SUPPORT DOCUMENT FOR THE ADDITION OF CHEMICALS FROM FEDERAL INSECTICIDE, FUNGICIDE, RODENTICIDE ACT (FIFRA) ACTIVE INGREDIENTS TO EPCRA SECTION 313

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BACKGROUND

The provisions of Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) allow chemicals to be added to or deleted from the Section 313 list as a result of petitions initiated by private citizens, industries, state governors, or by Agency initiative. As specified in Section 313(d)(2) of the statute, chemicals may be added to the list if they are known to cause, or can be anticipated to cause, adverse health and/or environmental effects. On May 25, 1993, the EPA Administrator announced that the Agency is in the process of developing a rulemaking to add chemicals to the Toxic Release Inventory (TRI) by the end of the year.

Under this Work Assignment, ICF/Clement is preparing chemical summaries containing health and environmental effects data from readily available secondary sources including IRIS, Inhalation RfC documents, Health Advisories, NTP studies, ATSDR Toxicological Profiles, Shepard's Catalogue of Teratogenic Agents, and O'Donoghue's Neurotoxicity of Industrial and Commercial Chemicals. Data on EPA rated Group A and B carcinogens were retrieved from IRIS. For chemicals with no EPA carcinogenicity rating and chemicals that are rated EPA group C, D, or E, emphasis is placed on the chronic, subchronic, or acute toxicity, developmental/reproductive toxicity, neurotoxicity and/or target organ effects resulting in systemic toxicity. Occasionally, genotoxicity data are presented to support the carcinogenicity of a compound. All effects are summarized from secondary sources. On-line searches of a limited number of databases, including CCRIS, HSDB, IRIS, RTECS, NPIRS, MERCK INDEX, CHEMFATI, EPA/OPP'S ENVIRONMENTAL FATE, ENVIRONMENTAL EFFECTS and TOX ONE-LINERS, QSAR and AQUIRE, were also performed to supplement the information from the secondary sources. Additional data from EPA/OPP's files, including Cancer and Developmental Peer Reviews, Phase IV Reviews, List A Registration Standards and Reference Dose documents, were made available for review by OPP.

Each chemical summary presents information on the physical/chemical properties, environmental fate, and adverse health and environmental effects of the subject chemicals, along with NOEL and LOEL values, in an effort to focus decision making on those key health and environmental effects that are most likely to support the EPCRA Section 313 finding of reasonably anticipated, significant, and irreversible toxicity. As specified in Section 313 (d)(2) of the statute, a chemical may be added to the list if any one of the following criteria are met: "(A) The chemical is known to cause or can reasonably be anticipated to cause significant adverse, acute human health effects...; (B) the chemical is known to cause or can reasonably be anticipated to cause in humans--(i) cancer or teratogenic effects, or (ii) irreversible effects, (iii) reproductive
dysfunctions, (iv) neurological disorders, (v) heritable genetic mutations, or (vi) other chronic health effects ....; (c) the chemical is known to cause or can reasonably be anticipated to cause, because of its toxicity, toxicity and persistence, or toxicity and bioaccumulation, a significant adverse effect on the environment."

Based on readily available information for each chemical, except for acute toxicity, all effects were compared to the Section 313 criteria outlined in the Draft Hazard Assessment Guidelines For Listing Chemicals On The Toxic Release Inventory (EPA 1992). For assessing acute toxicity data for each chemical, the EPCRA Section 302 criteria developed for listing chemicals on the extremely Hazardous Substances List (i.e., Acute inhalation LC\textsubscript{50}: 0.5 mg/L for exposures less than or equal to 8 hours; oral LD\textsubscript{50}: 25 mg/kg/day; dermal LD\textsubscript{50}: 50 mg/kg/day) were applied. These criteria were applied only if the key effect of concern was acute and no chronic toxicity data existed or the other available data were inadequate. A summary of the health and environmental hazard recommendations reached for each pesticide follows.
CHEMICAL SUMMARY

Chemical Name: CHLORSULFURON
[2-Chloro-N-][(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]benzenesulfonamide]

CAS No.: 64902-72-3

Key Effects: Developmental, reproductive

Developmental: In a rabbit developmental study, an increased incidence of fetal resorptions was observed at the LOEL of 75 mg/kg/day. The NOEL was 25 mg/kg/day (route and duration not reported) (24).

