



EPA'S EXPOSURE FACTORS INTERACTIVE RESOURCE FOR SCENARIOS TOOL

GETTING STARTED

Additional supporting documentation for ExpoFIRST users is provided in the tool. From the ExpoFIRST homepage select 'User's Guide and Other Resources' to access all ExpoFIRST user resources.

ExpoFIRST is a standalone tool available for download from the Exposure Factors module of the EPA-Expo-Box website. The tool was designed for exposure assessors who have an understanding of general concepts of exposure assessment. ExpoFIRST was developed using Microsoft Access and Visual Basic for Applications (VBA), and the tool is compatible with 2007 and 2010 versions of Microsoft Office. A freely-available Microsoft Access runtime environment is available on the Microsoft website for users that do not have Microsoft Access installed on their computer.

Note: If your ExpoFIRST screen looks distorted or text is cut off try reducing the font size on your computer or reducing the screen display to 100 percent to correct the problem.

Start a New Scenario

Move through a series of five tabs in the tool to develop a new exposure scenario, including:

- **Tab 1: Scenario Description**—Enter the scenario name and description, and select the route of exposure, dose metric, and exposure descriptor on this screen. Make these selections before continuing to Tab 2. The tool will display the appropriate algorithm for the dose metric of interest based on your selections.
- **Tab 2: Media & Receptors**—Select options to characterize medium and receptors, based on the exposure route that you selected on Tab 1.
 - For ingestion, the media choices include water, various types of food, and unintentional or activity-related (soil, dust, soil-pica, geophagy, swimming); additional selections are required for media subgroups. Receptor characteristics choices include: consumer type, gender, and age bins and/or other population groups; other population groups include race/ethnicity, pregnancy/lactation, health status, socioeconomic status, geographic location, etc. Make these selections before continuing to Tab 3.
 - For inhalation ADR/ADD/LADD, the media type is air; additional selections are required for inhalation rate type (e.g., long-term [daily], short-term [activity-specific]); you must also select intensity level when short-term is selected. Make additional selections pertaining to location/activity and receptor characteristics (gender, age bins, and/or other population groups) before continuing to Tab 3.
 - For inhalation adjAir concentration, the media type is air; make additional selections for location/activity and receptor characteristics (gender, age bins, and/or other population groups) before continuing to Tab 3.

- For dermal contact, the media choices include solids or water; make additional selections for location/activity, skin surface area, and receptor characteristics (gender, age bins, and/or other population groups) before continuing to Tab 3.
- **Tab 3: Contaminants**—All chemical-specific information must be entered by the user. After entering the chemical-specific information select the contaminant and enter the contaminant concentration and units. If the algorithm requires additional chemical-specific parameter values, you should define those values here. If the units of contaminant concentration need to be converted, you can use the ‘unit conversions’ feature.
- **Tab 4: Exposure Factors**—This tab lists each receptor group based on age and/or other population groups; click on the receptor group of interest to view exposure factors, exposure factor values, and factor-specific notes. On this screen, you can modify exposure factor values to be more site-specific and provide your own pertinent notes for the modified factor values in the ‘Description’ field.
- **Tab 5: Results**—A summary of dose estimates by contaminant and receptor group is provided based on the exposure scenario that you defined; from this tab, you can export detailed results to an MS Excel ExpoFIRST report.

Instructional notes are included for fields within ExpoFIRST. These field-specific notes provide examples and are designed to guide you through the various aspects of the tool. Notes appear to the right of the input screen when a field is selected to assist you with entering data or making selections unless a help button is provided. Where available click the help button for additional guidance on certain parameters.

A ‘Record Scenario Notes’ button is available on each tab of ExpoFIRST. The user can add notes to a single location at any stage of developing an exposure scenario. All scenario-specific notes are exported to the MS Excel ExpoFIRST report.

My Saved Scenarios

New scenarios are saved automatically by ExpoFIRST. A list of all of your saved scenarios can be viewed under ‘My Saved Scenarios’.

Under ‘My Saved Scenarios’, you can view a list of all saved scenarios along with the exposure route, medium, dose metric, and exposure descriptor that you selected for each scenario. A keyword search can be performed to help you identify saved scenario(s) of interest.

From this screen, you can export results of one or more scenarios of interest. Scenarios of interest can be selected by clicking the check boxes to the left of each scenario name. Use ‘select all’ to select all saved scenarios or ‘clear all’ to clear all selections. After all scenarios of interest are selected, click ‘Export’ to view the results summaries in an MS Excel ExpoFIRST report. Also, at this screen, you can ‘view’ or ‘delete’ saved scenarios.



You can access your saved scenarios from the ExpoFIRST home page (left-hand side) or from any of the five 'current scenario' tabs (upper right portion of screen).

Exporting Results

You can export your saved scenarios to an MS Excel ExpoFIRST report from two locations in the tool: the 'Results' tab for a current scenario and from the 'My Saved Scenarios' screen accessible from the ExpoFIRST home page. Exports provide: scenario name and description; a summary of all of your inputs and selections; the dose metric algorithm; exposure factor values, sources, assumptions, and other important notes; and calculated dose estimates for all receptors.

Other Help

The following supporting documentation and resources are available in ExpoFIRST:

Documentation	How to Access
Annotated Screenshots	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page
Frequently Asked Questions	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page
Glossary	<ul style="list-style-type: none"> ▪ ExpoFIRST home page
Instructional Notes	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page ▪ Throughout ExpoFIRST in panel on right-hand side of screen
Links to EPA Resources and Guidance Documents	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page
References Cited in 2011 EFH Tables Included in ExpoFIRST	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page
Report Notes	<ul style="list-style-type: none"> ▪ User's Guide and Other Resources button on ExpoFIRST home page ▪ ReadMe Tab of all ExpoFIRST MS Excel Reports

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