How to calculate effective magnetic moment???

The volume susceptibility is;

$$\chi_v = \frac{n\mu_{eff}^2}{3k_BT} \tag{1}$$

Hence, mass susceptibility;

$$\chi_m = \frac{\chi_v}{\rho} = \frac{n\mu_{eff}^2}{3\rho k_BT} \tag{2}$$

n is the number of atoms per unit volume and is equal to $\frac{N_A\,\rho}{M}$. M is molecular weight.

Therefore,

$$\chi_m = \frac{N_A\mu_{eff}^2}{3MK_BT} = \frac{C}{T}\frac{emu}{g.Oe}\ (cgs) \tag{3}$$

This is Curie law, with the Curie constant given by,

$$C = \frac{N_A\mu_{eff}^2}{3MK_B} \tag{4}$$

The effective magnetic moment per formula unit can be calculated by using experimental value of C as follows;

$$\mu_{eff} = (\frac{3MK_BC}{N_A})^{1/2} = [\frac{(3)(M\ g/mole)(1.38\times10^{-16}\ erg/K)(C\ emu.K/gm.Oe)}{6.02\times10^{23}\ molecules/mole}]^{1/2}(cgs) \tag{5}$$

$$\mu_{eff} = 2.62\times10^{-20}\ \sqrt{MC} \quad emu\ per\ molecule\ (cgs) \tag{6}$$

The effective moment can be expressed in terms of Bohr magneton μ_B,

$$\mu_{eff} = \frac{2.62\times10^{-20}\ \sqrt{MC}}{0.927\times10^{-20}} = 2.83\sqrt{MC} \quad \mu_B\ per\ molecule \tag{7}$$

Source: Introduction to Magnetic Materials, B.D. Cullity, C.D. Graham, 2^{nd} Edition