

VIRTUACHEM: GUIDE

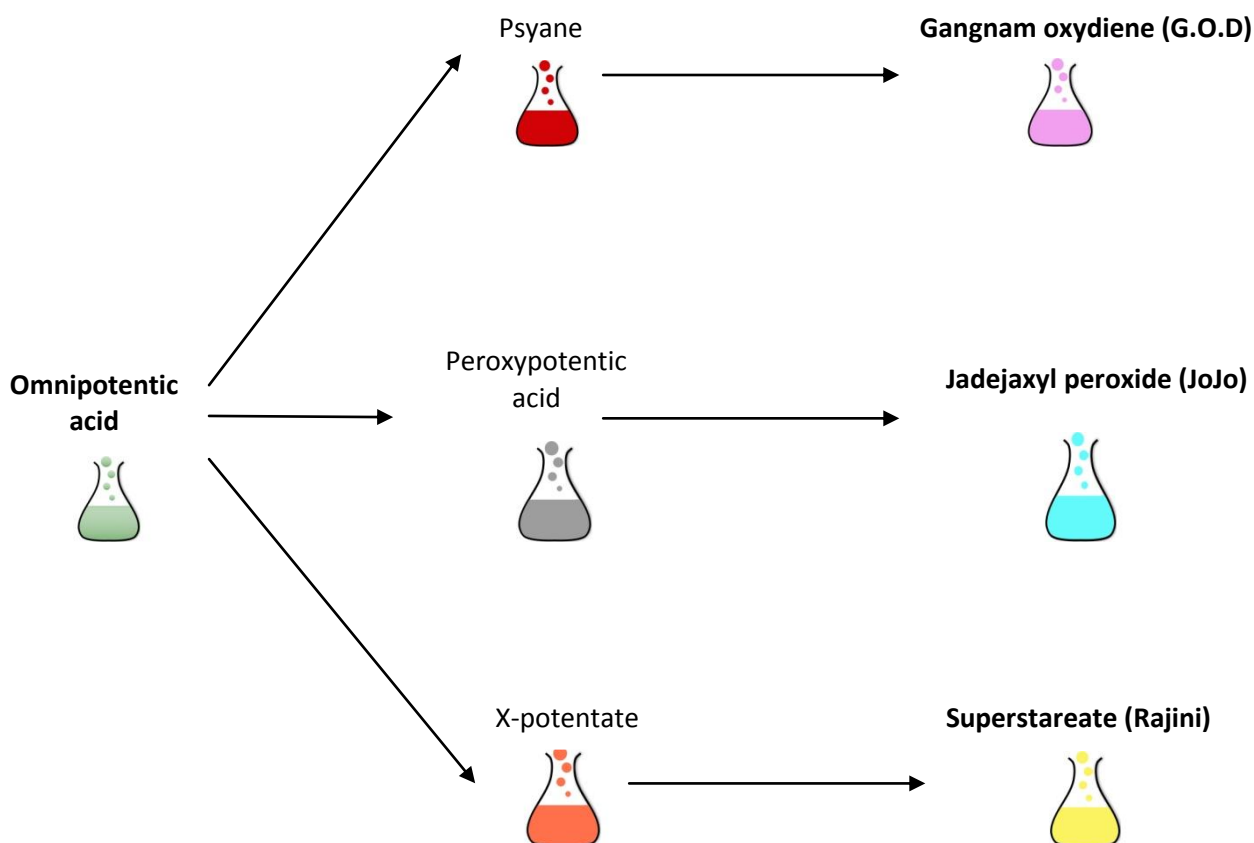
It is year 2050. And the chemists have just had their Eureka moment, discovering the three most wanted and reportedly eco-friendly chemicals of the age:

Gangnam oxydiene aka **G.O.D** : The Ultimate Rubber with everlasting elasticity

Jadejaxyl peroxide aka **JoJo** : Most promising rocket propellant with unbelievable thrust generation, a never-seen-before efficiency of 80%

Superstareate aka **Rajini** : The Ultra-cleaner

Presently, the only chemical known to produce all three of them following different reaction routes is **Omnipotent acid**. Research carried out at the laboratory scale has found the following precursors for the generation of each of the above mentioned chemicals.



With this news out, the chemical industries are up and ready to start mass production of the ultimate-trio. Each of these reactions needs special reactors which are available in the market.

You are to enter the market at this point of invention-boom and operate your firms according to the changing market scenario. Industry and Research go hand-in-hand, and thus you must keep an eye on the new developments in reactors time-to-time and understand their features for smart application. News feed will keep you updated on the current trend and give a calculated prediction on the future worth of each of the chemical. You are to read these pieces of information well and operate your productions accordingly.

The following descriptions will help you understand the elements of the game which in turn will give you a clearer picture of the game's format-

1. News Feed-

It is the source of information for the estimated performance of the market and also the evolutionary developments at your disposal for better production. Look out for Market analysis and R&D reactor upgrades from time to time.

2. Buying and Selling

Every chemical (7 of them) can sold to the market at any point. **You can buy ONLY Omnipotent acid in Level 1, and (Omnipotent acid, Pysane, Peroxypotent acid and X-potentate) in the subsequent levels.** Both selling and buying of chemicals are based on the market price (an equilibrium price settled between demand and supply) of the respective chemical.

3. Production

Chemicals are produced by selecting the reactant and the desired reactor. Each reactor has a **production rate** (time taken to produce a unit product) and **lifetime** (number of conversions that a particular reactor can process) associated with it. Multiple reactors of a kind (within a maximum limit of market availability) can be bought as per your wish. **NOTE-Reactors are non-tradable.**

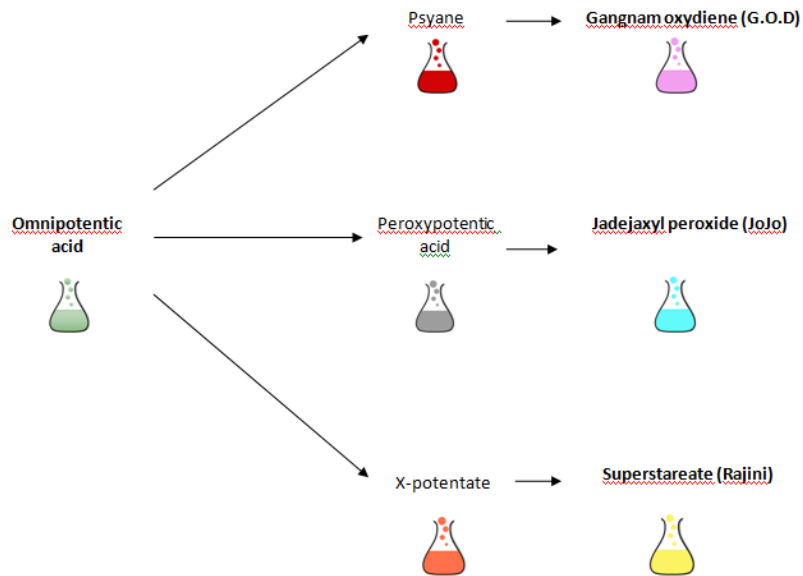
4. Game-Time

The game-link is available for 6 hours. Every participant can start the game at any point during this period ensuring a 3-hour game time

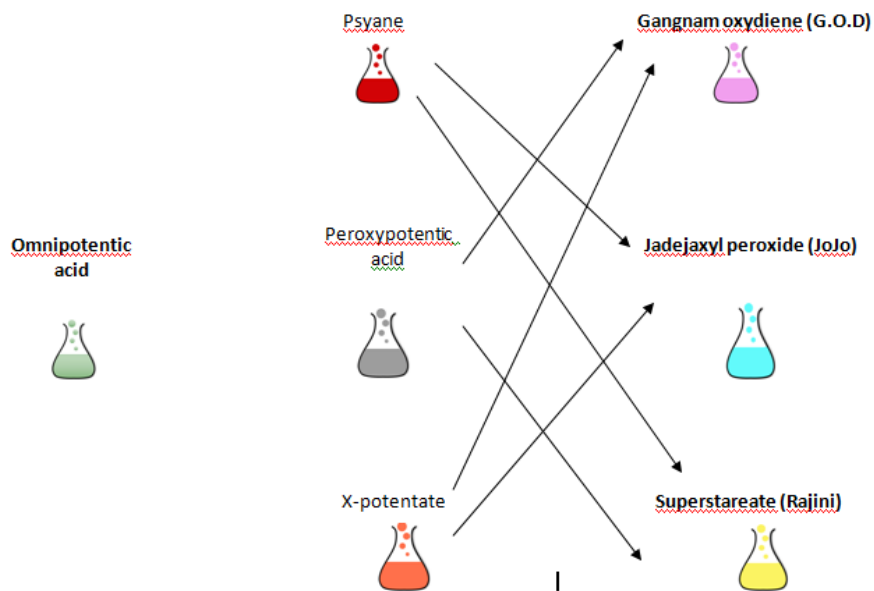
5. Upgrades

R&D works towards providing reactor upgrades. **These reactor upgrades happen over certain time periods (every 30 minutes) and get exhausted from the market once the next**

