



Internal Standard (Trimethoxybenzene): 42.0 mg

Sample: 59.4 mg

Molar ratio = $[1.98/2]/[3.63/3] = 0.818$

wt% = 81.8%

Molar ratio = $[1.97/2]/[3.63/3] = 0.814$

wt% = 81.4%

Averaged wt% = 81.6 %

%P of standard = 1

MW of sample = 285.1894 g/mol

MW of standard = 168.1920 g/mol

$$\text{Molar ratio} = [I_{\text{sample}}/nH_{\text{sample}}] / [I_{\text{std}}/nH_{\text{std}}]$$

Purity of sample =

$$[(mg_{\text{std}} \times MW_{\text{sample}} \times \text{molar ratio} \times P_{\text{std}}) / (mg_{\text{sample}} \times MW_{\text{std}})] \times 100$$

= 98.1 %