Claims

1. A liquid formulation suitable for a group B adenovirus, comprising:
   a) a group B adenovirus, such as replication competent group B adenovirus,
   b) 15 to 25% v/v glycerol, for example 16, 17, 18, 19, 20, 21% v/v glycerol; and
   c) 0.1 to 1.5% v/v ethanol, for example 0.2-1%, such as 1% v/v ethanol;
   d) a buffer,
   wherein the pH of the formulation is in the range 8.0 to 9.6, for example 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 9.0, 9.1, 9.2, 9.3, 9,4 or 9.5.
2. The formulation according to claim 1, wherein the formulation is for by intravenous administration.
3. The formulation according to claim 2, wherein the formulation is for administration by slow injection.
4. The formulation according to claim 2, wherein the formulation is for administration by infusion.
5. The formulation according to any one of claims 1 to 4 further comprising a surfactant, for example a nonionic surfactant.
6. The formulation according to claim 5, further comprising polysorbate, for example polysorbate 20, 40, 60, or 80, such as 0.05-0.15% polysorbate 20, 40, 60, or 80.
7. The formulation according to claim 6, wherein the formulation comprises polysorbate 80, for example 0.05-0.15% polysorbate 80, such as 0.115% polysorbate 80.
8. The formulation according to any one of claim 1 to 7, further comprising methionine, for example 0.01-0.3 mM, for example 0.01 to 0.3, such as 0.25 mM methionine.
9. The formulation according to any one of claims 1 to 8, further comprising arginine, for example 5 to 20 mM, such as 15 mM arginine.
10. The formulation according to any one of claims 1 to 9, wherein the buffers is selected from meglumine, glycine (such as Gly-NaCl), TRIS and combinations of two or more of the same.
11. The formulation according to claim 10, wherein the formulation comprises meglumine buffer.
12. The formulation according to any one of claims 1 to 11, wherein the formulation does not comprise HEPES buffer.
13. The formulation according to any one of claims 1 to 12, wherein the formulation comprises:
   a) 15 - 20% v/v glycerol;
   b) 1-1.5% v/v ethanol;
   c) 0.1 – 0.2% v/v polysorbate 80;
   d) 0.2 – 0.3mM methionine;
   e) 10 – 20 mM arginine; and
   f) a buffer, such as meglumine;
   wherein the pH of the formulation is at a pH in the range 8.0 to 9.6, such as pH 8.