BIBLIOGRAPHY

Abu Zeid, M., Hori, H., Nagasawa, H., Uto, Y., and Inayama, S. 2000. Studies on methyl 2-nitroimidazole-1-acetohydroxamate (KIN-804) 2: Effect of certain antioxidant enzyme systems in mice bearing Ehlrich ascites carcinoma. *Biol. Pharm. Bull.*, **23:** 195-198.

Agency for Toxic Substances and Disease Registry (ATSDR/TP-88/16), 1989. Toxicological Profile for Heptachlor/Heptachlor Epoxide, *Technical Report,* Atlanta, GA. Pp. 6-58.

Agency for Toxic Substances and Diseases Registry (ATSDR)/US Public Health Service, 1994. Toxicological Profile for 4,4'-DDT; 4,4'-DDE; 4, 4'-DDD; (Update), *Technical Report,* ATSDR. Atlanta, GA.

Aldrich, F. D. and Holmes, J. H. 1969. Acute chlordane intoxication in a child: Case report with toxicological data. *Arch. Environ. Health.* **19:** 129-132.

Aleksandrowicz, D. R., 1997. Endosulfan poisoning and chronic brain syndrome. *Arch. Toxicol.* **43**(1): 65-68.

Alldrick, A. J. and Rowland, I. R. 1985. Activation of the food mutagens IQ and MeIQ by hepatic S9 fractions derived from various species. *Muta. Res.* **144:** 59-62.

American Conference of Governmental Industrial Hygienists (ACGIH), 2000. Threshold limit values for chemical substances and physical agents and biological exposure indices. *Technical Report,* Cincinnati, OH.

American Conference on Governmental Industrial Hygienists, 1986. *Inc. documentation of the threshold limit values and Biological Exposure Indices,* Fifth Edition. Pp. 6-57. Publications Office, Cincinnati, OH.

Ames, B. N. 1971. The detection of chemical mutagens with enteric bacteria in: *Chemical Mutagens, Principles and Methods for their Detection* Vol.1, A. Hollander (Ed.), Plenum, New York. pp. 267-282.

Ames, B. N. and Whitfield Jr., H. J. 1966. Frame-shift mutagenesis in Salmonella, Cold Spring Harbor Symp., *Quant. Biol.* **23:** 221-225.

Ames, B. N., Duston, W. E., Yamaski, E. and Lee, F. D. 1973a. Carcinogens are mutagens: a simple test combining liver homogenates for activation of bacteria for detection. *Proc. Nat. Acad. Sci.* USA. **70:** 2281-2285.

Ames, B. N., Lee, F. D. and Duston, W. E. 1973b. An improved bacteria tests system for the detection and classification of mutagens and carcinogens, *Proc. Nat. Acad. Sci.* USA, **70:** 782-786.

Ames, B. N., McCann J. and Yamaski, E. 1975. Methods for detecting carcinogens and mutagens with the salmonella/mammalian-microsome mutagenicity test. *Mutation Res.*, **31:** 347-364.

Annis, R. and Darsheimer, W. T. 1975. *Blood Sampling Techniques in Small Laboratory Animals.* Technicon Industrial Systems, Tarrytown, New York, USA.

Anon. 1989. *Toxicity Data Hand Book.* Vol: III, Pesticide-A. Industrial Toxicology Research Centre (Council of Scientific and Industrial Research), Lucknow, India.

Anon. 2003. *Toxicological Profile for Endosulfan*, US Dept of Health and Human Services, Public Health Services, ATSDR- Web site - http://www.atsdr.cdc.gov/toxprofiles/tp41-c4.pdf.

Arrebola FJ, Martínez Vidal JL, Fernández-Gutiérrez A. 2001. Analysis of endosulfan and its metabolites in human serum using gas chromatography-tandem mass spectrometry. *J Chromatogr Sci.*, 39(5):177-182.

Arnold, S. F., Klotz, D. M., Collins, B. M., Vonier, P. M., Guilette, L. J. and McLachlan, J. A., 1996. Synergistic activation of estrogen receptor with combinations of environmental chemicals. *Science*, **272:** 1489-1492.

Ashby, J., LeFevre, P. A., Odum, J., Harris, C. A., Routledge, E. J., and Sumpter, J. P. 1997. Synergy between synthetic estrogens? *Nature*, **385:** Pp. 494.

Augustin-Beckers, P. W. M., Hornsby, A. G. and Wauchope, R. D., 1994. SCS/ARS/CES Pesticide properties database for environmental decision making II. Additional Compounds. *Rev. Environ. Contam. Toxicol.* **137:** 1-82.

Ballschmitter, K., Schophan, I. and Tölg, G. 1967. The metabolization of endosulfan in insects and mammals. *Paper presented to the VI. International Plant Protection Congress,* Vienna.

Beall, M. L. Jr. 1976. Persistence of Aerially Applied Hexachlorobenzene on Grass and Soil. *J. Environ. Qual.* **5**(4): 367-369.

Bennett, D. 1975. The T locus of the mouse. *Cell,* **6:** 441-454.

Bernardelli, B. C. and Gennari, M. C. 1987. Death caused by ingestion of endosulfan. *J. Forensic Sci.* **32**(4): 1109-1112.

BFR, 2002. *Strategies for genotoxicity Testing of Substances: An Overview,* http://www.bfr.bund.de/cms/media.php/94.

Bhunya, S. P. and Behera, B. C. 1987. Relative genotoxicity of trichloroacetic acid as revealed by different cytogenetic assays: bone marrow chromosome aberration, micronucleus and sperm head abnormality in the mouse. *Mutat. Res.,* **188:** 215-221.

Bidleman, T. F., Zaranski, M. T. and Walla, M. D. 1988. Toxaphene: Usage, aerial transport and deposition, Chronic Effects of Toxic Contaminants in Large Lakes. *In Toxic Contamination in Large Lakes. Vol. I:* Pp. 6-19. N. W. Schmidtke, (Ed). Lewis Publishers Inc., Chelsea, MI.

Blanco-Coronado, J. L., Repetto, M., Geviestal, R. J., Vicente, J. R., Yelamos, F. and Lardelli, A. 1992. Acute intoxication by Endosulfan. *J. Clinical Toxicology,* **30**(4): 575-583.

Boereboom, F.T., Van-Dik, A., Van Zoonen, P., and Meulenbelt, J. 1998. Non-accidental endosulfan intoxication: A case report with toxicokinetic calculations and tissue concentrations. *J. Clinical Toxicology,* **36**(4): 345-352.

Boller, K. and Schimd, W. 1970. Chemical mutagenesis in mammals. The bone marrow of the Chinese Hamster as *in vivo* test system. *Haematolysis Che Befunde nach Behandlung mit Trenimon Hungenetik*, **11**: 35-54.

Brandt, V. *et al.* 2001. Exposure to endosulfan in farmers: Two case studies. *American Journal of Industrial Medicine* **39:** 643-649.

