Evaluation of Carcinogenicity and Mutagenicity

Carcinogenicity: For each positive chemical in the CPDB, results are included on carcinogenic potency (by species) and target site (by sex-species). A target site is listed for a chemical in a sex-species group if the published author's opinion about any experiment indicated that tumors were induced by the compound at that site. Hence, if a chemical lists two target sties in a sex-species group, the results may represent two or more experiments. If some test sin a sex-species group are negative while others are positive, the table reports only the positive target sites. Results for all experiments are in the plot below the summary table. We use the author's opinion to classify positivity because it often takes into account more information than statistical significance alone, such as historical control rates for particular strains and sites, survival and latency, or dose response. Generally, this designation by author's opinion corresponds well with the results of statistical tests for the significance of the dose-response effect (two-tailed $p<0.01$). NCI/NTP target sites are included if the evaluation in the Technical Report was "carcinogenic" or "clear" or "some" evidence of carcinogenic activity; NCI evaluations of "associated" or NTP evaluations of "equivocal" are not considered positive.

If all experimental results in the CDPB are negative in a sex-species group, "–" appears. If the CPDB has no experiments in the sex-species group, "NT" appears. An "I" indicates that the only experiment in the group in the CPDB was an NCI or NTP test, and that NCI or NTP evaluated the experiment as inadequate. A "B" indicates that results from the general literature were only reported for males and females combined.

Mutagenicity: A chemical is classified as mutagenic in the *Salmonella* assay if it was evaluated as either "mutagenic" or "weakly mutagenic" by Zeiger (Zeiger in *Handbook of Carcinogenic Potency and Genotoxicity Databases*, Gold and Zeiger, eds., CRC Press, 1997, pp. 687-729; Zeiger, pers. comm.) or as "positive" by the Gene-Tox Program (Kier et al., *Mutat. Res.* 168: 69-240, 1986; Auletta, pers. comm.). Other chemicals evaluated for mutagenicity by these two sources are reported as negative.