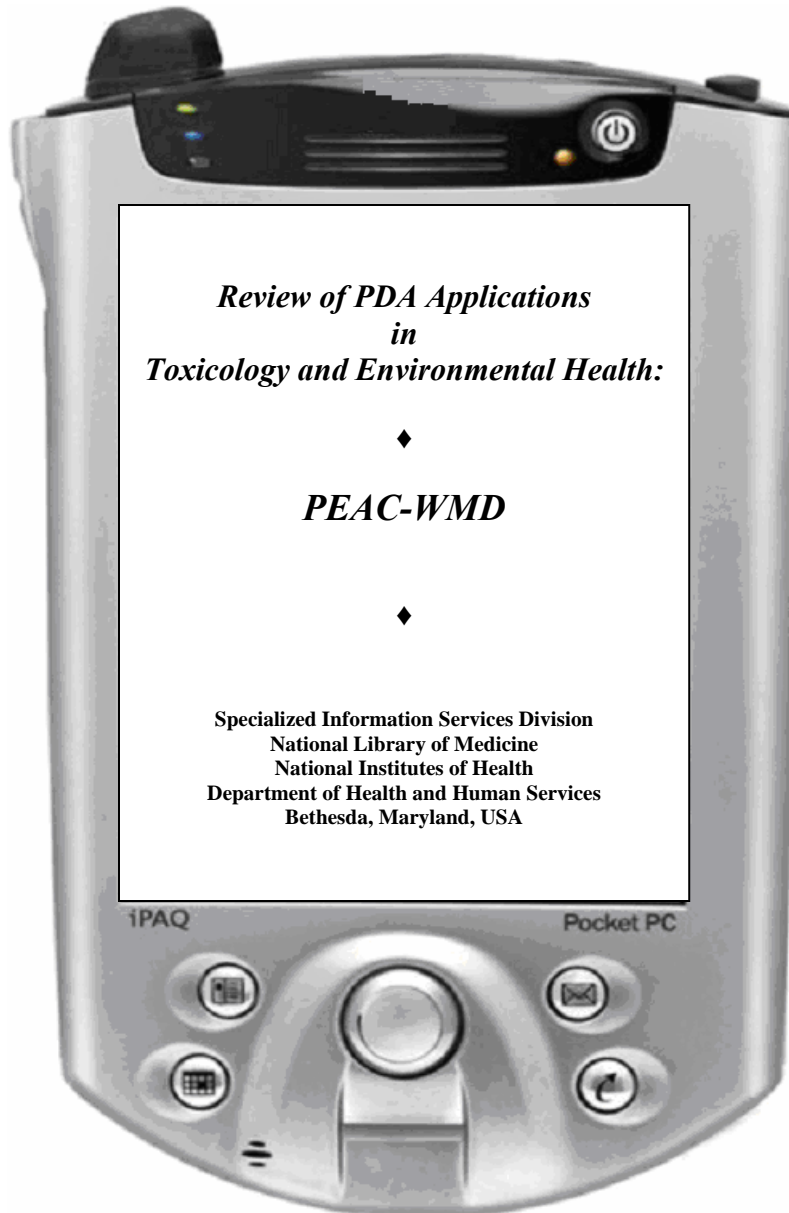




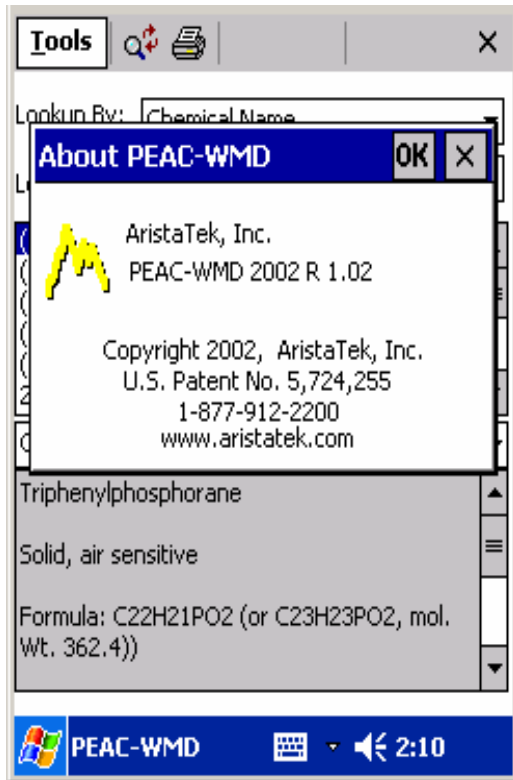
UNITED STATES

National Library of Medicine



PEAC-WMD

(Reviewed 09/2003)



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 *PEAC-WMD (1.02)* based upon a free, downloadable demo. *PEAC-WMD* (Palmtop Emergency Action for Chemicals – Weapons of Mass Destruction) is produced by AristaTek, Inc. and is intended for personnel responding to HazMat or WMD incidents. The latest version contains an extensive set of chemical databases, as well as information on biological agents, chemical warfare agents, radioactive isotopes, and explosives. It also includes ATF vehicle bomb tables and calculators to determine standoff distances for explosive devices and toxic vapor clouds. The handheld version of *PEAC-WMD* runs on a Pocket PC.

