

$$\text{Mass of Carbon} = \frac{12}{44} \times 1.261$$

$$= 0.344$$

$$\text{Mass of Oxygen} = \frac{16}{18} \times 0.516$$

$$= 0.459$$

$$\text{Mass of Hydrogen} = \frac{2}{18} \times 0.516$$

$$= 0.057$$

$$0.459 + \frac{32}{44} \times 1.261$$

$$= 1.375$$

C	H
$\frac{0.344}{12} = 0.029$	$\frac{0.057}{1} = 0.057$
$\frac{0.029}{0.029} = 1$	$\frac{0.057}{0.029} = 2$

~~$\text{CH}_2\text{O}$~~

O
$\frac{1.375}{16} = 0.086$
$\frac{0.086}{0.029} = 2.999$

Empirical formula =  $\text{CH}_2\text{O}_3$

$$(12) + (1 \times 2) + (16) = 30$$

$$12 + (1 \times 2) + (16 \times 3) = 62$$

$$\frac{86}{30} = 2.86$$

$$\frac{86}{62} = 1.39$$

