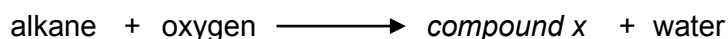


- 1 Some alkanes can be burned and used as fuels. A way to represent the complete combustion of an alkane fuel is shown by the following word equation.

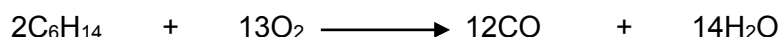


- 1 (a) (i) Name compound x.

[1 mark]

Carbon dioxide [1]

- 1 (a) (ii) Hexane is an example of an alkane that can be burned as a fuel. One reaction of hexane burning in air is shown below.



Name the carbon compound produced in this reaction.

[1 mark]

Carbon monoxide [1]

- 1 (a) (iii) Suggest a reason for this carbon compound being produced.

[1 mark]

Burned in low oxygen conditions or only partial or incomplete combustion. [1]

- 1 (b) The table shows the elements that are present in a sample of crude oil. These elements can also be present in the fractions produced from this sample crude oil.

Element	% of each element
Carbon	85
	14
Sulfur	0.5
Nitrogen	0.5

- 1 (b) (i) Name the missing element.

[1 mark]

Hydrogen [1]

- 1 (b) (ii) When fractions from crude oil are burned in air, new compounds are made. These compounds can sometimes cause pollution.

Describe how burning fractions from crude oil can cause pollution. Use the table to help you.

In your answer you should name the compounds produced.

[5 marks]

.....

Produces carbon dioxide [1]

which causes the green house affect or global warming [1]

Produces sulfur dioxide [1]

which causes acid rain [1]

Produces nitrogen oxides or nitrogen dioxide or NO_x [1]

1 (c) Burning fuels can sometimes cause the release of small solid particles (particulates).

It has been suggested that this can lead to global dimming.

What is global dimming?

[1 mark]

Reduction of light or light being blocked or less light getting to the Earth [1]

(Total 10 marks)

End