Intended Users

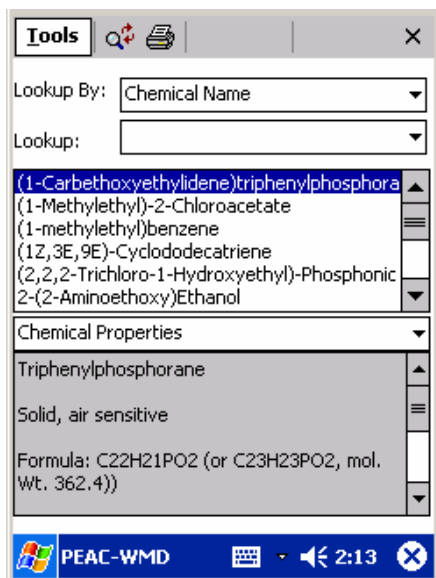
- First Responders
- Rescue Personnel
- EMS Personnel

Authorship/Data Source

This application is produced and copyrighted by AristaTek, Inc., a company founded by former employees of the University of Wyoming Research Corporation, d/b/a/ Western Research Institute (WRI). The data contained in the 2002 version of this application were derived from numerous sources, including the National Institute for Occupational Safety and Health (NIOSH), the National Fire Protection Association (NFPA), the National Institute of Standards and Technology (NIST), the American Industrial Hygiene Association (AIHA), the U.S. Department of Transportation (DOT), and the Material Safety Data Sheets (MSDS).