Reproductive: In a 3-generation rat reproduction study, a decrease in fertility index was observed at 125 mg/kg/day (LOEL). The NOEL was 25 mg/kg/day (24).
CITED REFERENCES


12. USEPA/ODW, Health Advisory for Hexazinone Pages 1-17 (August 1988)


15. USEPA/OPP: Pesticide Fact Sheet: Oxydemeton-Methyl (October, 1987)

17. USEPA/OPP: Memorandum from Timothy F. McMahon to PM tram 74 entitled "(SENCOR Technical): Review of a Rabbit Teratology Study Submitted by the Registrant" dated (January 24, 1991)


25. USEPA/OPP/HED: *Data Validation; Amdro.* (November 19, 1980)


28. USEPA/OPP/HED: Memorandum from John E. Whalan to John H. Lee entitled "Submission of the Toxicology Branch Chapter of the Registration Standard for Sodium Omadine" dated (December 13, 1984)


30. USEPA/OPP/HED: Memorandum from Judith W. Hauswirth to Henry
Jacoby, RD entitled "Abreviated Peer Review on Fenarimol", dated (September 5, 1986):8pp


32. USEPA/OPP/HED: Memorandum from Pamela M. Hurley to George LaRocca entitled "Cyhaloghrin (Grenade). Application for Experimental Use Permit and Temporary Tolerance to Support Use on Cattle." dated (May 5, 1986)

33. USEPA/OPP/HED: Memorandum from David G. Van Ormer to Arturo E. Castillo RD entitled "T₃ and T₄ Toxicity Study and Ames Test" dated (August 26, 1986)


35. USEPA/OPP/HED: Memorandum from John A. Quest to Robert Taylor, RD entitled "Peer Review of Assure" dated (February 6, 1987):11pp

36. USEPA/OPP/HED: Memorandum from David G. Van Ormer to Walter C. Francis RD entitled "Addenda to Subchronic Studies" dated (February 23, 1987)


39. USEPA/OPP/HED: Memorandum from John A. Quest to George LaRocca RD entitled "Peer Review of Amdro" dated (April 22, 1987)

40. USEPA/OPP/HED: Memorandum from John A. Quest entitled "Second Peer Review Meeting on Assure" dated (September 9, 1987):6pp


43. USEPA/OPP/HED: Memorandum from William Dykstra to Richard F. Mountfort, entitled "Antor - Diethatyl Ethyl - 104-Week Dietary Toxicity Study in Dogs - EPA Registration No. 45639-54" dated (March 14, 1988)
44. USEPA/OPP/HED. Memorandum from Judith W. Hauswirth to Robert Taylor/Clare Grubbs, RD entitled "Peer Review of Atrazine", dated (June 6, 1988):7pp


46. USEPA/OPP/HED. Memorandum from Marion P. Copley to Robert Taylor/Clare Grubbs, RD and Jude Andreasen, RD entitled "Third Peer Review of Atrazine", dated (November 22, 1988):5pp

47. USEPA/OPP/HED: Memorandum from Esther Rinde to George LaRocca RD entitled "Peer Review of Permethrin" dated (April 7, 1989)


49. USEPA/OPP/HED: Data Evaluation Record; Fenoxycarb, (May 8, 1989)


51. USEPA/OPP/HED: Memorandum from Krystyna K. Locke to Geraldine Werdig and Barbara Briscoe entitled "(Pebulate): Evaluation of 1-year Dog Feeding Study and 2-Generation Rat Reproduction Study" dated (June 12, 1989)

52. USEPA/OPP/HED: Memorandum from Edwin R. Budd to George LaRocca RD entitled "Second Peer Review of Permethrin -- Consideration of Recommendations by the Scientific Advisory Panel Regarding the Oncogenic Classification of Permethrin" dated (August 16, 1989)

53. USEPA/OPP/HED: Memorandum from Irving Mauer to John H. Lee and James E. Wilson entitled "DCDIC (Disodium cyanodithioimidocarbonate) - Toxicity Data Submitted in Response to Data Call-In Notice for Antimicrobials Dated March 4, 1987" dated (August 24, 1989)

54. USEPA/OPP/HED: Memorandum from George Z. Ghali to Phil Hutton, RD entitled "Peer Review of Tetramethrin" dated (November 12, 1989)

56. USEPA/OPP/HED: Memorandum from John A. Quest to Richard T. Mountfort RD entitled "Peer Review of Beacon" dated (March 29, 1990)

57. USEPA/OPP/HED: Memorandum from John A. Quest to Robert Taylor, RD entitled "2nd Peer Review Meeting to Determine Risk Quantification Method for Oryzali" dated (September 13, 1990):3pp

