Sulphur trioxide is produced by reacting sulphur dioxide with oxygen.

 $2SO_2 + O_2 \rightleftharpoons 2SO_3$

This reaction is exothermic. There are two statements below.

- 1 The atom economy of the reaction producing sulphur trioxide is 100%
- 2 An increase in temperature will increase the equilibrium yield of sulphur trioxide Which of these statements are correct?