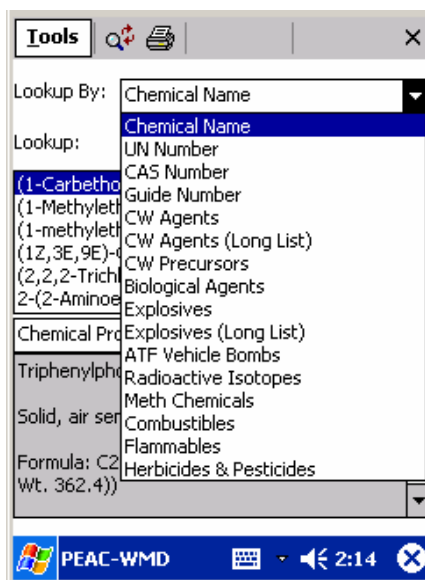
Contents

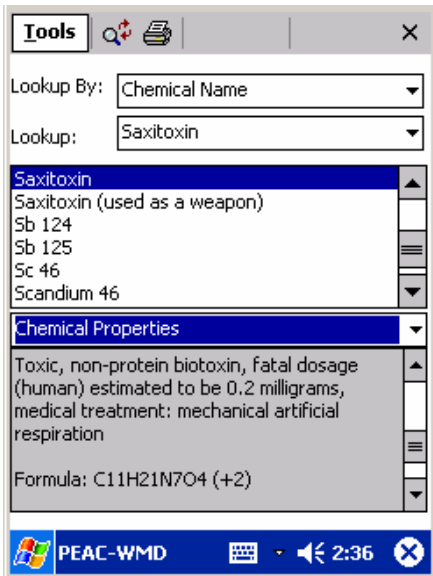
The *PEAC-WMD* tool provides the following information for 10,000+ chemicals and synonyms searchable by chemical name, UN number, or CAS number: NFPA hazard rating designations; procedures and recommendations for 62 chemical classes from the DOT ERG2000 Guide; protective action distances (PAD) based on the IDLH as the default level of concern (LOC); specific chemical protective clothing information from manufacturers; chemical and physical properties such as flash point, boiling point, lower explosion limit, etc.; and NIOSH Guidebook respirator recommendations.



◀ *The screen shot to the left shows the initial screen display a user would see. The application's contents may be accessed by selecting one of several categories, such as Chemical Name, and then either typing a chemical name into the Lookup box via the optional keyboard or choosing a chemical from the central scrollable list of chemicals. The information for that chemical (e.g., that contained under Chemical Properties) is then displayed in the bottom portion of the screen in scrollable form.*

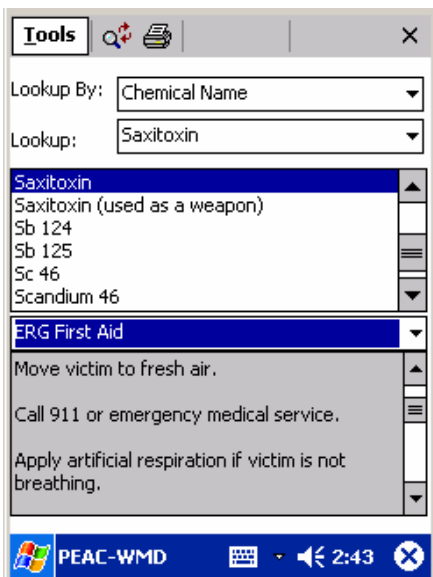
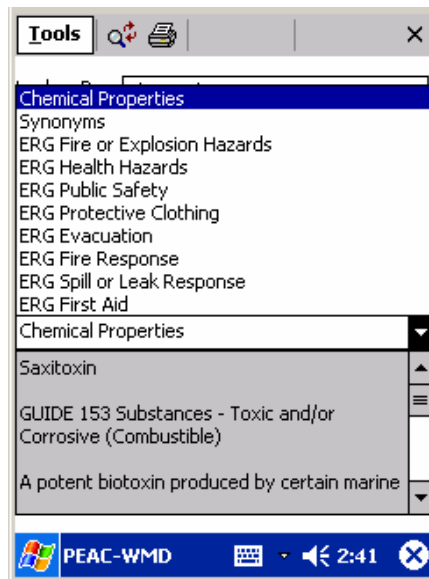
▶ *The screen shot to the right displays the various categories by which a user may access information. In addition to accessing the application's contents by Chemical Name, a user may do so by selecting or entering a number (UN, CAS, or Guide Number) or any of the following substance categories: CW (chemical warfare) Agents, CW Precursors, Biological Agents, Explosives, ATF Vehicle Bombs, Radioactive Isotopes, Meth Chemicals, Combustibles, Flammables, and Herbicides & Pesticides.*