58. USEPA/OPP/HED: Memorandum from Stephen C. Dapson to Reto Engler entitled "Review of two rat subchronic feeding studies and a dog subchronic feeding study with Desmedipham" dated (October 15, 1990)

59. USEPA/OPP/HED: Memorandum from John H.S. Chen and William F. Sette to Joanne I. Miller DR entitled "Peer Review of Norflurazon" dated (November 2, 1990)

60. USEPA/OPP/HED: Memorandum from Geoprge Z. Ghali to Susan Lewis RD entitled "Second Peer Review of Pentachlorophenol (PCP); Consideration of the Agency Science Advisory Board Position on issues relating to the Health Effects of Pentachlorophenol" dated (January 3, 1991)

61. USEPA/OPP/HED: Memorandum from George LaRocca to William F. Sette HED entitled "Second Peer Review of Amdro" dated (March 28, 1991)

62. USEPA/OPP/HED. Memorandum from Gary J. Burin, to Jay Ellenberger, SRRD entitled "Developmental and Reproductive Toxicity Peer Review of Metam sodium" dated (October 24, 1991):11pp

63. USEPA/OPP/HED: Memorandum from Linnea J. Hansen to Christine Rice and Thomas Luminello Jr. entitled "Review of Rodent (rat) and non-rodent (rabbit) Developmental Toxicity studies" dated (October 29, 1991)

64. USEPA/OPP/HED: Data Evaluation Record: Methyl isothiocyanate, (January 8, 1992)

64. USEPA/OPP/HED: Memorandum from Byron T. Backus and Esther Rinde to George LaRocca RD entitled "Third Carcinogenicity Peer Review of Bifenthrin" dated (April 29, 1992):13pp

65. USEPA/OPP/HED: Final Carcinogenicity Peer Review Document for Pendimethalin. (July 2, 1992) Prepared under Contract Work Assignment Number 04433-174-00 by Clement International Corporation

66. USEPA/OPP/HED: Data Evaluation Record: Hexazinone, (July 7, 1992)

67. USEPA/OPP/HED. Memorandum from Linnea Hansen and Esther Rinde to Walter Waldrop, SRRD entitled "Carcinogenicity Peer Review of
Nitrapyrin" dated (July 16, 1992): 33pp


70. USEPA/OPP/HED. Memorandum from Esther Rinde and William Dykstra to Joanne Miller, RD entitled "Peer Review of Hexazinone" dated (August 12, 1992): 25pp

71. USEPA/OPP/HED. Memorandum from Linda L. Taylor, and Esther Rinde to Robert Taylor and Jay Ellenberger, entitled "Carcinogenicity Peer Review of Molinate" dated (August 14, 1992)

72. USEPA/OPP/HED. Memorandum from Gary J. Burin and David Anderson to Kathy Pierce SRRD entitled "Developmental and Reproductive Toxicity Peer Review of Oxydemeton-Methyl" dated (September 29, 1992)

73. USEPA/OPP/HED. Memorandum from Linda L. Taylor and Esther Rinde to Robert Taylor and Mario Fiol RD entitled "Second Carcinogenicity Peer Review of Bromacil" dated (January 13, 1993): 10pp

74. USEPA/OPP/HED. Mémorandum from Roger Gardner to George LaRocca RD and Jay Ellenberger SRRD entitled "Developmental and Reproductive Toxicity Peer Review of Avermectin", dated (May 20, 1993): 31pp

75. USEPA/OPP/HED. Memorandum from Whang Phang and Esther Rinde to Joseph Tavano and Kathy Depukat entitled "Carcinogenicity Peer Review of MKG® Repellent 326", dated (June 4, 1993)

76. USEPA/OPP/RD: Memorandum from John Doherty to Product Manager entitled "Request for tolerance for pesticide methazole and its metabolites in or on potatoes at 0.1 ppm." dated (February 28, 1978)

77. USEPA/OPP/RD: Memorandum from Mary L. Waller to Bill Miller entitled "Data Review for Acute Oral Toxicity Testing" dated (October 18, 1989)


79. USEPA/Region 4: Series of Personal Communications to Roy P. Clark, U.S. Environmental Protection Agency, Atlanta, Georgia. dated (March 23, 1978 to July 17, 1978)

80. USEPA/OPP/HED. Memorandum from John Doherty to PM Team No. 23, RD entitled "PP 8F2119 and EPA Reg. No. 352-378, Hexazinone Tolerance of 0.2 ppm on Sugarcane" dated (June 17, 1980)