Bremmer, J. N. 1997a. Indosulfan: Substance technical (code: Hoe002671 00 ZD99 0008) Testing for primary dermal irritation in the rabbit. Unpublished Hoechst Marion Roussel preclinical development study No. 96.0837. *Hoechst document A58442.* Submitted to WHO by Hoechst Schering AgrEvo GmbH, Frankfurt-am-Main, Germany.

Bremmer, J. N. 1997b. Endosulfan: Substance technical (code: Hoe002671 00 ZD99 0008) Testing for primary eye irritation in the rabbit. Unpublished Hoechst Marion Roussel preclinical development study No.96.0838. *Hoechst document A58443.* Submitted to WHO by Hoechst Schering Agr Evo GmbH, Frankfurt-am-Main, Germany.

Bruce, W.R. and Heddle, J. A. 1979. The mutagenic activity of 61 agents as determined by the micronucleus, *Salmonella* and sperm abnormality assay. *Can. J. Genet. Cytol.*, **23:** 319-

Brunning, K.L. and Kintz, B. L. 1977. *Computational handbook of statistics.* Scott Foresman and Company, USA.

Budavari, S. (Ed.) 1996. *The Merck Index: an encyclopedia of chemicals, drugs, and biologicals,* 12th Ed. Rahway, Merck and Co., Inc., New Jersey, USA.

Buhler, D. R. 1989. Transport, accumulation, and disappearance of pesticides, in: *Chemistry, Biochemistry, and Toxicology of Pesticides.* J. M. Witt, Ed. Oregon State University Extension Service, Corvallis, Oregon. Pp. 6-14.

Cable, G. C. and Doherty, S. 1999. Acute carbamate and organochlorine toxicity causing convulsions in an agricultural pilot: a case report. *Avia. Space Environ. Med.* **70**(1): 68 -72.

Canada National Research Council. 1975. Endosulfan: its effects on environmental quality NRC Associate Committee on Scientific Criteria for Environmental Quality, *Report No. 11*, Subcommittee on Related Compounds, Subcommittee *Report No. 3*, No. NRCC 14098 of the Environmental Secretariat.

Chin, B. H., Heilman, R. D., Bachand, R. T., Chernenko, G. and Barrowman, J. 1980. Absorption and biliary excretion of chlorothalonil and its metabolites in the rat. *Toxicol. Lett.*, **5**(1): Pp. 150.

Choy, W. N., McGregor, J. T., Shelby, M. D., and Maronpot, R. R. 1985. Induction of micronuclei by benzene in B6C3F1 mice: Retrospective analysis of peripheral smears from the NTP carcinogenesis bioassay, *Muta. Res.*, **143:** 55-59.

Chugn, S. N., Dhawan, R., Agrawal, N. and Mahojan, S. K. 1998. Endosulfan poisoning in Northern India: a report of 18 cases. *Int. J. Clin. Pharma. Ther.* **36**(9): 474 -477.

Cifone, M.A., Myhr, B., Eiche, A. and Bolcsfoldi, G. 1987. Effect of pH shifts on the mutant frequency at the thymidine kinase locus in mouse lymphoma L5178Y TK $^{+/-}$ cells. *Mutation Research,* **189:** 39-46.

Clements, J. 2000. The mouse Lymphoma Assay. *Mutation Research*, **455:** 97-110.

Committee on Mutagenecity of Chemicals in Food (COM) 2000. Guidance on a Strategy for testing of Chemicals for Mutagenicity, Consumer Products and the Environment. http://www.doh.dov.uk/com/guidance.pdf-assesed.

Crop Care, combined Issue pp.72 (July –Sept, 2004 & Oct- Dec. 2004).

David, J. B., Vincent, F. S., Herbert, S. R., Verne, A. R. and Robert, S. S. 1980. An evaluation of the *Eschrichia coli* WP2 and WP2-uvrA reverse mutation assay. *Muta. Res.*, **76:** 169-190.

Dean, B. J. and Danford, N. 1984. Assays for the detection of chemically induced chromosome damage in cultured mammalian cells. In S. Venitt and J. M. Parry (Eds.), *Mutagenicity Testing.* IRL Press, Oxford and Washington DC. Pp. 187-232.

Deema, P., Thompson, E. and Ware, G. W. 1966. Metabolism, storage and excretion of 14C-endosulfan in the mouse. *J. Eco. Ento.* **59:** 546-550.

Devi, K. R., and P.P. Reddy (1985) Bisazir induced cytogenetic damage and sperm head abnormalities in mice, IRCS Med. Sci., **13**, 1245-1246.

Dikshith, T. S. S. and Datta, K. K. 1978. Lack of cytogenetic effects in male rats. *Bull. Environ. Contam. Toxicol.* **20:** 826-833.

Dinham, B. 1993. *The Pesticide Hazard.* Zed Books, London.

Dorough, M. W., Huhtanen. K., Marshall, T. C., Bryant, H. E. 1978. Fate of endosulfan in rats and toxicological considerations of apolar metabolites. *Pesticide Biochemistry Physiology*, **8:** 241-252.

Doyle, R. 1984. *Dalapon Information Sheet.* Food and Drug Administration (FDA), Washington DC. Pp. 6-40.

Dubois, M., Pfohl-Leszkowicz, A. and De Waziers, I. 1996. Selective induction of CYP3A family by endosulfan and DNA-adduct formation in different hepatic and hepatoma cells. *Environmental Toxicology and Pharmacology*, **1**(4): 249-256.

Dunkel, V. C., Zeiger, E., Brusick, D., McCoy, E., McGregor, D., Mortelmans, K. *et al.* 1984. Reproducibility of microbial mutagenicity assay: I. Test with *Salmonella*

typhimurium and *E. Coli* using a standard protocol. *Environ. Mutagen.* **6**(2): 251-254.

Dunkel, V. C., Zeiger, E., Brusick, D., McCoy, E., McGregor, D., Mortelmans, K. *et al.* 1985. Reproducibility of microbial mutagenicity assay: II Test with *Salmonella typhimurium* and *E.Coli* using a standard protocol, *Environ. Mutagen.* **7**(5): 241-248.

Ecobichon, D. J. Toxic effects of pesticides. In: *Casarett and Doull's Toxicology,* 4th Edition. 1991. M. O. Amdur, J. Doull and C. D. Klaassen, (Eds.) Pergamon Press, New York, Pp. 6-61.

Edwards, I. R., Ferry, D. G. and Temple, W. A. 1991. Fungicides and related compounds. In: *Handbook of Pesticide Toxicology.* W. J. Hayes Jr. and E. R. Laws Jr. (Eds.) Academic Press, New York. Pp. 6-8.

Ellman, G. L., Courtney, K. D., Andres, V. Jr. and Featherstone, R. M. 1961. A new and rapid colorimetric determination of acetylcholinesterase activity. *Biochem. Pharmacology*, **7**: 89-95.

