INCLUDES:
CRC Handbook of Chemistry and Physics Online
The Combined Chemical Dictionary
Dictionary of Natural Products
And more

“A powerful site for all chemists”
— CHOICE
**In Handbook of Chemistry of Physics**

**Perform a Simple Search**

- Type in “Acetone”; press Search:

  - This will produce your search results; these are all the tables where the word “acetone” appears:

  - The search results are organized by section; the tables that are shown are also organized by section

  - Click on Acetone:
- If you click on Acetone itself, it will bring up all the existing information on Acetone across all the tables:

**Entry Name: Acetone**

- **Synonym:** 2-Propanone
- **CRC Number:** HBCP 21433
- **CAS Registry Number(s):** 67-64-1
- **Molecular Formula:** C₃H₆O
- **Formula:** (CH₃)₂CO
- **Molecular Weight:** 58.079
- **Melting Point:** -94.9(4) °C
- **Boiling Point:** 56.08(7) °C
- **Density:** ρ²₀ 0.7902 g cm⁻³
- **Refractive Index:** n²₀ 1.3588 (at 589 nm)
- **Autoignition Temperature:** 465 °C
- **Critical Pressure:** 4.7(1) MPa
- **Critical Temperature:** 508.1(2) K
• It will also tell you all other tables where Acetone can be found:

perform a chemical search

• Click on the little flask icon at the top right of the page

• A new screen appears: click to draw a query structure or a “Structure Search”
  o Grab the Benzene icon on the bottom (far right) and click it up to the drawing screen; draw another one next to it by clicking again:
• Then you can click to add that structure to the search query
• Once you do all of this, click Search
• The results are the search results for that chemical’s search:

![Chemical search results]

- You can then sort them; the arrows mean you can click and search for the information in that column
- We can also add different columns to our hit list
  - Go to the navigation bar on the left side, click on Add/Remove Columns in Results

![Add/Remove Columns in Results]

- Click this; what is shown are all the column you could add
- Choose “Melting Point”
You can use the arrows on the right to change the order in which those columns appear.
The column “Melting Point” will then appear.

- Export to hit list:
  - Select 6 rows by clicking in the little checkbox; see green check marks

Export icon is on the left, will say “Export the Data”
Click “Selected Rows”
- File Type: Excel file Formatted Text
- Tick the box “Auto column width”
- Export Data
- Spreadsheet opens in excel file, formatted correctly:

Perform a Complicated Chemical Search
- Go back to search chemicals screen; select “Clear Structure” to clear out the search
- Go to menu on the left, and go to “Add Properties”

  - Add molecular weight
  - You will see that it appears at the bottom
    - In molecular weight, select an operator value (+, =, <, >, etc.)
    - Select >= 300
    - Hit search

  - Add molecular weight as a column
- You can now sort molecular weight; go to column heading and click; it sorts the weight
- If you click on it again, it will sort by highest or lowest value

**Bookmarking Pages**

- Go back to the home screen
- Go to section 7 in the menu on the left navigation; “Biochemistry”
  - Open “Structures of Common Amino Acids”
  - Click “Bookmark Page” button on the top right
  - Stored bookmarks will appear in the bookmark icon at the top, next to archives button
  - You may be notified that you have to create a workspace in order to access your bookmarks
  - Click Sign In to your workspace:
- If you don’t have a workspace, click to create one:

- Once you are finished creating one, your bookmarks will then appear in the tab

**Graphing Search Results**

- Go back to your home screen
- Go to section 6 “Fluid Properties”
- Open “Critical Constants of Organic Compounds”
It will open the document; click on the dropdown next to “Go to Interactive Table”
- Select Critical Constants
- Again, you can sort the columns, export the data, etc.
- Sort by molecular weight; plot molecular weight against boiling point; Select first 8 rows:
  - Select graph numerical data in the menu on the left
  - Graph Type: Line graph
  - X-Axis: Molecular Weight
  - Y-Axis: Boiling Point (Tb/K means boiling point)
  - Check “Selected Rows”
• Generate Graph: