Appendices
**Determination of LD$_{50}$**

LD$_{50}$ was determined according to the procedures described by Sun (1963) and calculated using the formula

\[
\log \text{LD}_{50} = \log X_m - \log i \frac{\sum P - P_n}{\sum P - 0.5}
\]

where $X_m$ was the highest dose tested and “i” was the common ratio (taking larger dose as the numerator in the ratio). “P” was the total mortality, “$P_m$” and “$P_n$” were the mortalities of the highest and lowest dose groups, respectively. $P_m$ should not be less than 80% and $P_n$ should not exceed 20% (Jing-Hui and Marsh, 1988).