Internal standard (dimethyl terephthalate) = 22.7 mg
Sample = 12.1 mg
Molar ratio = [1/1]/[18.19/4] = 0.22
%P of standard = 1
MW of sample = 457.50
MW of standard = 194.19
Wt% = 97%

\[ Molar\ ratio = \frac{I_{cpd}}{nH_{cpd}} \times \frac{I_{std}}{nH_{std}} \]

\[ \text{wt\%} = \frac{mg_{std} \times MW_{cpd} \times \text{molar ratio} \times P_{std}}{mg_{cpd} \times MW_{std}} \times 100 \]