Bacterial Mutagenicity Studies Study Numbers: G14001B, G14002, G14003, G14004, G14005, G14011B, G14012, G14013B, G14027, G15004 Readme File for Supporting Data Files

Introduction

As part of the <u>West Virginia Chemical Spill research program</u>, NTP conducted studies to evaluate chemicals spilled into the Elk River. Summaries of study findings were reported in <u>June</u> <u>2015</u> and <u>July 2015</u> updates.

Data Files Available for Download

A set of supporting data files for the bacteria mutagenicity studies is available on this <u>NTP data</u> <u>Web page</u>.

For each of the spill constituents, an Excel data file shows the results of mutagenicity testing in three bacterial strains: *Salmonella* Typhimurium strains TA100 and TA98, and *Escherichia coli* strain WP2 *uvrA*⁻ pKM101. Each strain was tested without exogenous metabolic activation ("no activation") and with 10% induced male Sprague Dawley rat liver S9 mix ("10% RLI"). Typically, two independent trials were conducted for each activation condition.

All tests were conducted using a preincubation protocol, and trial data for each dose level are presented as Mean ± Standard Error of the Mean (SEM). Doses tested are presented in units of ug/plate. The "0" dose is the vehicle control, and each trial also included an appropriate positive control known to induce a significant increase in revertant (mutant) colonies.

The result for each individual trial is presented in parentheses under the description of the activation condition. The overall *Study Result* is presented with the *Study Information* above the data tables.

Although there is a footnote referencing Syrian hamster liver S9, only Sprague Dawley rat liver S9 was used in these studies.

The data Web page also provides the following methods files: (1) a "Chemical Methods" file that covers chemical procurement, analysis, and formulation for all chemicals used in the research program and (2) a "Materials and Methods" file that lists what was studied and describes the methods for each study.

Files can be downloaded individually or as a complete set for the study by using the *Download All* button. If you need assistance with the data files, please contact CEBS-Support@mail.nih.gov.

Access to Data Online

All data are available in the <u>Chemical Effects in Biological Systems (CEBS) database</u>. Access to the data is available by searching CEBS using the study numbers.

Data from additional studies conducted on the chemicals are accessible by searching CEBS using the Chemical Abstracts Service Registry Number (CASRN) or chemical name (see Table 1).

CASRN	Chemical Name	Study Number
34885-03-5	4-Methylcyclohexanemethanol	G14001B
CRUDEMCHM*	Crude 4-Methycyclohexanemethanol	G14013B
770-35-4	Propylene glycol phenyl ether	G14011B
51730-94-0	Dipropylene glycol phenyl ether	G14012
DOWANOLDIPPH*	Dowanol DiPPh glycol ether	G15004
51181-40-9	Methyl 4-methylcyclohexanecarboxylate	G14003
98955-27-2	4-(Methoxymethyl)cyclohexanemethanol	G14002
2105-40-0	2-Methylcyclohexanemethanol	G14027
94-60-0	Dimethyl 1,4-cyclohexanedicarboxylate	G14005
105-08-8	1,4-Cyclohexanedimethanol	G14004

Table 1. Elk River Spill Chemicals Tested for Bacterial Mutagenicity

*These are CEBS identification numbers, because these chemicals do not have CASRNs.

Suggested Citation

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http://tools.niehs.nih.gov/cebs3/wvspill/index.cfm?action=main.dataReview&bin_id=790 [accessed INSERT DATE ACCESSED].