Health Risk Assessment (HHRA) Note 3 – DTSC-Modified Screening Levels (DTSC-SLs), April 2019. The update to the HHRA Note is described below with a link to the entire HHRA Note:

HHRA Note 3. The April 2019 Update to HHRA Note 3 is compliant with the September 2018 *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* rule and incorporates changes adopted by the USEPA in their November 2018 release of the Regional Screening Levels (RSLs).

The updated HHRA Note 3 can be found at: <https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/04/HHRA-Note-3-2019-04.pdf> and at <https://dtsc.ca.gov/human-health-risk-hero/>.

3. Updated Human Health Risk Assessment (HHRA) Note 1 – Recommended DTSC Default Exposure Factors for Use in Risk Assessments at California Hazardous Waste Sites and Permitted Facilities, April 2019.

HHRA Note 1. The April 2019 Update to the HHRA Note 1 incorporates revised exposure factors for child skin surface area for dermal soil exposure and adult and child skin surface area for the

bath/showering scenario. These exposure parameters were updated to be consistent with the September 2018 *Toxicity Criteria for Human Health Risk Assessments, Screening Levels, and Remediation Goals* requirements, US EPA regional screening levels and current US EPA guidance.

The updated HHRA Note 1 can be found at: <https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/04/HHRA-Note-1-April-2019.pdf> .

4. Risk and Decision-Making Workshop – HERO will be teaching two Risk and Decision-Making Workshop courses at our Northern and Southern California Regional offices.

Cal Center Regional Office – June 26th and 27th, 8:30 a.m. to 4:30 p.m.

Cypress Regional Office – November 12th and 13th, 8:30 a.m. to 4:30 p.m.

This course has been approved by Toxics University and will allow participants, after supervisor's approval, to sign up through the Employee Training Center.

5. November 2018 USEPA Regional Screening Levels (RSLs).

The USEPA released the latest version of the RSLs. The RSL tables can be found at: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>. Below is a list of 'What's New in the November 2018' version of the RSLs:

- Chemicals with toxicity value changes due to [IRIS](#) updates are:
 - Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) has a new [IRIS](#) profile with an updated oral chronic reference dose and oral slope factor.
- There are no chemicals with new toxicity values due to [ATSDR](#) updates.
- Chemicals with new toxicity values due to [PPRTV](#) updates are:
 - Toxaphene, technical chronic and subchronic RfD assessments were added.
 - Toxaphene, weathered chronic and subchronic RfD appendix screening values were added.
 - Lutetium subchronic RfD was added.
 - Lanthanum chronic and subchronic RfD assessments were added.
 - Lanthanum chloride, anhydrous chronic and subchronic RfD assessments were added based on the RfD for Lanthanum, after applying molecular weight adjustment and appropriate stoichiometric calculations.
 - Lanthanum chloride heptahydrate chronic and subchronic RfD assessments were added based on the RfD for Lanthanum, after applying molecular weight adjustment and appropriate stoichiometric calculations.
 - Lanthanum nitrate hexahydrate chronic and subchronic RfD assessments were added based on the RfD for Lanthanum, after applying molecular weight adjustment and appropriate stoichiometric calculations.
 - Lanthanum acetate hydrate chronic and subchronic RfD assessments were added based on the RfD for Lanthanum, after applying molecular weight adjustment and appropriate stoichiometric calculations.
- Tert-butyl acetate oral and inhalation cancer values from [Cal EPA](#) were added.
- There are no chemicals with toxicity changes due to [OPP](#) updates.
- [User's Guide](#) section 2.3.5 was updated to include the dioxin congener CAS numbers in the toxicity equivalence factor table. Additionally, HCDD, 1,2,3,4,6,7,8,- is being renamed Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-, and the TEF of 0.01 will be applied replacing the

current toxicity sources. The following generic dioxin congeners are being removed from RSL [Calculator](#) pick list:

- 34465-46-8 ; Hexachlorodibenzo-p-dioxin
- 37871-00-4 ; HpCDD, 2,3,7,8-
- 36088-22-9 ; PeCDD, 2,3,7,8-
- 38998-75-3 ; HpCDF, 2,3,7,8-
- 55684-94-1 ; HxCDF, 2,3,7,8-
- [User's Guide](#) section 5.23 has been added describing the calculation of RSLs for refractory ceramic fibers. Soil screening levels have been removed for refractory ceramic fibers, and only air screening levels are calculated now.
- Phosgene is now activated to give RSLs in tapwater.
- The [FAQs](#) have been numbered sequentially.

6. DTSC-Modified Soil Gas and Groundwater Johnson and Ettinger (J&E) Models.

The DTSC-Modified soil gas and groundwater Johnson and Ettinger (J&E) models to predict theoretical indoor air concentrations from soil gas and groundwater data have been removed from HERO's website. The J&E models have been removed since they have not been updated and are not based on the most current J&E model spreadsheet tool from USEPA.

7. ITRC TPH Risk Evaluation at Petroleum-Contaminated Sites Guidance Document. November 2018.

Interstate Technology Regulatory Council (ITRC) Total Petroleum Hydrocarbons (TPH) Risk Evaluation at Petroleum-Contaminated Sites guidance document was released in November 2018. This guidance is aimed to assist with evaluating risk and establishing cleanup requirements at petroleum release sites. This guidance focuses on factors that are unique to TPH releases and builds on previously released and available guidance documents on TPH. This guidance document can be found at: <https://tphrisk-1.itrcweb.org/>.

8. ITRC Online Free Course – TPH Risk Evaluation at Petroleum-Contaminated Sites.

This online training course will cover the November 2018 released TPH guidance document.

Tuesday, June 4th – 10 a.m. to 12:15 p.m.

Thursday, September 12th – 10 a.m. to 12:15 p.m.

Tuesday, December 3rd – 10 a.m. to 12:15 p.m.

Registration: <https://clu-in.org/live/>

9. ITRC Online Free Course – Bioavailability of Contaminants in Soil: Considerations for Human Health Risk Assessment.

This online training course will include a discussion on the California Arsenic Bioaccessibility (CAB) Method discussed in the HERO HHRA Note 6.

Tuesday, May 14th – 10 a.m. to 12:15 p.m.

Thursday, October 10th – 10 a.m. to 12:15 p.m.

Registration: <https://clu-in.org/live/>

10. ITRC Online Free Course – Issues and Options in Human Health Risk Assessment – A Resource When Alternatives to Default Parameters and Scenarios are Proposed.

This online training will discuss topics associated with conducting and reviewing risk assessments for the cleanup of contaminated sites such as planning, data evaluation, toxicity, exposure assessment, and risk characterization.

Tuesday, September 17th – 10 a.m. to 12:15 p.m.

Registration: <https://clu-in.org/live/>

11. HERO News E-List. HERO has created a Listserv where subscribers will receive e-mail notifications regarding news on topics related to human and ecological risk assessment including HERO Quarterly Updates, new and updated HHRA Notes, new and updated EcoNotes, as well as other risk assessment guidance documents, presentations, and publications.

To subscribe: 1) Go to the “E-Lists” tab near the upper right border of any DTSC or HERO web page; 2) Please read the instructions on signing up for E-Lists; 3) Scroll down until you see “**HERO News**”, click “**Subscribe**”, then fill out the requested information.

The direct link to the DTSC E-List sign-up page can be found at: <https://dtsc.ca.gov/dtsc-e-lists/> .

Please contact your site toxicologist if you have any site-specific questions or the contact person indicated in each HERO HHRA Note document for more general questions.

Thank you,
HERO