Claims

1. A particulate composition for use in removing halogenated compounds from a hydrocarbon-containing process stream, said composition comprising a metal carbonate selected from an alkali metal carbonate or an alkaline earth metal carbonate and a metal bicarbonate selected from an alkali metal bicarbonate or an alkaline earth metal bicarbonate and 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 or as prepared by the method of any one of claims 8 to 11.