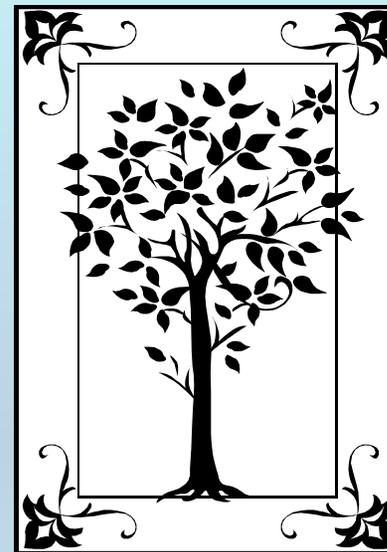# PROPERTY SELECTION (1 component): Tutorial (Va)

Guided Data Capture (GDC)

This tutorial decribes
PROPERTY SELECTION
for single (pure) components
with the Guided Data Capture (GDC) software.

NOTE:

The tutorials proceed sequentially to ease the descriptions; however, it is not necessary to enter *all* compounds before entering *all* samples, etc.

Compounds, samples, properties, etc., can be added or modified at any time.

Guided Data Capture - Thermophysical and Thermochemical Data

File Edit Tools Help

Reference | Compound | Sample | Mixture | Reaction | **Property** | Data Tables

- 2002 chi dik 0
  - toluene
    - Sample 1 (cm,98m%,nc;av,fd,mv;99.8m%,glc)
    - Sample 2 (cm,98m%,nc;dc,mv;99.6m%,glc)
  - benzene
    - Sample 1 (cm;av,fd;99.7m%,glc)
  - pentane
    - Sample 1 (cm,99m%,nc;;)
  - cyclohexane
    - Sample 1 (cm;fd;99.9m%,glc)
  - Compound X name
    - Sample 1 (sa;zr;99m%,hplc)
  - benzene + cyclohexane
  - benzene + pentane
  - benzene + toluene + Compound X name

2. CLICK *Property*

1. SELECT (i.e., CLICK once in the tree) a sample for which a property is to be entered.

NOTE: A DOUBLE CLICK will activate the sample-description form for editing.

Start | Microsoft... | Eudora - [... | Guided ... | N:\TRC ... | Va. PRO... | III. SAM... | 1:13 PM

1. SELECT a property group from the first menu.

2. SELECT a property from the second menu.

Property and experimental method for benzene

Help

Property group: SELECT PROPERTY GROUP

Property:

Units:

Method of measurement:

Experimental purpose:

Comment (optional)

NOTE: The complete list of **property groups** and associated **properties** is available on the HELP menu. (See the next slide.)

Property List available in *HELP*

Property Groups

Properties

Guided Data Capture

File   Edit   Bookmark   Options   Help

| Contents | Index | Back | Print | << | >> |

PROPERTY LIST

Code	Property	Unit
	Enthalpy & Internal energy of reaction	
H	Enthalpy of reaction	kJ/mol
UV	Internal energy at constant volume (J/g)	J/g
U	Internal energy of reaction (mole basis)	kJ/mol
	Transport properties and surface tension	
RSS	Speed of sound	m/s
NVC	Viscosity	Pa s
NVK	Kinematic viscosity	m2/s
IST	Surface tension liquid-gas	N/m
IT	Interfacial tension	N/m
NTC	Thermal conductivity	W/m/K
NFL	Fluidity	1/Pa/s
NDC	Self diffusion coefficient	10-9 m2/s
NTD	Thermal diffusivity	m2/s
NDC	Binary diffusion coefficient	10-9 m2/s
ND#	Trace diffusion coefficient of component #	10-9 m2/s
	Critical properties	
TC	Critical temperature	K
PC	Critical pressure	kPa
VDC	Critical density	kg/m3

Many more *Properties*

Property and experimental method for benzene

Help

Property group: Volumetric properties

Property: Specific density

Units: kg/m3

- kg/m3
- g/cm3
- lb/ft3
- ALL OTHER UNITS

Method of measurement:

Experimental purpose:

Comment (optional)

SELECT the units to be used for the numeric values from the pulldown menu.

Selection of *ALL OTHER UNITS* allows entry of a user-selected conversion factor.

Continue...

SELECT the *Method of Measurement* from the pulldown menu.

Property and experimental method for benzene

Help

Property group: Volumetric properties

Property: Specific density

Units: kg/m3

Method of measurement:

- Pycnometric method
- Buoyancy method
- Vibrating tube method
- Isochoric PVT measurement
- Other PVT measurement
- Burnett expansion technique
- Constant-volume piesometry
- Other experimental method (please, describe in "Comments")

Experimental purpose:

Comment (optional)

1-Variable data   2-Variable data

One data point   Cancel

NOTE: A breif (one sentence or a citation) description can be entered, if the available choices are not adequate.

SELECT the *Experimental Purpose* from the pulldown menu.

Continue with capture of numerical values...

END

The next step is
capture of numerical values

See the specific instructions for individual properties for help in this area.