The EPR spectra of Cu$^{2+}$ in zinc saccharin crystalline powder and single crystals have been recorded at room temperature. The angular variation of the spectra indicates the substitution of the host Zn$^{2+}$ with Cu$^{2+}$. Two magnetically inequivalent sites for Cu$^{2+}$ have been observed. The spectra were fitted with a rhombic spin-Hamiltonian, and the ground state wave function of the complex has been constructed.

**Key words:** EPR; Zinc Saccharin; Cu$^{2+}$; Ground State Wave Function.