



UNITED STATES
National Library of Medicine

*Review of PDA Applications
in
Toxicology and Environmental Health:*



Air Toxics

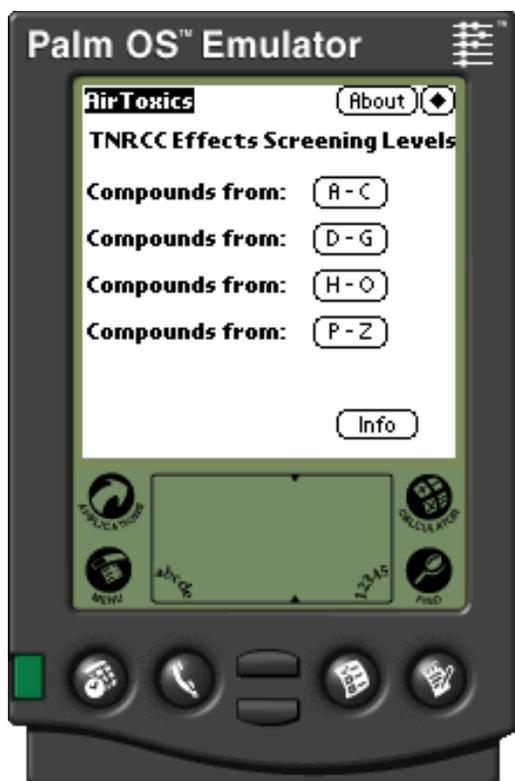


Specialized Information Services Division
National Library of Medicine
National Institutes of Health
Department of Health and Human Services
Bethesda, Maryland, USA



Air Toxics

(Reviewed 06/2002)



General Information

For general comments regarding the *Review of PDA Applications in Toxicology and Environmental Health*, please see the [Overview](#). Here we review the main technical and content features of the Palm OS version of *Air Toxics* (1.0) based upon a free, downloadable demo. *Air Toxics* is an e-document that provides toxic air pollution levels for over 1,800 compounds. The data are derived from the Effects Screening Levels (ESL) list, a reference for screening hazardous air pollution levels developed by the Texas Natural Resource Conservation Commission (TNRCC). The ESL list is used by the TNRCC Toxicology and Risk Assessment (TARA) section staff to evaluate the potential for toxic effects to occur as a result of exposure to certain levels of constituents detected in the air. It was last updated by the TNRCC in September 1997.

Intended Users

- Environmental Health Specialists
- Occupational Health Specialists
- HazMat Personnel
- Industrial Hygienists

Authorship/Data Source

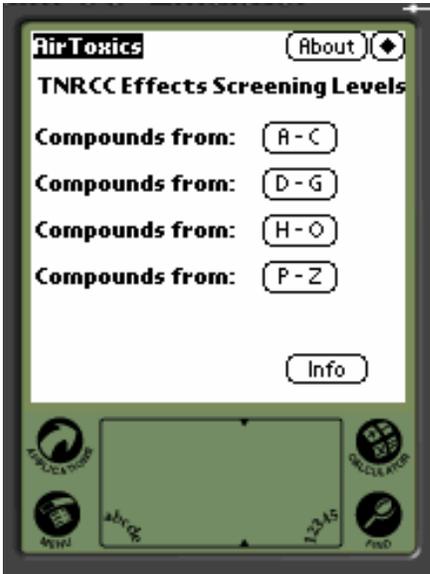
The data contained in the e-document were originally generated by the Texas Natural Resource Conservation Commission (TNRCC) as part of the ESL list. They were “repackaged” by Keith Zimmermann and last submitted to PDA distributors in March 2002.

Contents

This e-document lists the toxic air pollution levels (Effects Screening Levels) for over 1,800 compounds in a column format. The ESL list is meant to serve as a reference and is based on data concerning health effects, odor nuisance potential, effects regarding

vegetation, and corrosion effects. The listed values are not intended to be used as ambient air standards; they are instead to be used to evaluate the potential for toxic effects to occur as a result of exposure to certain levels of constituents detected in the air.

If predicted or measured airborne levels of a substance did not exceed the screening levels, no adverse effects on health or welfare would be expected. If, on the other hand, the airborne levels of a substance did exceed the screening levels, this would not necessarily indicate a problem but rather a reason for a more in-depth assessment.