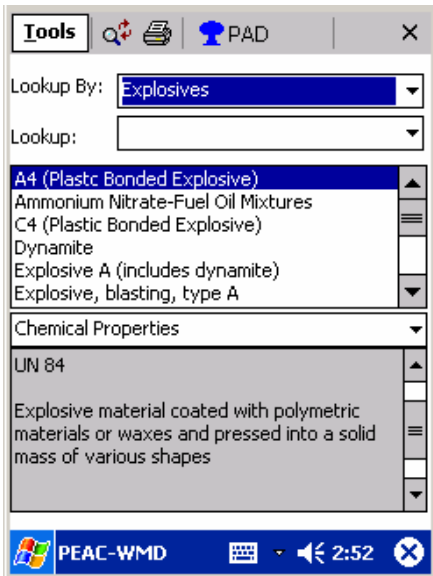


◀ *As an example, the screen shot to the left shows a portion of the information displayed under the Chemical Properties category for the biotoxin Saxitoxin. The information is displayed in scrollable form.*

▶ *The screen shot to the right shows the information categories available for Saxitoxin, as well as for most other substances: Chemical Properties, Synonyms, and, from the Emergency Response Guidebook (ERG), Fire or Explosion Hazards, Health Hazards, Public Safety, Protective Clothing, Evacuation, Fire Response, Spill or Leak Response, and First Aid. The information categories listed vary with the substance looked up.*

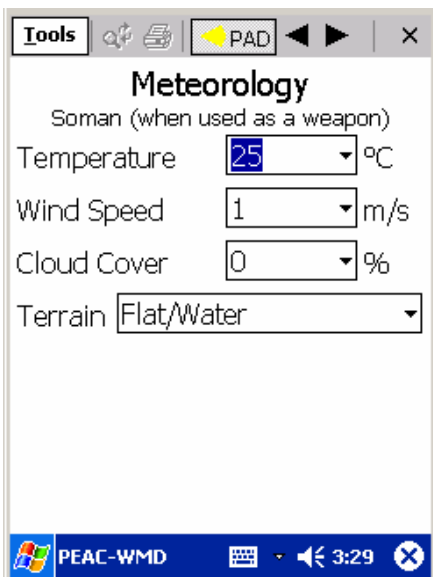
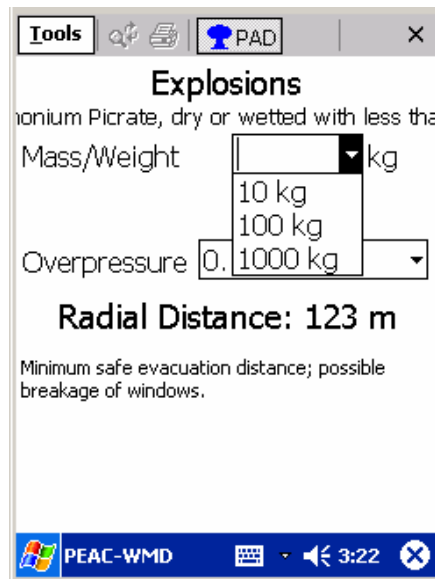


◀ *The screen shot to the left displays another information category – ERG First Aid – and part of its contents for Saxitoxin. The information is displayed in scrollable form.*

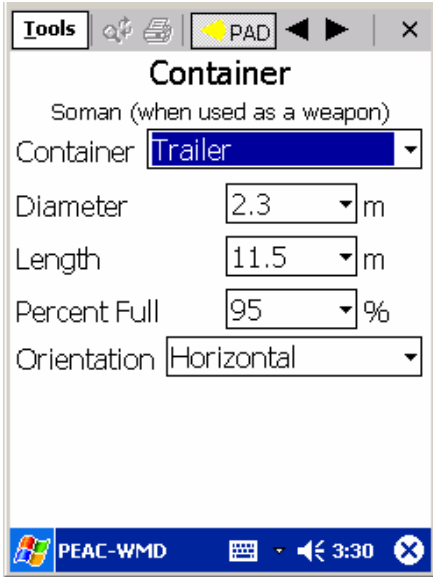


◀ The screen shot to the left shows a different substance category – Explosives. In this particular case, the screen displays a portion of the Chemical Properties information for the explosive A4 (Plastic Bonded Explosive) or UN 84.