European Commission, Directorate-General, Health & Consumer Protection, Directorate D – Food and Veterinary Office, 1999. Final report: *Assessing the controls on pesticide residues in fish coming from Lake Victoria.*

Eva, R. 1992. Use of External Metabolising Systems in the Neutral Red assay, *9th Scandinavian Cell Toxicology Congress,* Atlanta, **20:** 262-265.

Evans, H. H., Menel, J., Horng, M. F., Ricanati, M., Sanchez, C. and Hozier, J. 1986. Locus specificity in the mutability of L5178Y mouse lymphoma cells: the role of multilocus lesions. *Proc. Nat. Acad. Sci.* USA. **83:** 4379-4383.

Extension Toxicology Network (EXTOXNET), 1996. Pesticide Information Profiles: Endosulfan, http://ace.orst.edu/cgi-bin/mfs/01/pips/endosulf.mfs.

Fahrig, R. 1974. In: *Comparative mutagenicity studies with pesticides.* R. Montesano, and L. Tomatis, (Ed.) Proceedings of a Workshop on Approaches to Assess the Significance of Experimental Chemical Carcinogenesis Data for Man. Brussels, Belgium.

FMC - Food Machinery and Chemical Corporation. 1959a. Thiodan technical: Repeated oral administration - dogs. *Final Report.* Conducted for Food Machinery and Chemical Corporation, Niagara Chemical Division. Hazleton Laboratories, Inc., Falls Church, VA.

FMC - Food Machinery and Chemical Corporation. 1959b. Thiodan technical: Two-year chronic feeding study - rats. *Final Report.* Conducted for Food Machinery and Chemical Corporation, Niagara Chemical Division. Hazleton Laboratories, Inc., Falls Church, VA.

FMC - Food Machinery and Chemical Corporation. 1967. Two year chronic oral toxicity of thiodan technical - Beagle dogs. Conducted for Food Machinery and Chemical Corporation. Industrial Bio-Test Laboratories, Inc., Northbrook, IL.

Food and Drug Administration (FDA), 2004. *Guidance for Industry Recommended Approaches to Integration of Genetic Toxicology Study Results.* Draft Guidance. Genotoxicity. Centre for Drug Evaluation and Research.

Food and Drug Administration, 2000. Office of Food Additive Safety, *Toxicological Principles for the Safety Assesment of Food Ingredients, Redbook.* US-FDA, http://vm.cfsan.fda.gov/~redbook/red-toca.html.

Forejt, J. 1976. Spermatogenic failure of translocation heterogygotes affected by H-2 Inbred gene in mouse. *Nature,* **260:** 143-145.

Galloway, S. M., Aardema, M. J., Ishidate, M. Jr., Ivett, J. L., Kirkland, D. J., Morita, T., *et al.* 1994. Report from working group on *in vitro* tests for chromosomal aberrations. *Mutation Research,* **312:** 241-261.

Galloway, S. M., Armstrong, M. J., Ruben, C. S., Colman, B., Brown, Canon, C. *et al.* 1987. Chromosomal aberration and sister chromatid exchanges in Chienese Hamster Ovary cells; Evaluation of 108 chemicals. *Environ. Mol. Mutagen.* **10:** 1-109.

Galloway, S. M., Bloom, A. D., Resnick, M., Margolin, B. H., Nakamura, F., Archer, P. and Gieger, E. 1985, Development of a standard protocol for *in vitro* cytogenetic testing with Chienese Hamster Ovary cells; Comparison of results for 22 compounds in two laboratories, *Environ. Mutagen.,* **7:** 1-51.

Garabrant, D. H., Held, J., Langholz, B., Peters, J. M. and Mack, T. M. 1992. DDT and related compounds and risk of pancreatic cancer, *J. Nat. Cancer. Inst.*, **84:** 764-771.

Garner, R. C., Miller, E. C. and Miller, J. A. 1972. Liver microsomal metabolism of aflatoxin B1 to a reactive derivative toxic to *Salmonella typhimurium* TA1530. *Cancer Res.,* **32:** 2058-2066.

Gasiewicz, T. A. 1991. Nitro compounds and related phenolic pesticides. In: *Handbook of Pesticide Toxicology.* W. J. Hayes Jr. and E. R. Laws Jr. (Eds.) Academic Press, New York, 6-70

Gollapudi, B. and McFadden, L. G. 1995. Sample size for the estimation of polychromatic to normochromatic erythrocyte ratio in the bone marrow micronucleus test. *Mutation Res.,* **347:** 97-99.

Gorbach, S.G., Christ, O. E., Kellner, H. *et al.* 1968. Metabolism of endosulfan in milk sheep. *J. Agric. Food Chem.* **16:** 950-953.

Gosselin, R. E., Smith, R. P., Hodge, H. C. *et al.* (Eds.) 1984. *Clinical Toxicology of Commercial Products.* 5th Ed. Baltimore, MD: Williams and Wilkins, USA. Pp. 286.

Green, M. H. L. and Murriel, W. J. 1976, Mutagen testing using Trp^+ reversion in *E. coli, Mutat. Res.* **38:** 3-32.

Grimmett, W. G., Dzendolet, I., Whyte, I. 1996. Intravenous thiodan (30% endosulfan in xylene). *J. Toxicol. Clin. Toxicol.* **34**(4): 447-452.

Gupta, P. K., Gupta, R. C. 1979. Pharmacology, toxicology and degradation of endosulfan: A review. *Toxicology*, **13:** 115-130.

Gupta, P. K., Murthy, R. C. and Chandra, S. V. 1981. Toxicity of endosulfan and manganese chloride: Cumulative toxicity rating. *Toxicol. Lett.* **7:** 221-227.

Gupta, R. S. Genetic Markers for Quantative Mutagenesis Studies in Chinese Hamster Ovary Cells: Applications to Mutagen Screening Studies, Chapter 13, In: *Handbook of Mutagenecity Test Procedures* 2nd Edition, 1984. B. J. Kilbey, M. Legator, W. Nocholas and C. Ramel (Eds.) Published by Elsevier Science Publishers BV. pp-239-268.

Hack, R., Ebert, E. and Leist, K. H. 1995. Chronic toxicity and carcinogenicity studies with the insecticide endosulfan in rats and mice. *Food Chem. Toxicol.* **33**(11): 941-950.

Hallenbeck, W. H. and Cunningham-Burns, K. M. 1985. *Pesticides and Human Health.* Springer-Verlag, New York. Pp. 6-41.

Hartman, P. E., Hartman, Z., Stahl, R. C. and Ames, B. N. 1971, Classification and Mapping of spontaneous and induced mutations in histidine operon of *Salmonella*, *Adv. Genet.* **16:** 1-34.

Hawarth, S., Lawlor, T., Mortelmans, K., Speck, W. and Zeiger, E. 1983. *Salmonella* mutagenicity results for 250 chemicals, *Environ. Mutagen,* **5:** 3-142.

Hayashi, M., Morita, T., Kodama, Y., Sofuni, T. and Ishidate, M. Jr. 1990. The micronucleus assay with mouse peripheral blood reticulocytes using acridine orange-coated slides. *Mutat. Res.*, **245:** 245-249.

