Edexcel iGCSE Chemistry Checklist

Section C16: **Manufacturing Chemicals**

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| ***I can*** | ☺ | 😐 | ☹ |
| understand that nitrogen from air, and hydrogen from natural gas or the cracking of hydrocarbons, are used in the manufacture of ammonia |  |  |  |
| describe the manufacture of ammonia by the Haber process, including the essential conditions: i a temperature of about 450°C ii a pressure of about 200 atmospheres iii an iron catalyst |  |  |  |
| understand how the cooling of the reaction mixture liquefies the ammonia produced and allows the unused hydrogen and nitrogen to be recirculated |  |  |  |
| describe the use of ammonia in the manufacture of nitric acid and fertilisers |  |  |  |
| **recall the raw materials used in the manufacture of sulfuric acid** |  |  |  |
| **describe the manufacture of sulfuric acid by the contact process, including the essential conditions: i a temperature of about 450°C ii a pressure of about 2 atmospheres iii a vanadium(V) oxide catalyst** |  |  |  |
| **describe the use of sulfuric acid in the manufacture of detergents, fertilisers and paints** |  |  |  |
| **describe the manufacture of sodium hydroxide and chlorine by the electrolysis of concentrated sodium chloride solution (brine) in a diaphragm cell** |  |  |  |
| **write ionic half-equations for the reactions at the electrodes in the diaphragm cell** |  |  |  |
| **describe important uses of sodium hydroxide, including the manufacture of bleach, paper and soap; and of chlorine, including sterilising water supplies and in the manufacture of bleach and hydrochloric acid.** |  |  |  |
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