▶ The screen shot to the right displays a feature of the PEAC-WMD application that allows the user to determine the protective action distance (PAD) for explosive materials. In this example, selecting a specific Mass/Weight and Overpressure value for Ammonium Picrate will yield the corresponding Radial Distance information.

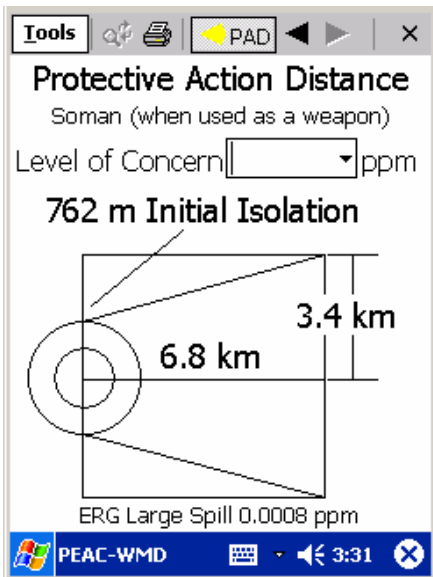
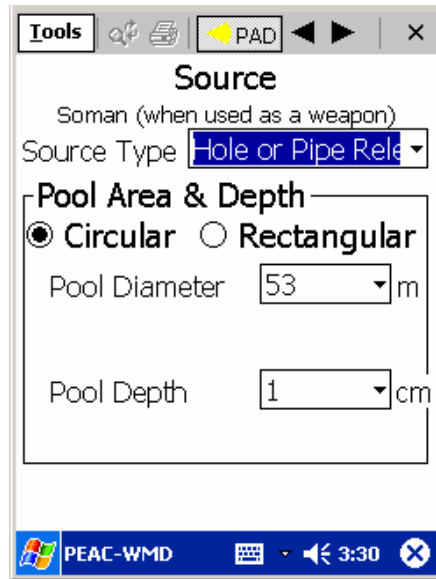


◀ The screen shot to the left and the following screens illustrate a similar feature of the application, one that allows the user to determine the PAD in the case of spills, leaks, or releases. This first screen allows the user to specify the meteorological conditions existing at the time of the incident: temperature, wind speed, cloud cover, and type of terrain. The warfare agent Soman is used for illustrative purposes.



◀ *The second screen in the series of screens required for determining the PAD in the case of spills, leaks, or releases allows the user to specify the characteristics of the container: its type, diameter, length, fullness, and orientation. This screen is accessed by tapping the right arrow (▶) on the previous screen.*

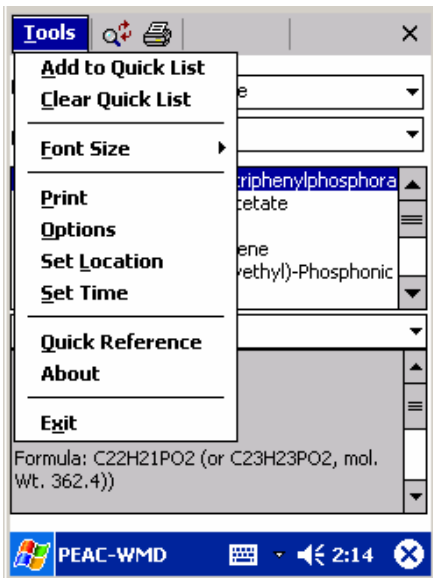
▶ *The third screen in the series of screens required for determining the PAD in the case of spills, leaks, or releases allows the user to specify the source type as well as the pool (spill) area and depth characteristics. This screen is accessed by tapping the right arrow (▶) on the previous screen.*