Hayes, W. J. Jr. and E. R. Laws Jr. 1991. *Handbook of Pesticide Toxicology.* Academic Press Inc., New York. Pp. 816-822.

Heddle, J. 1983. A rapid *in vivo* test for chromosomal damage. *Mutat. Res.*, **18:** 187-190.

Hill, E. F. and Camardese, M. B. 1986. *Lethal Dietary Toxicities of Environmental Contaminants to Coturnix, Technical Report Number 2.* US Department of Interior, Fish and Wildlife Service, Washington DC. 6-55.

Hoechst Aktiengesellschaft. 1966b. Beta-thiodan: Acute oral and subcutaneous toxicity to the mouse. Technical Report, Doc #A14024. [unpublished study]

Hoechst Aktiengesellschaft. 1975. Beta-endosulfan pure (analysis GOE 1495): Acute oral toxicity in female SPF-Wistar rats. Technical Report, Doc #A05270. [unpublished study]

Hoechst Aktiengesellschaft.1966a. Alpha-thiodan: Acute oral and subcutaneous toxicity to the mouse. Technical Report, Doc #A14023. [unpublished study]

Hoechst, 1984. Endosulfan - active ingredient technical (code HOE 02671 OI ZD97 0003): 13-Weeks toxicity study in mice (final report). Conducted for Hoechst Aktiengesellschaft, Frankfurt, Germany. Huntington Research Centre, Cambridgeshire, England. HST 229/831052. [unpublished study]

Hoechst, 1986. A dermal absorption study in rats with 14C endosulfan: (Alternative version of study report MRID no. 40040701). Conducted for American Hoechst Corporation, Somerville, NJ. WIL Laboratories, Inc., Ashland, OH. Project no. WIL-39028. [unpublished study]

Hoechst. 1989a. Endosulfan - substance technical (code HOE 02671 OI ZD97 0003): Combined chronic toxicity/carcinogenicity study: 104-Week feeding in rats. Conducted for Hoechst Aktiengesellschaft, Frankfurt, Germany. Huntington Research Centre, Cambridgeshire, England. Project no. HST 289/881067. [unpublished study]

Hoechst. 1989b. Endosulfan - active ingredient technical (code HOE 02671 OI ZD97 0003): Carcinogenicity study in mice: 24-Month feeding study. Hoechst Aktiengesellschaft, Frankfurt, Germany. TOXN no. 83.0113. [unpublished study]

Hoechst. 1989c. Endosulfan - substance technical (code HOE 02671 OI ZD96 0002): Testing for toxicity by repeated oral administration (1-year feeding study) to Beagle dogs. Conducted for Hoechst Aktiengesellschaft, Frankfurt, Germany. Project no. 87.0643. [unpublished study]

Holden, H. E., Majeska, J. B. and Studwell D. 1997. A direct comparison of mouse and rat bone marrow and blood as target tissues in the micronucleus assay. *Mutat. Res.* **391:** 87-89.

Howard, P. H. (Ed.). 1991. *Handbook of Environmental Fate and Exposure Data for Organic Chemicals and Pesticides.* Lewis Publishers, Chelsea, MI. 6-13.

Hsie, A. W., Recio, L., Katz, D. S., Lee, C. Q., Wagner, M. and Schenley, R. L., 1986. Evidence for reactive oxygen species inducing mutations in mammalian cells. *Proc. Nat. Acad. Sci.* USA. **83:** 9616-9620.

http://www.mp.wa.gov.au/giz-watson/speeches/fitzroy.html.

Hu, T., Miller, C. M., Ridder, G. M. and Aardema, M. J. 1999. Characterization of p53 in Chinese hamster cell lines CHO-K1, CHO-WBL and CHL: Implications for Genotoxicity testing. *Mutation Research.* **426:** 51-62.

Hudson, R. H., Tucker, R. K. and Haegele. 1984. *Handbook of Acute Toxicity of Pesticides to Wildlife,* Resource Publication **153**. US Department of Interior, Fish and Wildlife Service, Washington DC. 6-54.

Hunt, D. M. and Jhonson, D. R. 1971. Abnormal spermatogenesis in 2 pink eyed sterile mutants in the mouse, *J. Embryol. Exp. Morphol.,* **26:** 111-121.

Hurt, S. S. 1991. *Dicofol: Toxicological Evaluation of Dicofol Prepared for the WHO Expert Group on Pesticide Residues* (Report No. 91 R-1017). Toxicology Department, Rohm & Haas Company, Spring House, PA. 6-45.

ICH, 1995. Topic S2A, Genotoxicity: Guidance on Specific Aspects of Regulatory Genotoxicity Tests for Pharmaceuiticals, International Conference on

Harmonisation of Technical Requirement for Registration of Pharmaceuticals for Human Use. Harmonised Tripartite Guideline CPMP/ICH/141/95, approved September 1995. London: European Medicines Evaluation Agency.

ICH, 1997. Topic S2B, Genotoxicity: A Standard Battery for Genotoxicity Testing of Pharmaceuiticals, International Conference on Harmonisation of Technical Requirement for Registration of Pharmaceuticals for Human Use. Step 4 Guideline, 16 July 1997. London: European Medicines Evaluation Agency.

International Agency for Research on Cancer, 1973. Scientific Publications, No. 10, Chemical Carcinogenesis Essays (XIV+pp. 230. Illus.) Pp. 161-181. Lyons, France.

International Federation of Clinical Chemistry (IFCC). 1980. *Clinica. Chemica. Acta.*, **105:** 145 – 175. As cited by ERBA Test, Transasia Bio-medicals Ltd., Mumbai, India.

IPCS, 1984. Endosulfan: *Environmental Health Criteria Monographs*, **40:** World Health Organization, Geneva, Switzerland.

IPCS, 1988. *Endosulfan: Health and Safety Guide No.17.* International Programme on Chemical Safety, World Health Organization, Geneva, Switzerland.

IPCS, 1998a. *Inventory of IPCS and other WHO pesticide evaluations and summary of toxicological evaluations performed by the Joint Meeting on Pesticide Residues (JMPR).* WHO/PCS/98.1. World Heath Organization. Geneva, Switzerland.

IPCS, 1998b. *The WHO Recommended classification of pesticides by hazards and guidelines.* WHO/PCS/98.21/Rev.1. World Health Organization, Geneva, Switzerland.

IPCS/CEC, 1999. International Chemical Safety Cards: 0742 Endosulfan (Mixed Isomers). World Health Organization, Geneva, Switzerland.

Ishida, Y., Negishi, C., Umemoto, A., Fujita, Y., Sato, S., Sugimua, T. *et al.* 1987. Activation of mutagenic and carcinogenic amines by S9 from the liver of a rhesus monkey, *Toxicol. In Vitro,* **1:** 45-48.

Iyer, V. N. and Szybalski, W. 1958. Two simple methods for the detection of chemical mutagens. *Appl. Microbiol., Biol.*, **6:** 23-29.