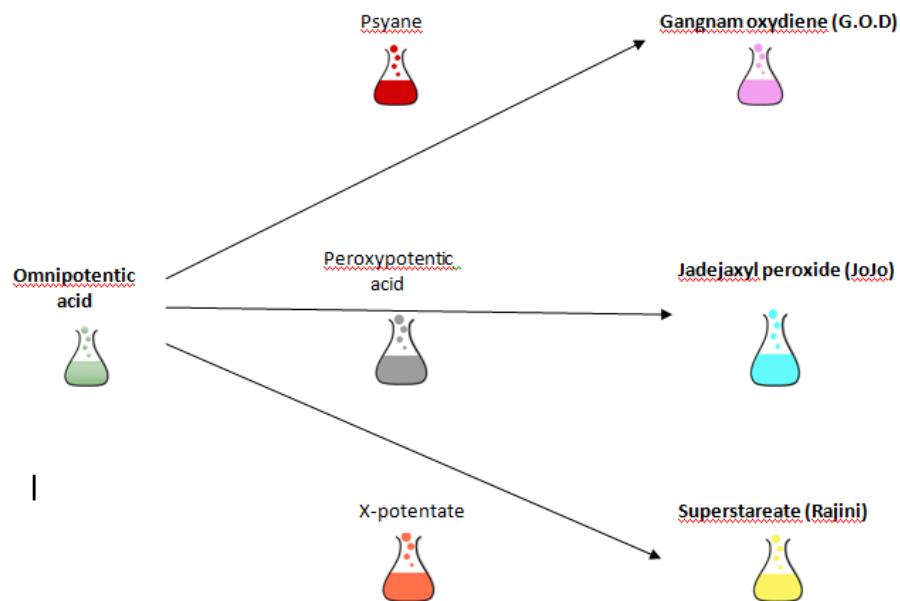
upgrade is around the corner. R&D eyes for certain upgrades and their functions have been illustrated in the following diagrams.



