Question 24 (4 marks)

In the margarine industry, alkenes are often hydrogenated to convert unsaturated oils into solid fats that have a greater proportion of saturated molecules.

(a) Using ethene as an example, write an equation for this reaction and state the type of reaction this represents.

\[ \text{Addition} \]

\[ \text{Hydration} \]

(b) Describe a test that could be used to confirm that all the ethene has been converted.

\[ \text{White precipitate forms...} \]

\[ \text{No change...all ethene...There.} \]