◀ *The final screen in the series of screens required for determining the PAD in the case of spills, leaks, or releases displays the actual PAD data specific to the values selected on the previous screens. This screen is accessed by tapping the right arrow (▶) on the previous screen.*

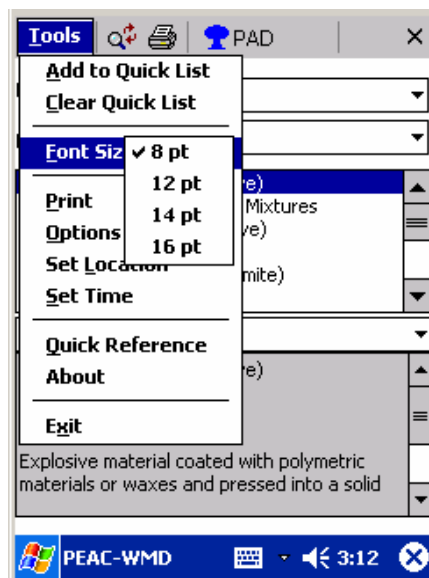
Navigation

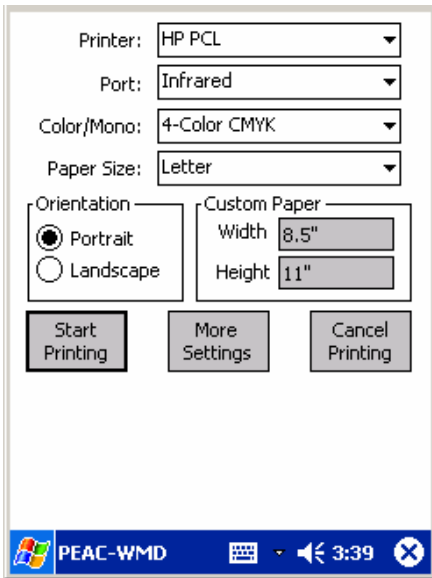
The screen shots that follow illustrate features of the *PEAC-WMD* application that allow the user to select specific options, set specific values, or access navigation-related information.



◀ The screen shot to the left displays the *Tools* menu and its available options: *Add to Quick List* (allows user to create a customized list of substances), *Clear Quick List* (allows user to delete the customized list of substances), *Font Size* (see below), *Print* (see below), *Options* (see below), *Set Location* (see below), *Set Time* (allows user to set separate times and alarms), *Quick Reference* (see below), *About* (displays basic information about *PEAC-WMD*), and *Exit* (allows user to exit the application). Exiting the application is also possible by tapping on the “X” at the top or bottom of the screen.

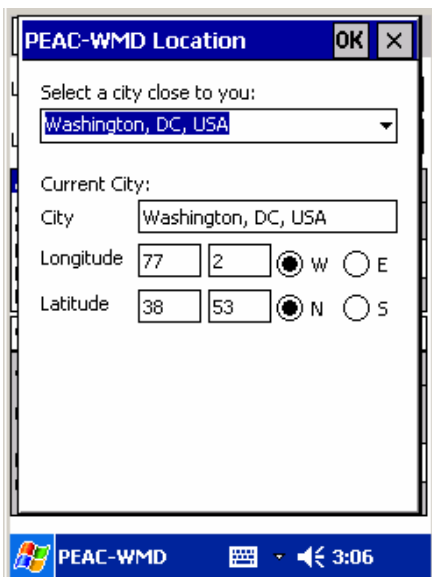
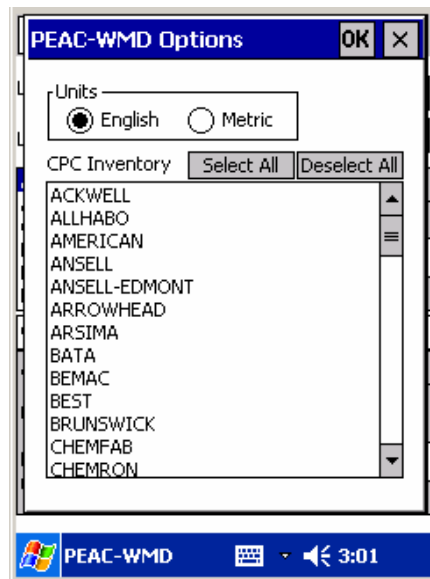
▶ The screen shot to the right shows the font size options that are displayed when the user selects the *Font Size* item from the *Tools* menu. Four font sizes – 8 pt (default), 12 pt, 14 pt, or 16 pt – are available for displaying information in the bottom, scrollable portion of the screen.



