

1. <b>glycerol</b>	an alcohol, also called glycerine, which is a colourless, viscous liquid with a sweet taste; its fatty-acid esters constitute natural fats and oils, from which glycerol is obtained as a by-product of soap making; glycerol is a triol (an alkane with three -OH groups)	14. <b>Solvay process</b>	a process for the manufacture of sodium carbonate; salt, ammonia, carbon dioxide and water react to give precipitated sodium bicarbonate (sodium hydrogen carbonate), which on heating gives sodium carbonate and carbon dioxide for recycling
2. <b>hydrophilic</b>	a substance that has a high affinity for water; easily dissolves in water	15. <b>surfactant</b>	a material able to act on another substance, changing its surface tension; the fatty acid ion in soap lowers the surface tension of water by disrupting hydrogen bonds between water molecules
3. <b>hydrophobic</b>	a substance that has a low affinity for water; does not easily dissolve in water and may repel it	16. <b>tallow</b>	a substance obtained by melting the harder and less fusible kinds of animal fat; it is used for making candles and soap, and for greasing machinery
4. <b>Le Chatelier's principle</b>	if a system is at equilibrium and it is disturbed by changing some conditions, then the system will adjust itself so as to minimise this disturbance	17. <b>trona</b>	a grey or yellowish-white glassy or translucent crystalline material which tastes alkaline and is soluble in water; it effervesces with acids and produces water on heating in a closed tube
5. <b>micelle</b>	a cluster of molecules; the long hydrocarbon chains of natural soaps are insoluble in water; they cluster together, attracted to each other by dispersion forces	18. <b>vulcanisation</b>	the process of enhancing the durability of rubber by heating it with sulfur or sulfur compounds; vulcanisation involves the creation of sulfur bridges between the long-chain rubber polymer molecules
6. <b>naphtha</b>	a volatile mixture of liquid hydrocarbons used as a solvent and obtained by distilling coal tar or shale oil or from refining and cracking petroleum; it has a boiling range of 80 to 180 degrees Celsius		
7. <b>nitrocellulose (cellulose nitrate)</b>	a mixture of highly inflammable nitrate esters of cellulose, made by nitrating cotton or wood pulp; it is used in making celluloid		
8. <b>oleum</b>	also known as fuming sulfuric acid; it is 100% sulfuric acid containing dissolved SO <sub>3</sub>		
9. <b>plastic</b>	a material that can be molded into desired shapes		
10. <b>reversible reaction</b>	a reaction where the forward and reverse reactions occur at the same time		
11. <b>saponification</b>	the reaction between an ester and hydroxide ion to form an alcohol and carboxylate ion; it is the hydrolysis of an ester under alkaline conditions; it refers to the alkaline hydrolysis of fats and oils, converting them into soap		
12. <b>shellac</b>	a brown flaky resin secreted by the lac insect; naturally thermoplastic, it is used with fillers to make molded articles and as an ingredient in paints, lacquers and polishers		
13. <b>smelting</b>	a process of extracting a metal from its ore by heating the ore in a blast furnace; sulfide ores are generally roasted to convert them to oxides before smelting		