◀ *The opening screen shows the document's four main sections (A–C, D–G, H–O, P–Z), into which the list of compounds is subdivided, and provides links to them. The “Info” section provides general information about the document, such as the data source, the URL of the data provider, the e-mail address of the data submitter, and a brief description of the document's contents and coverage.*

▶ *As an example, the screen shot to the right shows the D–G section of the list of compounds. Compounds are listed in alphabetical order on the left side, and the corresponding ESL values (in $\mu\text{g}/\text{m}^3/\text{hour}$ and $\mu\text{g}/\text{m}^3/\text{year}$) are shown on the right side. Note that the values are cut off on the right side of the demo screen.*

Compound	1-hr ug/m3	annual ug/m3
2,4-D	100	
DDT	1	
Dalapon	58	
Danitol	50	
daunomycin	1.	
deanol (odor)	59	
decaborane	2.	
decabromodiphenyl oxide		
decalin	39	
decane	10	

Navigation

This is an application that functions in an offline mode and does not require any degree of mobile connectivity. The *TealInfo*[™] reader is required to view the *Air Toxics* e-

document. It is worth noting here that *TealInfo*[™] does not allow copying/cutting and pasting of text and does not provide a search function. For further information on *TealInfo*[™] navigation, please go to www.tealpoint.com/tealinfo/files/infodoc.htm (*TealInfo*[™] Online User's Manual).

As mentioned before, the *Air Toxics* document is organized into four lists of compounds, as shown in the first screen shot above. From the main screen, the user can select the A–C, D–G, H–O, or P–Z sections to access the scrollable lists.



Compound	1-hr ug/m3	annual ug/m3
Abamectin	0.4	1
Abate, respirable	50	1
acenaphthene*	1	1
acetal	49	1
acetaldehyde (odor)	90	1
acetamide	32	1
acetic acid	25	1
acetic anhydride	20	1
acetoacetoxyethyl methacrylate, 2-	2	1
acetone	56	1

◀ *A portion of the scrollable list of compounds in the A–C section is shown in the screen shot to the left. Scrolling is accomplished by tapping the scroll buttons or by dragging the movable scroll bar on the right side of the screen. Alternatively, inputting any letter will take the user to the first word in the list that starts with that letter. However, there are no indications as to which section of the list the user is in. As a result, the user may input the letter H while in the D–G section of the list and wonder why the program is not responding. Tapping on items in the list does not provide the user with additional information.*

In the screen shown above, tapping on [Return] will take the user back to the initial display, where a different list can be selected. To exit the application, the user can tap on the black diamond in the upper right corner.

(Please note that the application reviewed here uses version 4.10 of the *TealInfo*[™] reader. Employing other versions of *TealInfo*[™] will likely result in different screen displays and navigational features.)

Requirements

- ❖ Palm OS 3.0
- ❖ 118 KB of RAM
- ❖ *TealInfo*[™] 4.10

Application Type/Price

- ❖ Freeware – *Air Toxics*
- ❖ \$16.95 – *TealInfo*[™] reader (single-user license)

Availability

Air Toxics is available from commercial PDA software distributors at no cost as freeware. The *TealInfo*[™] reader is available from TealPoint.com.

Useful Web Links

For further information on the Texas Commission on Environmental Quality (formerly known as the Texas Natural Resource Conservation Commission, TNRCC), please visit <http://www.tceq.state.tx.us/index.html>. For additional information on *TealInfo*[™], go to www.tealpoint.com.

Review of PDA Applications in Toxicology and Environmental Health

Overview

Handheld computer devices known as Personal Digital Assistants (PDAs) are increasingly being used in the fields of toxicology and environmental health. Moreover, software applications covering specialized subject matter in these fields are increasingly being made available to PDA users.

In an effort to provide information on the main technical and content features of selected applications, the National Library of Medicine's Division of Specialized Information Services (SIS) has undertaken an ongoing review of them. Typically, individual reports in the review series are based on free, downloadable demos.

Each report typically covers the following topics: General Information, Intended Users, Authorship/Data Source, Contents, Navigation, Requirements, Application Type/Price, Availability, Useful Web Links, and Updates.



Note: The *Review of PDA Applications in Toxicology and Environmental Health* is not intended to be all comprehensive, but rather a review of selected applications. SIS staff welcomes any comments on completed reviews or suggestions for additional reviews of applications not currently included, as long as they fall within the scope of toxicology and environmental health. You may contact us via email at tehip@tehnlm.nih.gov with any comments, questions, or suggestions.

It is not the intention of SIS staff to recommend, or not recommend, any particular PDA device(s) or software application(s), but rather to provide an objective and descriptive review of the main technical and content features of selected applications based on their downloadable demo versions.

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