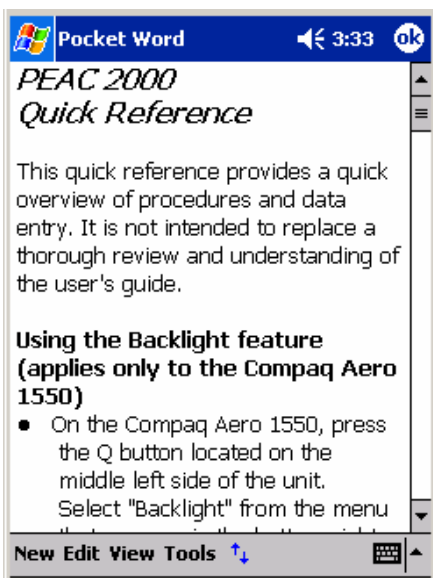


◀ *The screen shot to the left illustrates the print options screen that is displayed when the user selects the Print item from the Tools menu. Alternatively, the user may select the same screen by tapping on the printer icon at the top of the screen display (see Tools menu screen shots above).*

▶ *The screen shot to the right displays the Options item available via the Tools menu. This screen allows the user to choose between English and metric unit display and to select/deselect specific or all manufacturers from a scrollable list.*

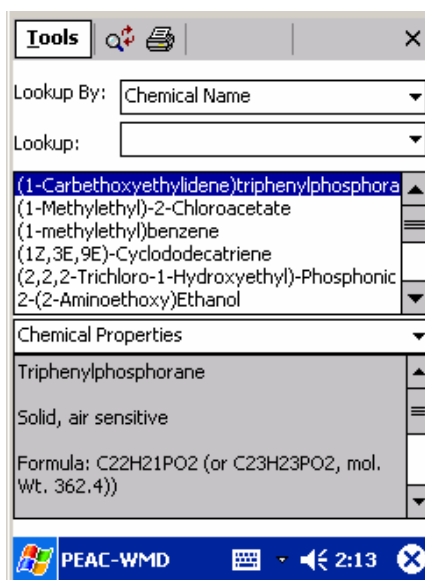


◀ *The screen shot to the left displays the Set Location item available via the Tools menu. This option allows the user to set the coordinates for the city nearest an incident site.*



◀ *The screen shot to the left displays the Quick Reference item available via the Tools menu. This scrollable screen provides the user with a brief overview of the application's functions, such as procedures and data entry, along with various Pocket Word functions and features (see menu bar at bottom of screen).*

▶ *The screen shot to the right illustrates an additional feature of the application. Tapping the "magnifying lens" icon at the top of the screen allows the user to expand to a full screen format the information contained in the bottom, scrollable portion of the screen (grey area). Alternatively, the user may simply tap the grey area to expand the screen. Tapping the icon, or the grey area, again will return the user to the original screen display.*



Requirements

- ❖ Windows Pocket PC
- ❖ ~2.5 MB of RAM

Application Type/Price

- ❖ Commercial
- ❖ \$1,495 (includes technical support and upgrades for 1 year)

Availability

PEAC-WMD is available from its producer (AristaTek) and from commercial PDA software distributors.

Useful Web Links

For information about AristaTek, Inc., visit www.aristatek.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.

[<BACK>](#)