Claims

1. A particulate composition for use in removing halogenated compounds from a hydrocarbon-containing process stream, said composition comprising:
   (a) a metal bicarbonate and optionally a metal carbonate, wherein the said metal carbonate is selected from an alkali metal carbonate or an alkaline earth metal carbonate, wherein the said bicarbonate is selected from an alkali metal bicarbonate or an alkaline earth metal bicarbonate, and
   (b) a compound of aluminium selected from an alumina or a hydrated alumina,
   characterised in that the weight ratio of metal carbonate plus metal bicarbonate compounds to said compound of aluminium is at least 3 : 1, wherein the amount of metal carbonate in the total amount of metal carbonate plus metal bicarbonate is 0 – 75% by weight.

2. A particulate composition as claimed in claim 1, wherein the weight ratio of metal carbonate plus metal bicarbonate compounds to said compound of aluminium is at least 4 : 1.

3. A particulate composition as claimed in claim 1 or claim 2, wherein the metal carbonate is selected from potassium carbonate, calcium carbonate or sodium carbonate.

4. A particulate composition as claimed in any one of claims 1 to 3, wherein the metal bicarbonate is selected from potassium bicarbonate or sodium bicarbonate.

5. A particulate composition as claimed in any one of the preceding claims, wherein the composition contains a mixture of a metal bicarbonate and a metal carbonate.

6. A particulate composition as claimed in any one of the preceding claims, wherein the amount of metal carbonate in the total amount of metal carbonate plus metal bicarbonate is 20 – 60% by weight.

7. A particulate composition as claimed in any one of the preceding claims further comprising a binder.

8. A method of forming a particulate composition as claimed in any one of the preceding claims comprising the steps of mixing together
   a. metal carbonate and/or metal bicarbonate compounds,
   b. a compound of aluminium and
   c. optionally a binder,
   in the presence of water and forming the mixture into particles.

9. A method as claimed in claim 8, further comprising the step of drying the formed particles at less than 120 °C.

10. A method as claimed in claim 9, wherein the drying is carried out a temperature in the range 25 - 90 °C.

11. A method as claimed in any one of claims 8 to 10, wherein the mixture is formed into particles by granulation, tabletting or extrusion.

12. A process for removing halogenated compounds from a hydrocarbon-containing process stream using a particulate composition as claimed in any one of claims 1 to 7.