Chemguide - answers

ALDEHYDES AND KETONES: SIMPLE ADDITION REACTIONS

- 1. a) Hydrogen cyanide is an extremely poisonous gas.
 - b) A solution of sodium or potassium cyanide in water with a little dilute sulphuric acid added to give a pH of 4 to 5.
 - c) (i) OH |
 CH₃CHCN
 2-hydroxypropanenitrile

2-hydroxy-2-methylpropanenitrile

2. a) A white crystalline precipitate.

b)
$$CH_3$$
 $C=O$
 CH_3
 CH_3
 CH_3
 CH_3
 CH_3
 CH_3

c) Shake the impure aldehyde with sodium hydrogensulphite solution to produce the crystals. Filter and wash the crystals, and then add a dilute acid or alkali to regenerate the aldehyde.