



## CAMEO®

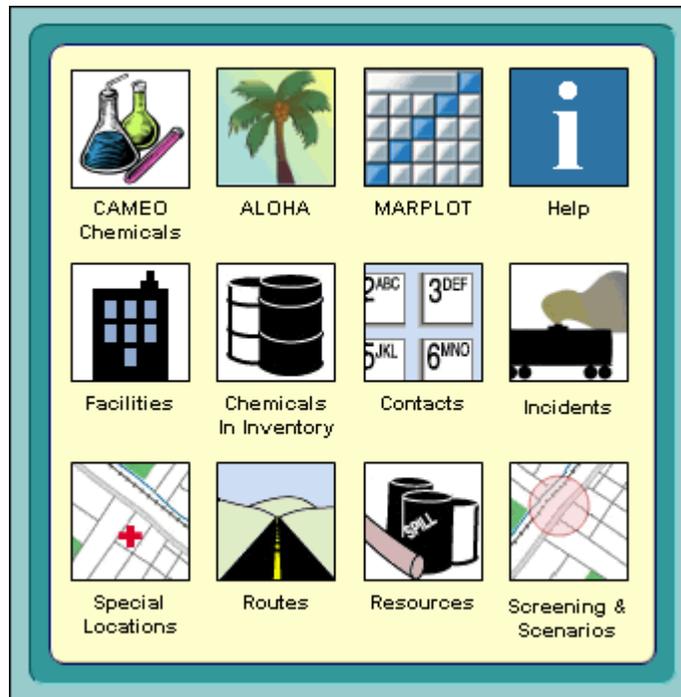
Placing accurate, timely information in the hands of decision makers is vital to a safe, effective response to a chemical incident.

Designed to assist first responders and emergency planners get to key information quickly, the CAMEO (Computer-Aided Management of Emergency Operations) software suite has four core programs: CAMEOfm, CAMEO Chemicals, ALOHA®, and MARPLOT®.

### How the CAMEO Software Suite Works

All programs work interactively to display critical information in an easy-to-understand manner. You can use the suite to:

- Manage data for emergency planning and response (including facilities, chemical inventories, contact information, and response resources).
- Access chemical property and response information.
- Find out how chemicals could react if they mixed.
- Estimate threat zones for hazardous chemical releases, including toxic gas clouds, fires, and explosions.
- Map threat zones and other locations of interest.



CAMEOfm's Home screen provides easy access to the CAMEOfm data management modules and other programs in the suite.

### CAMEOfm Data Management Modules

Keep track of information related to emergency response and planning using CAMEOfm's eight data management modules.

For example, you can store information about the chemical facilities in your community, including contact information and chemical inventories. Once you've entered your data into CAMEOfm, you can use the other suite programs to:

- Link the records about facilities and other locations to symbols on a MARPLOT map. This will allow you to quickly get to your data from CAMEOfm or MARPLOT.
- Find out more about the chemicals in inventory by looking in CAMEO Chemicals to get response recommendations and physical properties, or use ALOHA to predict the threat zones (if the inventory chemicals were released).

**CAMEO Chemicals**

Home  
Help

Search Chemicals  
New Search  
Modify Search  
Search Results

MyChemicals  
chemicals: 0  
View MyChemicals  
Predict Reactivity

Chemical Datasheet [Add to MyChemicals](#) [Print Friendly Page](#)

CHLORINE

Chemical Identifiers  
[What is this information?](#)

CAS Number 7782-50-5 UN/NA Number 1017 DOT Hazard Label Poison Gas Oxidizer Corrosive USCG CHRIS Code CLX

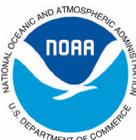
NFPA 704

Diamond	Hazard	Value	Description
0	Health	4	Can be lethal.

The chemical datasheet for chlorine includes response recommendations and physical properties.

The CAMEO suite is developed jointly by the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA).

The CAMEOfm modules are especially useful for data management tasks required under the Emergency Planning and Community Right-to-Know Act (EPCRA).



## CAMEO Chemicals and Response Information



CAMEO Chemicals has an extensive chemical database with critical response information for thousands of chemicals.