Jendrassik, L. and Grof, P. 1938. *Biochem. J.*, **297:** 81. As edited by ERBA – Test, Transasia Bio-medicals Ltd., Mumbai, India.

Johnson, W. W. and Finley, M. T. 1980. *Handbook of Acute Toxicity of Chemicals to Fish and Aquatic Invertebrates,* Resource Publication 137, US Department of Interior, Fish and Wildlife Service, Washington DC. 6-56.

Jorgensen, S.E., Jorgensen, L.A. and Nielsen, S.N. 1991. Handbook of Ecological Parameters and Ecotoxicology. Elsevier. Amsterdam, Netherlands.

Joshi, S. 2001. Children of Endosulfan. *Down to Earth* **19:** Pp. 28.

Jung, Weigand, W. and Kramer, P. 1983. Mouse micronucleus test following oral administration. Hoechst AG report No. 83.0458; document No. A31628. Submitted

to WHO by Hoechst Schering AgrEvo GmbH, Frankfurt, Germany. [Unpublished Report]

Kao, F. T. and Puck, T. T. 1968. Genetics of somatic mammalian cells, VII. Induction and isolation of nutritional mutants in Chinese hamster cells. *Proceedings of the National Academy of Sciences*, **60:** 1275-1281.

Khan, P. K. and Sinha, S. P. 1996. Ameliorating effect of vitamin C on murine sperm toxicity induced by three pesticides (endosulfan, phosphamidon and mancozeb). *Mutagenesis,* **11**(1): 33-36.

Kidd, H. and James, D. R. (Eds.). 1991. *The Agrochemicals Handbook*, 3rd Edition. Royal Society of Chemistry Information Services, Cambridge, UK. Pp. 6-10.

Kirkland, D. J., Marshall. R. R., McEnaney, S., Bidgood, J., Ruter, A. and Mullineux, S. 1989. Aroclor induced rat liver S9 causes chromosome aberrations in CHO cells but not in human lymphocytes: a role of active oxygen? *Mutation Research* **214:** 115-122.

Klaassen, C. D. and Watkins, J. B. 1999. *Casarett & Doull's Toxicology: The basic science of Poisons.* 5th Ed. MacGraw-Hill Publishing Company, New York. Pp. 542-547.

KNMP, 1996. Informatorium Medicamentorum, deel 1, Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie,s-Gravenhage, Germany.

Krzanowska, H. 1976, Inheritance of sperm head abnormality types in mice and the role of the Y chromosome, *Genet. Res.*, **28:** 189-198.

Lake, B. G. 1987. Preparation and characterization of microsomal fractions for studies of xenobiotic metabolism, In: *Biochemical Toxicology*: *A practical approach.* K. Snell & B. Mullock (Eds.). Oxford: IRL Press. UK. Pp.183-215.

Latt, S. A., Juergenss, L. A., Mathews, D. J., Gustashaw, K. W. and Sahar, E. 1981. Energy-enhanced chromosome banding. An overview. *Cancer Genet. Cytogenet.*, **1:** 187–196.

Lehr, W. 1996. Summary of intoxications with endosulfan, clinical cases and poisoning incidents, Unpublished Hoechst report No. psr96/006, 12 March 1996; document A56361. Submitted to WHO by Hoechst-Schering AgrEvo GmbH, Frankfurt-am-Main, Germany.

Leist, K. H. 1989. Endosulfan-substance technical (code: Hoe 002671 oi ZD97 0003). Carcinogenicity study in mice, 24 months feeding study -- Residue determination. Pharma Research Toxicology and Pharmacology.Unpublished Hoechst document No. A41284. Submitted to WHO by Hoechst Schering AgrEvo GmbH, Frankfurt-am-Main, Germany.

Leoni, V., Fabiani, L. and Marinelli, G. 1989. PCB and other organochlorines in blood of women with or without miscarriage: A hypothesis of correlation, *Ecotoxicol. Environ. Safety,* **17:** 1-11.

Levin, D. E., Hollstein, M. C., Chirstman, M. F., Schwiers, E. A. and Ames, B. N. 1982a. A new *salmonella* tester strain (TA102) with A-T base-pairs at the site of mutation detects oxidative mutagens, *Proc. Nat. Acad. Sci.*, USA. **79:** 7445-7449.

Levin, D. E., Yamaski, E. and Ames, B. N. 1982b. A new *Salmonella* tester strain for the detection of frame-shift mutagens: a run of cytokines as a mutational hotspot. *Muta. Res.* **94:** 315-330.

Little, J. B., Yandell, D.W. and Liber, H. L. 1987. Molecular analysis of mutations at the *tk* and *hgprt* loci in human cells. In: *Mammalian Cell Mutagenesis, Banbury Report No. 28.* M. M. Moore, D. M. DeMarini, F. J. De Serres, and K. R. Tindall, (Eds.), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. pp. 225-236.

Lovell, D. P., Albanese, R. Clare, G., Richold, M., Savage, J. R. K., Anderson, D. *et al.* In: *Statistical Analysis of in vivo Cytogenetic assays*, Cambridge University Press, Cambridge, UK. Pp. 185-231.

Lovell, D. P., Anderson, D., Albanese, R., Amphlett, G. E., Clare, G., Ferguson, R., Richold, M., Papworth, D. G. and Savage, J. R. K. 1989. Statistical Analysis of *In Vivo* Cytogenetic Assays In: *Statistical Evaluation of Mutagenicity Test Data.* D.J. Kirkland (Ed.) UKEMS Sub- Committee on Guidelines for Mutagenicity Testing, Report, Part III. Cambridge University Press, Cambridge, New York, Port Chester, Melbourne, Sydney, pp. 184-232.

Lu, Y. *et al. 2000.* Genotoxic effects of α-endosulfan and β-endosulfan on human HepG2 cells. *Environmental Health Perspectives* **108:** 559-561.

Lyman, W. J. *Handbook of Chemical Property Estimation Methods: Environmental Behavior of Organic Compounds.* 1983. McGraw-Hill Publishers, New York. 6-33.

Mackison, F. W., Stricoff, R. S. and Partridge, L. J. 1981. *IOSH/OSHA - Occupational Health Guidelines for Chemical Hazards.* DHHS (NIOSH) Publication No. 81-123 (3 vols.), Government Printing Office, Washington DC, U.S.

Maier-Bode, H. 1968. Properties, effect, residues and analytics of the insecticide endosulfan. *Residue Rev.* **22:** 1-44.

Malling, H. V. 1971. Dimethylnitrosamine: Formation of mutagenic compounds by interaction with mouse liver microsomes, *Mutat. Res.*, **13:** 425-429.

Margolin, B. H., Resnick, M. A., Rimpo, J. Y., Archer, P., Galloway, S. M., Bloom, A. D. and Zeiger, E. 1986. Statistical analyses for *in vitro* cytogenetic assays using Chinese hamster ovary cells. *Environ. Mutagen.*, **8:** 183–204.

