



HazRAE

Chem/Bio/WMD/Rad Decision Support

PDA- and PC-based Searchable First Responder Database

Developed specifically to address the unique needs of first responders, HazRAE is the most complete hazardous materials decision support application for chemical, biological, radiological and WMD assessments. HazRAE is the only tool of its type to be approved under the US Department of Homeland Security's SAFETY Act as an Effective Anti-Terrorism Product.

96,000 Materials

HazRAE includes integrated response information for more chemical agents (TICs, TIMs, CW agents), biological agents (bio-weapon and bioterror agents), radioactive materials, improvised explosive devices and detonators than all the other legacy systems combined!

Searchable Database and Unknown Material Identification

HazRAE's materials database can be searched using traditional identifiers such as name, UN or CAS number. HazRAE can also search for and identify unknown materials by physical properties, such as color and odor, or by the symptoms of victims of exposure.

Improvised Explosive Devices

HazRAE provides Improvised Explosive Device (IED) and Improvised Nuclear Device (IND) standoff distances and evacuation calculators.

Responder Assessments

HazRAE provides guidance for responding to incidents using its patent-pending signature library of 780,000+ attributes:

- Identify a broad range of dual-use precursors and model outcomes
- Virtually mix agents and model their chemical reactions
- Identify agent-specific protective clothing and respirators for an incident
- Identify Correction Factors for RAE Systems 9.8 eV, 10.6 eV and 11.7 eV PID lamps used in MultiRAE Plus, MiniRAE 2000 and ppbRAE Plus
- Identify emergency life support/first aid guidelines for chemical, biological and radiological agents

International and Maritime

Ready for international and maritime operations, HazRAE displays units of measure in both imperial and metric units. It displays and decodes EAC, HIN, APP, PG and UN hazard codes, and includes trade names in German, English, French, and Spanish.

Key Features

- More than 150 fields containing physical properties, material hazard categories, decontamination procedures, working allowances, reactivity, Acute Exposure Guidelines (AEGLs), Military Exposure Guidelines (MEGLs), Levels of Concern (LOCs), and more
- Intuitive, full-color view of isolation distances and protective action zones
- Time-stamped, high-resolution accountability logging
- HazRAE is the only DOD Common Operating Environment/Joint Technical Architecture compliant solution
- Integrated interactive NFPA704 classification identifier
- Cargo and railcar placard identification
- Detonator identification
- User-programmable PPE preplans



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www.raesystems.com



APPROVED
Under the US Department of
Homeland Security's SAFETY Act



Specifications*

Data Source	Number of materials and trade names	Where used
EPA, EU Commission on Hazardous Substances	96,000+	LEL, UEL, physical attributes, trade names
National Oceanic and Atmospheric Administration (NOAA)	70,723	Reactive materials, physical attributes, trade names
NOAA, EPA, CDC, USAMRIID	6,613	Reactivity, flammability, toxicity, specific hazards
Chemical Abstract Service	5,726	CAS numbers
DOT ERG-2004	3,408	Response SOP guides, isolation distances
NIH	5,432	Health, toxicological and ELSP information
USCG CHRIS	1,102	Various material attributes/water reactivity
EPA, OASG, NIOSH	1,101	IDLH values
DOE, CDC	2,519	TEEL, ERPGs
NFPA, RIDS	949	Fire rating classifications. Note: Where NFPA ratings between data sources differ, the most conservative value (from a safety perspective) is used.
NIOSH Pocket Guide	677	IDLH values, physical attributes, respirator recommendations
Argonne National Labs	633	Isolation Distances, Protective Action Zones
NIOSH, EPA, DuPont	31,000+	Protective clothing/breakthrough times
USAMRIID, WHO, CDC, HC	167	Biological warfare agents, biotoxins, and bioterror agents
FBI, DEA, ATF, EPA, United Nations	8,800+	Precursors for explosives, chemical warfare, cocaine, heroin, and methamphetamines

*Specifications are subject to change

HazRAE PDA Kit includes:

- HP iPAQ series PDA or equivalent
- Bluetooth® and 802.11 wireless enabled

HazRAE Software Version 3.0

- 64MB SD card with installation files

HazRAE Software-Only Kits include:

HazRAE Software Version 3.0

- 64MB SD card with installation file for Windows®-based PDAs OR
- CDROM with installation file for Windows®-based PCs

The image displays several screenshots from the HazRAE software interface. One screen shows a diamond-shaped hazard identification tool with a red top section (-3), a blue left section (-2), and a yellow right section (-1). Below it, text indicates: Fire Hazard: <100°F (38°C), Health Hazard: Extreme danger, Reactivity: Unstable if heated, and Special Info: None specified. Another screen shows a spill simulation with a yellow circle representing the initial isolation zone and a green area for the protective action zone, with a wind direction arrow and downwind distance markers. A third screen shows a list of chemical agents: ACETONE, BENZONITRILE, CHLOROENZENE, CYANOGEN, and CHLORINE, with a pie chart showing precursor outcomes: Chem/WMD (8), Explosives (3), Heroin/cocaine (2), Meth (2), and Unknown (1). A fourth screen shows two diamond-shaped placards: one red with 'DANGER' and one red with 'DANGEROUS'.

Example screens from HazRAE:

NFPA Identification, Chemical Isolation Distance, Placard Identification, Mixture/Precursor Screen

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RAE Systems Inc. USA/Canada 1-877-723-2878
 3775 North First Street Europe/Russia +45 8652 5155
 San Jose, CA 95134 USA Middle East/Australia 971 50 429 1385
 raesales@raesystems.com China 8610 58858788
 Asia +852 2669 0828

www.raesystems.com

