

CAMEO_{fm} EXERCISES

Find the following in the Chemical Information Database:

<i>Common Name</i>	<i>ERPG/ IDLH/TLV/TEEL</i>	<i>Health Hazards</i>
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UN/NA # 2688 _____

STCC # 4912271 _____

ALOHA EXERCISES

Use ALOHA to model a direct release of 150 pounds of SARIN.

Weather conditions are:

Wind Speed:	7 mph
Wind Direction:	SSE
Cloud Cover:	3
Temperature:	75 F
Inversion:	no
Relative Humidity:	50%

Are you experiencing any problems creating a footprint? Why doesn't ALOHA allow you to make a footprint for SARIN?

What value will you use for your Level of Concern? Why? Where can you find information about SARIN which could be used as the LOC?

Now, model SARIN at the 3 different TEEL levels. Notice how the resulting plumes are different?

MARPLOT EXERCISES

Create and print a MARPLOT map displaying a radius for the 3 ALOHA plumes for SARIN from the above scenario.

Use your MARPLOT county map for this exercise.

- 1) Create a new map layer titled "SARIN RELEASE"
- 2) Locate a spot for your fictitious release to occur.
- 3) Select the "Circle" tool from the left toolbar
- 4) Use your mouse to click and drag and draw a circle with a 6.0 mile radius.
- 5) Name the "object" "SARIN with TEEL = 0.0075 mg/m³"
- 6) Make the object color "PINK" and select a "Fill Pattern"
- 7) Select "OK". Is your radius displayed correctly on the map?
- 8) Repeat steps 4 – 7 with these changes:
 - a. 4.1 mile radius
 - b. Object name is "SARIN with TEEL = 0.05 mg/m³"
 - c. Make the color BLUE and the fill pattern different
- 9) Repeat steps 4 – 7 with these changes:
 - a. 1.7 mile radius
 - b. Object name is "SARIN with TEEL = 0.6 mg/m³"
 - c. Make the color RED and the fill pattern different
- 10) Print the map.
- 11) Save it as a bitmap file to your desktop (use the "File" menu). Make sure to give it a name!
- 12) Minimize all screens until you can see your desktop. Use a "photo editor" program to open the bitmap you just saved. You can now "edit" the picture using the photo editor functions. Edit the photo and print it.
- 13) You should now be able to e-mail the picture. If you can, e-mail it to someone you know or someone in your office, then print it again.
- 14) You may also "Export" the picture to other MARPLOT users as a ".mie" file. The other MARPLOT users would "Import" the .mie file, and the picture will appear EXACTLY as it does on your computer.

Are you satisfied with your printed maps? You can go back to MARPLOT and select each SARIN radius and change the Color, Fill Pattern, etc. by using the "Object--Object Settings" menu.

LandView 5 EXERCISES

Use your LandView 5 CD-ROM to produce a population estimate for each SARIN plume. There are 2 ways to do this.

- 1) use the “2000 Population Estimator”, or
- 2) use a MARPLOT Search function
 - a. select a plume,
 - b. do a search in MARPLOT for “things that are inside of or touched by” the “currently selected object” in the “Census Block Points” layer
 - c. MARPLOT will give you a list of Census Block Points, you will select the “Show All On Map” button
 - d. You should then see a group of the block points with each surrounded by the red squares indicating they are “selected”
 - e. After that, go to the “Sharing” menu, select “LandView” then “Get Info” and you should then see a page (in LandView) for one of the block points.
 - f. Select the “Summarize” button to see the numbers for all the block points added up.

ANSWERS

CAMEO answers

UN/NA # 2688 1-BROMO-3-CHLOROPROPANE

STCC # 4912271 KEROSENE

ALOHA answers

You cannot create a plume for SARIN as it has no established IDLH to use as a LOC.

You can go to CAMEO RIDS to find information about SARIN. You will see SARIN has no IDLH, TLV, or ERPG, but does have TEEL values. You will use each of the 3 TEELS as your LOC values to produce 3 plumes.

NOTE: These TEEL values are given as mg/m3!!!! You must change the units under the DISPLAY/OPTIONS menu from ppm to mg/m3!!!!

After setting the LOC to the different TEELs, my plumes measured:

TEEL-1	0.0075 mg/m ³	over 6 miles
TEEL-2	0.05 mg/m ³	4.1 miles
TEEL-3	0.6 mg/m ³	1.7 miles