Maron, D. and Ames, B. N. 1983. Revised methods for the *Salmonella* Mutagenicity test, *Mutat. Res.* **113:** 173-215.

Martin, E. W. 1971. *Hazards of Medication: A manual on Drug Interactions, Incompatibilities, Contraindications, and Adverse Effects.* Lippincott Press, Philadelphia, PA. 6-24.

Matsumura, F. 1985. *Toxicology of Insecticides,* 2nd Edition. Plenum Press, New York, 6-54.

Matsushima, T., Yahagi, T., Takamoto, Y., Nagao, M. and Sugimura, T. 1980. Species differences in microsomal activation of mutagens and carcinogens, with special reference to new potent mutagens from pyrolysates of amonio acids and protein, In: *Microsomes, Drug Oxidations and Chemical Carcinogenesis,* M. J. Coon, A. H. Cooney, R.W. Estabrook, H. Gelboin, J. R. Gillette and P. J. O.' Brien (Eds.). Academic Press, New York, USA. Pp. 1093-1102.

McEwen, F. L. and Stephenson, G. R. *The Use and Significance of Pesticides in the Environment.* 1979. John Wiley and Sons, New York. Pp. 6-34.

McGee, J. H., San Sebastian, J. R. and Duan Sofia, R. 1997. *In vivo* mtagenecity studies with iodinated glycerol azeo. *Mutation Research.* **395:** 29-36.

McGregor, D. B., Edwards, I., Riach, C. G., Cattanach, P., Martin, R., Mitchell, A. and Caspary, W. J. 1988c. Studies of an S9-based metabolic activation system used in the mouse lumphoma l5178Y cell mutation assay. *Mutagenesis,* **3:** 485-490.

McGregor, J. T., Schlegel, R., Choy. W. N. and Wehr, C. M. 1983. Micronuclei in circulating erythrocytes: A rapid screen for chromosomal damage during routine toxicity testing in mice. In: *Development in the Science and Practice of Toxicology,* A.W. Hayes, R. C. Schnell and T. S. Miya (Eds.) Elsevier, Amesterdam. pp 555-558.

McGregor, J. T., Wehr, C. M., Henika P. R., Shelby M. D. 1990. The *in vivo* erythrocyte micronucleus test: measurement as steady state increases assay efficacy and permits integration with toxicity studies. *Funda. Appl. Toxicol.* **14:** 513-522.

McLachlan, J. A. 1997. Synergistic effect of environmental estrogens: Report withdrawn. *Science,* **277:** 462-463.

Meister, R. T. (Ed.) 1992. *Farm Chemicals Handbook '92,* Meister Publishing Co., Willoughby, OH.

Menzie, C. M. 1974. *Metabolism of Pesticides: Special Scientific Report: Wildlife.* US Department of the Interior, Fish and Wildlife Service, U.S. Government Printing Office, Washington DC. 6-35.

Metcalf, R. L., Kapoor, I. P., Lu, P., Schuth, C. K. and Sherman, P. 1973. Model ecosystem studies of environmental fate of six organochlorine pesticides. *Environ. Health Perspect.*, **4:** 35-44.

Michael, H. 2003. Endosulfan Preliminary Dossier; www.unece.org/env/popsxg/docs/2000-2003/, dossier-endosulfan-may 03.pdf.

Miller, E. C. and Miller, J. A. 1971. The mutagenicity of chemical carcinogens: correlations, problems and interpretations. In: *Chem. Mutagens* Vol. I, A. Hollaender (Ed.) Plenum, New York. pp. 83-119.

Ministry of Chemicals & Fertilizers, 2004. Productive Installed Capacity and production of chemicals (2001-2004), *Technical Report,* Monitoring and Evaluation Division, Department of Chemicals & Petrochemicals, Govt. of India, New Delhi.

Moore, M. M., Harrington-Brook, K. De Marini, D.M. and Doerr, C. 1987b. Differential recovery of induced mutants at the mouse lymphoma *tk* and CHO *hgprt* loci in mammalian cells. In: *Mammalian Cell Mutagenesis,* M. M. Moore, D. M. DeMarini, F. J. De Serres, and K. R. Tindall, (Eds.) Banbury Report No. 28. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. pp. 93-108.

Moore, M. M., Harrington-Brook, K., Doerr, C. L. and Dearfield K. L. 1989. Differential mutant quantitation at the mouse lymphoma *tk* and CHO *hgprt* loci, *Mutagenesis*, **4 and 5:** 394-403.

Moriya, M., Ohta, T., Watanabe, K., Miyazawa. T., Kato, K., Shirasu, Y. 1983. Further mutagenicity studies on pesticides in bacterial reversion assay systems. *Mutat. Res.,* **116:** 185-216.

Murty, A. S. 1986. *Toxicity of Pesticides to Fish.* Vol. II. CRC Press, Boca Raton, FL. Pp. 6-12.

Myers, D. 1999. Endosulfan found in Australian beef. *Pesticides News,* **44:** 21.

Myers, D. 2000. Cotton Tales. *New Internationalist* **323:**

National Cancer Institute. 1978. Bioassay of Endosulfan for Possible Carcinogenicity, *(Technical Report Series No. 62).* National Institutes of Health, Bethesda, MD. Pp. 6-53.

National Institute for Occupational Safety and Health. 1981-1986. *Registry of toxic effects of chemical substances.* Cincinnati, OH. Pp. 6-25.

NCI, 1978. Bioassay of endosulfan for possible carcinogenicity. Carcinogenesis Testing Program, NCI *Technical Report Series No. 62,* DHEW Publication no. NIH 78-1312. Bethesda, MD: National Cancer Institute. NCI-CG-TR-62.

NIOSH, 1998. *Pocket Guide to Chemical Hazards.* U.S. Department of Health and Human Services. Public Health Service. Centers for Disease Control and Prevention. National Institute for Occupational Safety and Health, USA.

Olson, K. R. (Ed.) 1999. *Poisoning and drug overdose.* Appleton and Lange. pp. 133-134.

Paasivirta, J. 1991. *Chemical Ecotoxicology.* Lewis Publishers, Chelsea, MI. Pp. 6-17.

PANAP, 1996. Endosulfan datasheet. *Pesticide Action Network – Asia and the Pacific, Penang, Malaysia.*

PAN-UK. 1995. 31 die from endosulfan poisoning in Sudan. *Pesticides News* **13:** 7.

PAN-UK. 1995. On/off ban on endosulfan in Colombia. *Pesticides News* **28:** 25.

PANUPS, 1994. International Citizen's Campaign Targets Hoechst Pesticides. *Pesticide Action Network, North America Updates Service.*

PANUPS. 1996. Endosulfan responsible for Alabama fish kill. *Pesticide Action Network North America Updates Service.*

Park, D., Hempleman, S, C. and Propper, C. R. 2001. Endosulfan exposure disrupts pheromonal systems in the Red Spotted Newt: A mechanism for subtle effects of environmental chemicals. *Environmental Health Perspectives,* **109:** 669-673.

