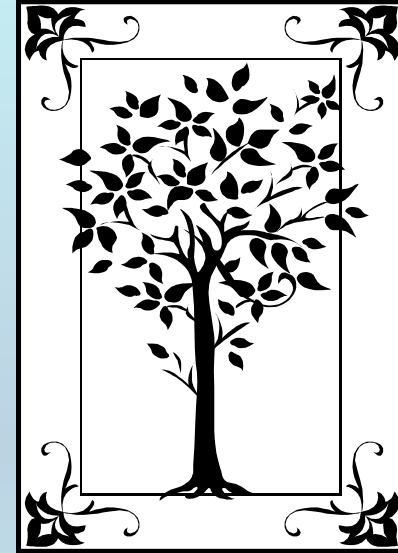


# PROPERTY SELECTION (2 & 3 components): Tutorial (Vb)

## Guided Data Capture (GDC)



This tutorial describes  
**PROPERTY SELECTION**  
**for mixtures (2 & 3 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,zi,99m%,glc)
    - benzene + cyclohexane**
    - benzene + pentane
    - benzene + toluene + Compound X name

**2. CLICK *Property***

**1. SELECT a *mixture* for which a property is to be entered.**

Start | Microsoft® Visu... | Eudora - [In] | N:\TRC DataEnt... | Microsoft Power... | Guided Data C... | 2:12 PM

1. SELECT a **property group** from the first menu.

2. SELECT a **property** from the second menu.

The screenshot shows a software window titled "Property and experimental method for benzene + cyclohexane". The window has a menu bar with "Help" highlighted in green. Below the menu bar, there are several input fields:

- "Property group:" dropdown menu with the text "SELECT PROPERTY GROUP" inside. A red arrow points to this menu.
- "Property:" dropdown menu. A blue arrow points to this menu.
- "Units:" dropdown menu.
- "Method of measurement:" dropdown menu.
- "Experimental purpose:" dropdown menu.
- "Comment (optional)" text field.

**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

Code	Property	Unit
H	Enthalpy of reaction	J/mol
Uv	Internal energy at constant volume (J/g)	J/g
U	Internal energy of reaction (mole basis)	kJ/mol
RSS	Speed of sound	m/s
NVC	Viscosity	Pa s
NVK	Kinematic viscosity	m <sup>2</sup> /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 <sup>-9</sup> m <sup>2</sup> /s
NTD	Thermal diffusivity	m <sup>2</sup> /s
NDC	Binary diffusion coefficient	10 <sup>-9</sup> m <sup>2</sup> /s
ND#	Trace diffusion coefficient of component #	10 <sup>-9</sup> m <sup>2</sup> /s
TC	Critical temperature	K
PC	Critical pressure	kPa
VDC	Critical density	kg/m <sup>3</sup>

Many more *Properties*

Property and experimental method for benzene + cyclohexane

Help

Property group: Transport properties

Property: Viscosity

Units: mPa\*s, Pa\*s, Poise, mPa\*s, 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.

The screenshot shows a dialog box titled "Property and experimental method for benzene + cyclohexane". It contains several fields: "Property group" (Transport properties), "Property" (Viscosity), and "Units" (mPa\*s). The "Method of measurement" field is highlighted with a red box and a red arrow pointing to it. The "Experimental purpose" field is also highlighted with a red box and contains a list of methods: "Capillary tube (Ostwald; Ubbelohde) method", "Cone and plate viscometry", "Concentric cylinders viscometry", "Falling or rolling sphere viscometry", "Oscillating disk viscometry", "Vibrating wire viscometry", and "Other experimental method (please, describe in 'Comments')". A blue arrow points to the "Other experimental method" option. Below the list is a "Comment (optional)" text box. At the bottom right are "OK" and "Cancel" buttons.

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

**1. SELECT** the *Experimental Purpose* from the pulldown menu.

The screenshot shows a dialog box titled "Property and experimental method for benzene + cyclohexane". It contains several fields and buttons:

- Property group: Transport properties
- Property: Viscosity
- Units: mPa\*s
- Method of measurement: Capillary tube (Ostwald; Ubbelohde) method
- Experimental purpose: A pulldown menu with three options: "Principal objective of the work", "Secondary purpose (by-product of other objective)", and "Determined for identification of a synthesized compound". This menu is highlighted with a red box.
- Comment (optional): A text input field.
- Buttons: OK and Cancel. The OK button is highlighted with a blue box.

A red arrow points from the first instruction box to the experimental purpose pulldown menu. A blue arrow points from the second instruction box to the OK button.

**2. CLICK OK** for 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.