



Helping First Responders During Hazmat Incidents: Mobile Emergency Response Guide

A DHS Science and Technology Center of Excellence Solution

Mobile App Helps Emergency Responders Quickly Identify Hazardous Materials

The **Mobile Emergency Response Guide (MERGE)** is helping first responders quickly identify hazardous materials and find information about how to safely handle these materials to protect the public during an emergency response.

Developed by the Center for Visual and Data Analytics (CVADA), a Department of Homeland Security (DHS) Science and Technology (S&T) Center of Excellence, MERGE gives first responders handheld access to an electronic version of the Department of Transportation's Hazmat *Emergency Response Guide* suitable for use with smartphones or other handheld devices.

How It Works

Developed at the direct request of first responders from the Indiana Public Safety community, MERGE capabilities include:

- A streamlined user interface that emergency responders or civilians can follow to obtain instructions on how to deal with hazardous materials emergencies
- An image analysis feature that automatically reads the hazardous materials sign or placard

Operating MERGE is simple. A user takes an image of a hazardous materials sign using an Android smartphone, the system interprets the sign, and the user receives proper response protocols about the hazardous material from the electronically stored *Emergency Response Guidebook*.

MERGE for End Users

A MERGE prototype was first deployed in June 2011. MERGE is now being used by:

- Transportation Security Administration
- Department of Agriculture
- Carroll County Emergency Management (Indiana)
- Lafayette Indiana Police and Fire Department
- Indianapolis Metropolitan Police and Fire Department
- St. Clair, Michigan Fire Department

MERGE Helps First Responders Access Hazmat Information More Quickly

First responders in Carroll County, Indiana tested MERGE's image analysis feature and interface. First responders normally carry a hard copy of the *Emergency Response Guidebook* in their vehicles. Having to look up a hazmat sign in the book to identify potentially hazardous materials normally takes several minutes.

"The MERGE system is very quick, and it doesn't require you to have the guidebook nearby."

~Dave McDowell
Director, Carroll County Emergency Management Agency
Delphi, Ind.

