

16. A chemist attempts to identify a pungent, colourless liquid by conducting several experiments. The results are shown in the table below:

Experiment	Observations
add acidified potassium dichromate solution	orange solution turns green
a lighted taper held above the liquid	flame and heat produced
add sodium metal	metal reacts and colourless, odourless gas evolved
add acidified, concentrated acetic (ethanoic) acid	fruity odour produced

Using this information, identify the functional group present in the liquid.

- (a) ketone
- (b) alcohol
- (c) amine
- (d) carboxylic acid