Pednekar, M. D., Gandhi, S. R. and Netrawali M. S. 1987. Evaluation of mutagenic activities of endosulfan, Phosalone, Melathion and permethrin, before and after metabolic activation, in the Ames *Salmonella*Test. *Bull. Environ. Contam. Toxicol.*, **38:** 925-933.

Pimentel, D. 1971. *Ecological Effects of Pesticides on non target Species.* President's Office of Science and Technology, Washington DC. Pp. 6-44.

Pradhan, S., Pandey, N., Phadke, R.V., Kaur, A., Sharma, K. and Gupta, R. K. 1997 Selective involvement of basal ganglia and occipital cortex in a patient with acute endosulfan poisoning. *J. Neuro. Sci.*, **147**(2): 209-213.

Preston, V. G. 1981. Fine-structure mapping of herpes simplex virus type 1 temperature-sensitive mutations within the short repeat region of the genome. *Journal of Virology* **39:** 150-161.

Preston, V. G., Davison, A. J., Marsden, H. S., Timbury, M. C., Subak-Sharpe, J. H. and Wilkie, N. M. 1978. Recombinants between herpes simplex virus types 1 and 2: analyses of genome structures and expression of immediate early polypeptides. *Journal of Virology* **28:** 499-517.

Quijano, R. F. 2000. Risk Assessment in a third world reality: An Endosulfan case History. *International Journal of Occupational and Environment Health.* **6**(4):

Quistad, G. B., and Mulholland, K. M. 1986. Photodegradation of dienochlor. *J. Agric. Food Chem.* **31**(3): 621-624.

Quistad, G. B., Mulholland, K. M. and Skinner, W. S. 1986. The fate of dienochlor administered orally and dermally to rats. *Toxicol. Appl. Pharmacol.* **85**(2): 215-220.

Raizada, R. B., Srivastava, M. K., Dikshith, T. S. S. 1991. Lack of estrogenic effects of endosulfan: An organochlorine insecticide in rat. *Nat. Acad. Sci. Lett.* **14:** 103-107.

Raloff, J. 1998. Common pesticide clobbers amphibians. *Science News,* **154:** 150.

Ramamoorthy, K., Wang, F., Chen, I. C., Norris, J. D., McDonnel. D. P., Leonard, *et al.*1997. Estrogenic activity of a dieldrin/toxaphene mixture in the mouse uterus, MCF-7 human breast cancer cells, and yeast-based estrogen receptor assays: No apparent synergism. *Endocrinology,* **138:** 1520-1527.

Rastogi, P. B. and Levin, R. E. 1987. Induction of sperm abnormalities in mice by quercetin. *Environmental Mutagenesis*, **9**(1): 79-86.

Reigart, R. J., Roberts, J. R. 1999. *Recognition and Management of Pesticide Poisonings.* 5th Edition. US Environment Protection Agency, USA. Pp. 55-62.

Richold, M., Ashby, J., Bootman, J., Chandley, A., Gatehouse, D. G. and Henderson, L. *In Vivo* Cytogenetics Assays, In: *Basic Mutagenicity Tests, UKEMS Recommended Procedures.* 1990. D. J. Kirkland (Ed.) UKEMS Subcommittee on Guidelines for Mutagenicity Testing. Revised Report. Part I. Cambridge University Press, Cambridge, New York. Pp. 115-141.

Riley, V. 1960. Adaptation of orbital bleeding technique to rapid serial blood studies. *Proc. Soc. Exp. Biol. and Med.*, **104:** 750.

Rohm and Haas Company, 1991. *Material Safety Data Sheet for Kelthane*, Technical B Miticide. Philadelphia, PA. Pp. 6-46.

Roméo, M., Bennani, N., Gnassia-Barelli, M., Lafaurie M. and Girard, J. P. 2000. Cadmium and copper display different responses towards oxidative stress in the kidney of the Sea Bass *Dicentrarchus labrax. Aquatic Toxicology,* **48**(2-3): 185-194.

Ron, M., Cucos, S. and Rosenn, B. 1988. Maternal and fetal serum levels of organo-chlorine compounds in cases of premature rupture of membranes. *Acta. Obstet. Gynecol. Scand.*, **67:** 695-697.

Salamone, M. F. and Heddle, J. A. 1983. The Bone marrow micronucleus assay, Rational for a revised protocol, In: *Chemical Mutagenesis.* F. J. Deserrer (Ed.), Plenum, New York. Pp. 111-149.

Sancewicz-Pach, K., Groszek, B., Pack, D., and Klys, M. 1997. Acute pesticide poisoning in pregnant women. *Przegl Lek,* **54**(10): 741-744.

Savage, J. R. K. 1975. Classification and relationship of induced chromosomal structural changes. *J. Med. Genet.*, **12:** 103 -122.

Sax, N. I. 1984. *Dangerous Properties of Industrial Materials,* 6th Edition. Van Nostrand Reinhold. New York, USA.

SCCNFP, 2004. Recommended Mutagenicity/ Genotoxicity Tests for the Safety Testing of Cosmetic Ingredients to be Included in the Annexes to Council Directive 76/768/EEC.SCCNFP/0755/03,Adopted 23rd April 2004.

SCCP, 2006. Updated Recommended Stratergy for Testing Oxidative Hair Dye Substances for their Potencial Mutagenicity/ Genotoxicity.SCCP/0971/06,28thMarch 2006.

Schmid, W. 1976. The micronucleus test for cytogenetic analysis. In: *Chemical Mutagenesis.* Hollander (Ed.), Plenum, New York. Pp. 31-53.

Sebastien, A., Ledirac, N., Anne-Pascale, L., Lenormand, P., Jean-Claude, C. and Rahmani, R. 2007. Endosulfan decreases cell growth and apoptosis in human HaCaT keratinocytes: Partial ROS-dependent ERK1/2 mechanism. *Journal of Cellular Physiology,* **213**(1): 177 – 186.

Seuanez, H. N., Carothers, A. D., Martm, D. E. and Short, R.V. 1977. Morphological abnormalities in spermatozoa of man and great apes. *Nature,* **270:** 345-347.

Shein-Chung Chow (Ed.): 1998. *Design and Analysis of animal Studies in Pharmaceutical Development,* Marcel Dekker, New York. pp.360-370.

Shelby, M. D., Newbold, R. R., Tully, D.B., Chae, K., Davis, V. L. 1996. Assessing environmental chemicals for estrogenicity using a combination of *In vitro* and *In vivo* assays. *Environmental Health Perspectives*, **104:** 1296-1300.

Shell International Chemical Company Limited, 1990. Shell: *Agriculture Safety Guide*, Crop Protection Division, Shell Centre, London. Pp. 35-36 and Pp. 71-75.

Shemesh, Y., Bourvine, A., Gold, D., Brancha, P. 1989. Survival after acute endosulfan poisoning. *J. Toxicol. Clin. Toxicol.,* **26**(3-4): 265-268.