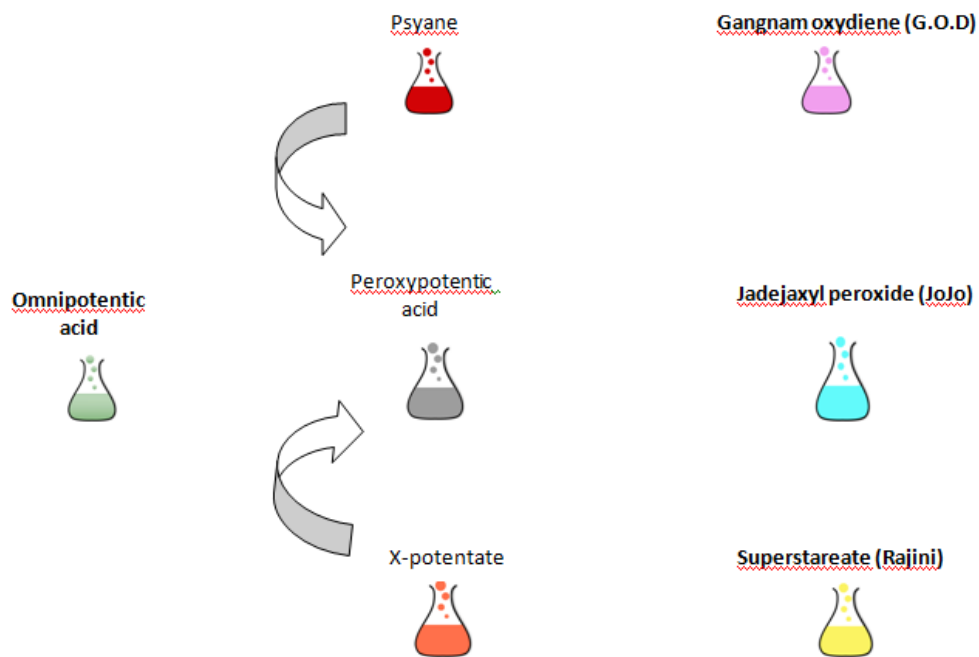
Level 1



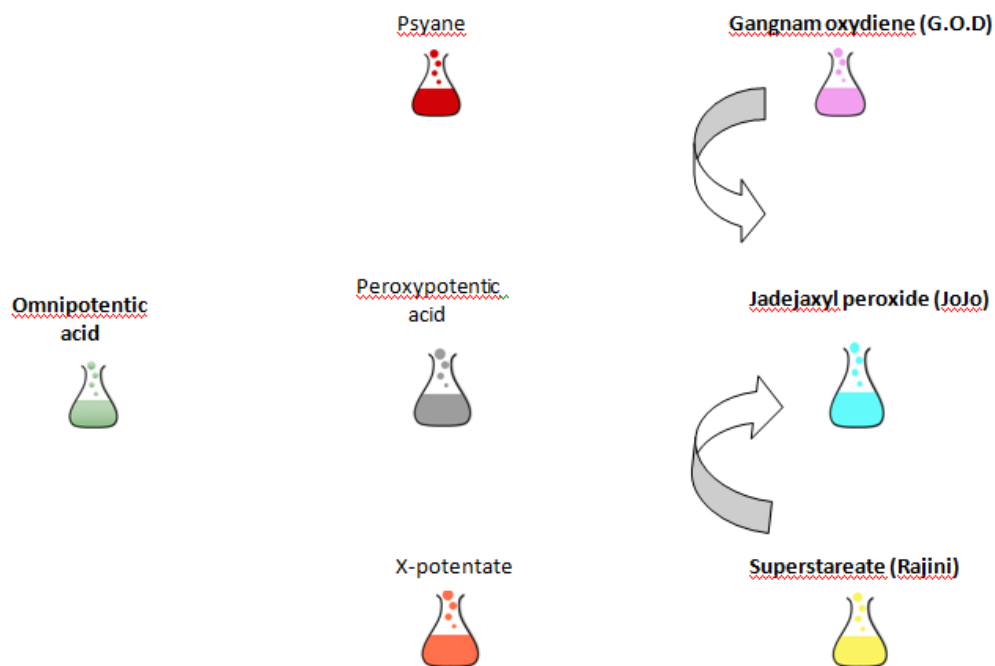
Level 2



Level 3

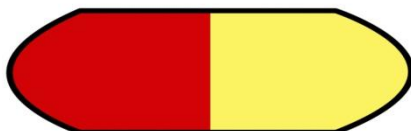


Level 4



Level 5

Reactors are represented using symbol throughout the game. The symbol looks like this-



REACTOR COLOUR CODE- The colour in the left section of the reactor represents Reactant and the colour on the right section represents Product produced on reacting. Please notice the colours of every chemical in use.

6. Using the interface

INTERFACE GUIDE

The interface is divided into several sections:

- Section 1:** A row of 16 colored pill icons representing different reactors. Each icon has a number below it, ranging from 0 to 15. A bracket labeled '1' groups these icons.
- Section 2:** A row of 16 'Sell' buttons, each with a number below it, ranging from 0 to 15. A bracket labeled '2' groups these buttons.
- Section 3:** A yellow sidebar on the left containing market information. It includes a 'Market' header, 'Buy Reactors and Reactants here.', 'Virtual Money in your account' (40000), a 'Choose Reactant' dropdown, 'Cost (in Rs)', 'Select quantity' dropdown, a 'Buy' button, a 'Choose Reactor' dropdown, 'Cost (in Rs)', and another 'Select Quantity' dropdown with a 'Buy' button. A bracket labeled '3' groups the top part of this sidebar.
- Section 4:** A bracket labeled '4' groups the 'Choose Reactant' dropdown and 'Cost (in Rs)' field.
- Section 5:** A bracket labeled '5' groups the 'Choose Reactor' dropdown and 'Cost (in Rs)' field.
- Section 6:** A large light blue central workspace area. A bracket labeled '6' points to this area.
- Section 7:** A yellow button labeled 'Click Here To Convert.' located at the bottom center of the workspace. An arrow labeled '7' points to this button.
- Section 8:** A red bar at the bottom of the workspace labeled 'NEWS UPDATES!!'. An arrow labeled '8' points to this bar.
- Section 9:** A yellow sidebar on the right containing a 'TIMER' (02:29:45) and the text 'Demo version.'.

Below the workspace, there is a list of news updates:

- A new product in the market called X-potentate has been launched
- Infinitely Elastic Rubber is in!
- Invention of a high-tech Rocket Fuel hits the market
- UltraCleaner is in the market!
- CHEA pvt ltd, a leading producer of Omnipotent acid go out for an indefinite HARTAL
- A slight increase in the wholesale price index indicative of a stronger market
- Recent improvements in space research increases demand for the super fuel IOIO thereby affecting the Peroxyntentonic acid's price

1. Represents all reactors available and the **number of conversions that are left to be done using a particular reactor**. Few of them will be enabled/disabled depending on their availability in the market (read levels).
2. Set of chemicals you have made/bought. **Only one chemical unit can be sold at a time**. Hence, the Sell button enables only one sale. Multiple selections will imply equivalent number of items you want to sell.
3. Money you have/made.
4. **Buy a reactant/chemical here**. The corresponding market price will be indicated. Make a purchase by selecting the desired quantity and then clicking on the buy button. The counter will go up in section 2 once the purchase has been made.
5. **Buy a reactor here**. The corresponding market price will be indicated. Make a purchase by selecting the desired quantity and then clicking on the buy button. **The counter will go up in units of the reactor's lifetime**(max. number of conversions it can make) in section 1 once the purchase has been made.

6. Once you click on a reactant and a reactor, they will appear **HERE**. Ensure you are selecting (by clicking on it) the right reactor/reactant alone, otherwise you will lose a unit and the money.
7. Use this button **to do the conversion** and obtain the product.
8. **Newsfeed**. Forecasts the market scenario.

ULTIMATE OBJECTIVE- Make the most profit!