

**Alaska Department of Environmental Conservation
Contaminated Sites Program
Instructions for Running Cleanup Levels Calculator**

November 15, 2016

1. Navigate to: <http://dec.alaska.gov/spar/csp/Calculators.htm> **NOTE:** This tool works best with Firefox or Chrome browsers.

2. **SELECT Cleanup Level Calculator**

3. **Select Scenario.** Several options are given.

Select Scenario

- Resident
- Indoor Worker
- Outdoor Worker
- Migration to Groundwater
- Groundwater

4. If you have chosen a scenario other than migration to groundwater or groundwater, **select the Precipitation Zone.** Otherwise, proceed to Step 5.

Select Precipitation Zone:

- Soil (Arctic Zone)
- Soil (< 40" Precipitation Zone)
- Soil (> 40" Precipitation Zone)

5. **Select CL Type-** Use defaults if you have no site-specific information; select site-specific if you do. If you select site-specific, make sure the Chemical Info Type is set to “database hierarchy defaults”

Select CL type

- Defaults
- Site Specific

Select Chemical Info Type:

Database hierarchy defaults ▼

6. **Select Risk Output:** Unless you have soil or water concentrations from a site and want to calculate cumulative risk at the same time as you’re calculating cleanup levels, select “no”.

Select Risk Output:

- No
 Yes

7. **Select RfD/RfC Type:** choose Chronic

Select RfD/RfC Type:

- Chronic
 Subchronic

8. **Select Individual Chemicals** by name or CAS Number, using the arrow buttons as shown. You can set the cursor inside the box, type the first few letters of the name or digits of the CAS number to select the compound you want. Holding down control (Ctrl) key allows for individual selection of multiple compounds with your mouse, while the shift key allows for corresponding rows to be selected. Use the arrow buttons to add or remove chemicals by name or by CAS number in the selection box. Checking the Or Select All box inserts all the chemicals in the selection box.

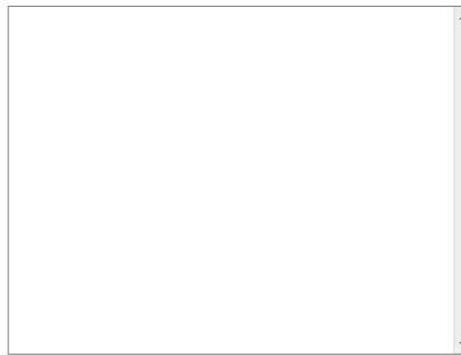
Select Individual Chemicals



A list box containing the following chemicals and their CAS numbers:

- Acenaphthene (83329)
- Acenaphthylene (208968)
- Acetone (67641)
- Aldrin (309002)
- Ammonium Perchlorate (7790989)
- Anthracene (120127)
- Antimony (metallic) (7440360)
- Arsenic, Inorganic (7440382)
- Barium (7440393)
- Benz[a]anthracene (56553)
- Benzaldehyde (100527)
- Benzene (71432)
- Benzo[a]pyrene (50328)
- Benzo[b]fluoranthene (205992)

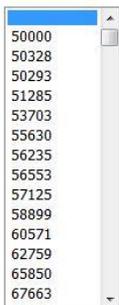
Selected



An empty rectangular box intended for the selected chemicals.



Or Select Individual CAS Numbers



A list box containing the following CAS numbers:

- 50000
- 50328
- 50293
- 51285
- 53703
- 55630
- 56235
- 56553
- 57125
- 58899
- 60571
- 62759
- 65850
- 67663

Or Select All

- ALL

9. **Number of Extra Chemicals:** If you select “test chemical” in step 8, you can enter data for a chemical not found in the list. Users can calculate cleanup levels for up to 13 non-listed chemicals at a time. In the dropdown box enter here the number of chemicals you wish to add to calculate cleanup levels. (See “**Inputting Information for Added Chemicals**,” below.)

Number of Extra Chemicals

Use this option to calculate cleanup levels for chemicals not in the database. You will be asked to fill out the form for toxicity values and chemical-specific parameters on the next page.

10. **Include Metadata:** Select “yes” if you want additional outputs giving details about the toxicity of the selected chemicals (e.g. target organs, critical effects, etc.).

Include Metadata

 Yes

11. **Hit Retrieve.** If you did not choose the option to enter site-specific data, you will see the default parameters used to calculate, and the cleanup levels for the compound, for the category selected. At the very top of the page, you will see two options for downloading the results: 1) Output to Spreadsheet and 2) Output to PDF.

You can also view the results on this page. Scroll down to the bottom of the page and use the horizontal scroll bar to view the results. The final cleanup level will be shown at the end (far right).

Default

Resident Risk-Based Contaminated Sites Cleanup Levels (CL) for Soil (>40" Precipitation Zone)

ca=Cancer, nc=Noncancer, ca* (Where nc SL < 100 x ca SL), ca** (Where nc SL < 10 x ca SL),
 max=SL exceeds ceiling limit (see User's Guide), sat=SL exceeds csat, sol=SL exceeds Solubility
 I=IRIS; P=PPRTV; A=ATSDR; C=Cal EPA; X=APPENDIX PPRTV SCREEN; H=HEAST

Chemical	Dermal SL 1.0E-5 (mg/kg)	Inhalation SL TR=1.0E-5 (mg/kg)	Carcinogenic SL TR=1.0E-5 (mg/kg)	Ingestion SL Child HQ=1 (mg/kg)	Dermal SL Child HQ=1 (mg/kg)	Inhalation SL Child HQ=1 (mg/kg)	Noncarcinogenic SL Child HI=1 (mg/kg)	Cleanup Level (mg/kg)
Dioxane, 1,4-		2.9E+02	5.9E+01	2.5E+03	-	1.6E+03	9.8E+02	5.9E+01 ca



Output generated 29APR2016:13:35:45

Developing Site Specific Cleanup Levels using Site Specific Data.

If you choose to enter site-specific data to propose a cleanup level under method 3, please review Section 7.0 of the [Procedures for Calculating Cleanup Levels](#) to see what values can be entered to calculate site specific values. All site-specific information entered must be reviewed and approved by the DEC project manager for how it was collected and its representativeness in your proposal for method 3 cleanup levels.

If you have completed steps 1 – 10 and have chosen site-specific in step 3, then step 11 will bring you to the User-Provided Inputs page. After you enter site-specific information, hit Retrieve at the bottom of the page. This will provide you with a list of all the inputs, including site-specific inputs you entered, along with the risk-based cleanup levels at the bottom of the page. At the very top of the page, you will see two options for downloading the results: 1) Output to Spreadsheet and 2) Output to PDF.

Inputting Information for added Chemicals. If you choose this option, you will be asked for a variety of chemical specific information including toxicity values. Review these parameters in the appendix tables in [Procedures for Calculating Cleanup Levels](#). You are strongly encouraged to consult DEC technical support staff for assistance with this option.