- **Chemical datasheets** provide physical properties, health hazards, information about air and water hazards, and recommendations for firefighting, first aid, and spill response.
- **UN/NA datasheets** provide response information from the Emergency Response Guidebook (ERG) and shipping information from the Hazmat Table (49 CFR 172.101). ERG Response Guide PDFs are available in English, Spanish, and French.

You can also add chemicals to the MyChemicals collection to see what hazards might occur if the chemicals in the collection were mixed together.

**Note:** The CAMEO Chemicals website is available at <https://cameochemicals.noaa.gov>, and there is a mobile version of the site (<https://m.cameochemicals.noaa.gov>) that has been optimized for smaller screen sizes. Additionally, there is also a desktop version of the program that has all of the same features as the online versions—but it can be run locally on your computer without an internet connection. Only the desktop version can share information with the other programs in the CAMEO software suite.

## ALOHA and Threat Zone Plots



ALOHA can predict the area that could be affected by a toxic cloud, as well as potential threats from chemical fires or explosions. Graphical outputs include threat zone plots, threats at specific locations, and source strength graphs.

A threat zone is an area where a hazard (such as toxicity, flammability, thermal radiation, or damaging overpressure) has exceeded a user-specified Level of Concern.

Threat zones can easily be displayed in ALOHA or on a MARPLOT map. You can also import threat zones into Esri's ArcMap (using the tool that is available at [http://response.restoration.noaa.gov/aloha\\_arcmap](http://response.restoration.noaa.gov/aloha_arcmap)) or into Google Maps or Google Earth (using ALOHA's KML export feature).

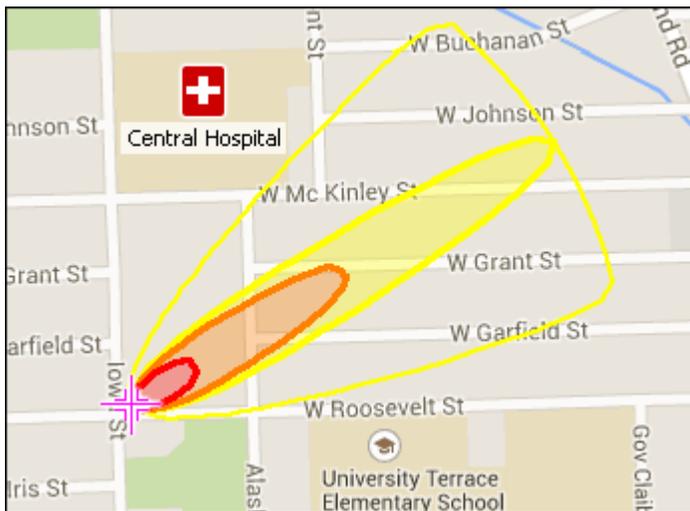
## MARPLOT and GIS-Compatible Output



With MARPLOT's easy-to-use GIS interface, you can add your own objects to maps, as well as view and edit data associated with those objects.

When you display ALOHA threat zones in MARPLOT, you can get population estimates for the potentially impacted area. You can also check within the threat zone for facilities storing hazardous materials and locations of special concern (such as hospitals and schools).

Important data about these locations (such as emergency contacts, hours of operation, and chemical inventories) can be displayed in CAMEO*fm* to help you make decisions about the degree of hazard posed by the incident.



A sample MARPLOT map with a tricolored ALOHA threat zone estimate displayed near a symbol object representing a hospital.

## Getting CAMEO

To download any program in the suite free of charge, go to <https://www.epa.gov/cameo>.

CAMEO suite programs run on both Windows and Macintosh computers.

## CAMEO Contact Information

For additional information:  
<http://response.restoration.noaa.gov/comesuite>  
[orr.cameo@noaa.gov](mailto:orr.cameo@noaa.gov)

*NOAA's Office of Response & Restoration—Protecting our Coastal Environment*

For further information about NOAA's Office of Response and Restoration,  
please call (301) 713-2989 or visit our website at  
<http://response.restoration.noaa.gov>

