## 12 Chemistry 8 Chemical Monitoring and Management Part

## Quizlet

1 Study online at quizlet.com/\_24hx4f

1. adsorption	the process by which chemicals and other particles are attracted to and held by a solid surface	10. coordinate covalent bond	a covalent bond that has formed when one atom provides both electrons to form the shared bonding pair
2. allotrope	one of several structural forms of the same element in the same state; for example, diamond, graphite and fullerenes are allotropes	11. cryptosporidium	a micro-organism occurring in the gut of warm-blooded animals; its cysts are more resistant to disinfection than are bacteria or viruses
3. anaerobic decomposition	decomposition without oxygen; many bacteria can carry out respiration without using oxygen; decomposition under these conditions produces gases and other wastes that would not be present in aerobic decomposition	12. equilibrium constant	is K; when equilibrium is reached the concentration of reactants and products has no tendency to change; the concentrations of the products are written in the numerator and the concentrations of the reactants are
4. aquifer	an underground rock formation through which ground water can easily percolate; sandstone, gravel beds and		written in the denominator; the larger value of K, the more the reactants react together to form product
5. chemiluminescence	jointed limestone make good aquifers luminescence caused by a chemical reaction, usually oxidation; the molecules are excited to a high energy level and emit light as they return to the ground state	13. eutrophication	the process by which lakes and streams become enriched by dissolved nutrients, such as phosphates and nitrates found in fertilisers; this can result in an increased growth of algae in these waterways and a corresponding drop in dissolved oxygen; this condition can be harmful to other life
6. chlorofluorocarbon	a compound containing carbon, chlorine and fluorine		forms living in these waters
7. coagulation	the process of adding coagulants (chemicals or a mixture of chemicals) to cause particles that are slow to settle or are non-settling to settle out more readily; the coagulant reacts with the particles in the water, forming larger particles called flocs that settle out rapidly	14. <b>flame test</b>	a qualitative test for cations where a clean platinum wire mounted in a glass holder is dipped into the sample to be tested and then held in a non-luminous Bunsen flame; many cations burn with distinctive colour
		15. flocculation	the gentle mixing of chemicals with water containing suspended particles to trap colloidal particles such as mud; the
8. coliform	a type of bacteria found in raw water; coliforms are used as a microbiological indicator for the possible presence of other disease-producing organisms arising from faecal contamination; they are measured in colony forming units (CFU); a CFU is the number of bacterial cells, or clumps of cells, that can be developed into a colony when grown under laboratory conditions; coliforms are killed by chlorine		chemicals join tiny particles of dirt, micro- organisms, and fine suspended matter so that they can be more easily filtered out; the larger particles formed can be filtered
		16. <b>flocs</b>	larger particles formed during coagulation; they settle out rapidly and can be effectively removed by passing water through a filter; the process is controlled so that the coagulant chemicals are removed along with the contaminants
9. complete combustion	when a hydrocarbon burns in a plentiful oxygen supply and the combustion products are carbon dioxide and water	17. haber process	the chemical combination of hydrogen and nitrogen gases in the presence of a catalyst, and under high temperatures and pressures, to form ammonia

18. haloalkane	a derivative of an alkane where one or more hydrogen atoms have been replaced by a halogen such as fluorine, chlorine, bromine or iodine
19. halogen	a highly reactive non-metal in group VII of the periodic table; they include the elements fluorine, chlorine, bromine, iodine and astatine