Shetty, P. K., Mitra, J., Murthy, N. B. K., Namitha, K. K., Savitha K. N. and Raghu K. 2000. Biodegradation of cyclodiene insecticide endosulfan by Mucor thermo-hyalospora MTCC 1384. *Current Science*, **79**(9): 1381-1383.

Shimada, T. and Okuda, Y. 1988. Metabolic activation of environmental carcinogens and mutagens by human liver microsomes, *Biochem. Pharmacol.* **37:** 459-465.

Singh, S. K. and Pandey, R. S. 1989. Gonadal toxicity of short term chronic endosulfan exposure to male rats. *Indian Journal of Experimental Biology*, **27:** 341-346.

Sinha, N., Narayan, R. and Saxena, D. K. 1997. Effect of endosulfan on the testis of growing rats. *Bull. Environ. Contam. Toxicol.,* **58:** 79-86.

Sinha, S. P. and Prasad, V. 1990. Effect of dietary concentration of crude aflatoxin on meiotic chromosomes, sperm morphology and sperm count in mice, *Mus musculus. Proc. Indian Nat. Sci. Acad.,* **B56:** 269-276.

Smith, A. G. 1991. Chlorinated Hydrocarbon Insecticides, In: *Handbook of Pesticide Toxicology.* W. J. Hayes, Jr. and E. R. Laws, Jr. (Eds.) Academic Press Inc., New York, USA. 6-38.

Smith, D. W. E. 1966. Mutagenicity of cycasin aglycone (methylazoxymethanol) a naturally occurring carcinogen. *Science,* **192:** 1273-1274.

Snee, R. D. and Irr, J. D. 1981. Design of a statistical method for the analysis of mutagenesis at the hypoxanthine-guanine phosphoribosyl transferase locus of cultured Chinese hamster ovary cells. *Mutat. Res.,* **85**(2): 77-93.

Soares, E. R., Sheridan, W., Haseman, J. K. and Segall, M. 1979. Increase frequency of aberrant sperm as indicators of mutagenic damage in mice, *Mutation Research,* **64:** 27-35.

Sobti, R. C., Krishnan, A. and Davies, J. 1983. Cytokinetic and cytogenetic effect of agricultural chemicals on human Lymphoid cells *In vitro*; II. Organochlorine pesticides. *Archieves of Toxicology*, **52:** 221-231.

Sofuni, T., Matsuoka, A., Sawada, M., Ishidate Jr. M., Zeiger, E. and Shelby, M. D. 1990. A comparison of chromosome aberration induction by 25 compounds tested by two Chinese Hamster Cells (CHO and CHL) systems in culture. *Mutation Research*, **241:** 175-213.

Sood, A. K., Yadav, S. P. and Sood, P. 1994. Endosulfan poisoning presenting as status epilepticus. *Indian J. Med. Sci.* **48**(3): 68 -69.

Soto, A. M., Chung, K. L., Sonnenschein, C. 1994. The pesticides endosulfan, toxaphene and dieldrin have estrogenic effects on human estrogen-sensitive cells. *Environ. Health Perspectives*, **102:** 380-383.

Soto, A. M., Sonnenschein, C., Chung, K. L., Fernandez, M. F., Olea, N., Serrano, F. O. 1995. The E-screen assay as a tool to identify estrogens: An update on estrogenic environmental pollutants. *Environ Health Perspectives,* **103:** 113-122.

Spinner, N. B., Rand, E. B., Fortina, P., Genin, A., Taub, R., Semeraro, A. and Piccoli, D. A. 1994. Cytologically balanced t (2;20) in a two-generation family with alagille syndrome: cytogenetic and molecular studies. *Am. J. Hum. Genet.*, **55**(2): 238-243.

Stankowaski, L. F., Jr and Hsie, A. W. 1986. Quantative and moleciular analysis of radiation-induced mutations in AS52 cells. *Radiat. Res.*, **105:** 37-48.

Statland, B. E. and Winkel, P. 1984. Pre-instrumental sources of variation. In: *Clinical Diagnosis and Management of Laboratory Methods*, J. B. Henry and W. B. Saunders, Philadelphia. Pp. 61-73.

Suber, L. R. 1994. Clinical Pathology, Methods for Toxicology Studies. In: *Principles and Methods of Toxicology*, 3rd Edition, A. W. Hayes (Ed.), Raven Press, Ltd., New York, USA. **20:** 729-766.

Surendranath, C. 2001. Double trouble. *Down To Earth* **10**:

Szybalski, W. 1958. Special microbiological systems: 2. Obeservations on chemical mutagenesis in microorganisms, *Ann. Amer. Acad. Sci.* **76:** 475-489.

Talke, H. and Schubert, G. E. 1965. *Klin. Wchenschr.*, **43:** Pp. 174. As edited by ERBA – Test, Transasia Bio-medicals Ltd., Mumbai, India.

Tan, E. L. and Hsie, A. W. 1981. Mutagenicity and cytotoxicity of haloethanes as studied in the CHO/HGPRT system. *Mutat. Res.*, **90**(2): 183-191.

Technical Guidance Document (TGD) 2003. *Technical Guidance Document,* 2nd Edition. European Chemicals Bureau, Joint Research Centre, Italy. http://ecb.jrc.it/new-chemicals/documents-accessed December 2003.

Terziev, G., Dimitrova, N. and Rusev, F. 1974. Forensic medical and forensic chemical study of acute lethal poisinnins with Thiodan. *Folia Med.,* **16:** 325-329.

THANAL, 2001. Preliminary Findings of the Survey on the Impacts of Aerial Spraying on the People and the Ecosystem. Thanal Conservation and Information Network, Thiruvananthapuram, India.

THANAL. 2002. Experts Confirm Endosulfan Poisoning.Thanal Conservation Action and Information Network, Kerala, India. Press Release [22 January 2002].

Tillman, A. 1992. Residues, Environmental Fate and Metabolism Evaluation of Dicofol, prepared for the FAO Expert Group on Pesticide Residues. *(Report No. AMT 92-76).* Rohm and Haas Company, Philadelphia, PA. Pp. 6-47.

Toa Medical Electronics Co. Ltd. 1988. *Sysmex Operators Manual K – 1000.*, Kobe, Japan.

Tomlin, C. (Ed.) 1994. *The Pesticide Manual. Incorporating the Agrochemicals Handbook.* The British Crop Protection Publications. Pp.171-172.

Ton, P. *et al.* 2000. Endosulfan deaths and poisonings in Benin. *Pesticides News* **47:** 12-14.

Trabalka, J. R. and Garten, C. T., Jr. *Development of Predictive Models for Xenobiotic Bioaccumulation in Terrestrial Ecosystems.* Environmental Sciences Division Publication No. 2037. Oak Ridge National Laboratory, Oak Ridge, TN. Pp. 6-67.

Trinder, P. 1969. *Ann. Clin. Biochem.*, 6(24). As edited by ERBA Test, Transasia Bio-medicals Ltd., Mumbai, India.

Turner, N. T., Batson A. G. and Clive, D. Procedures for the L5178Y/TK$^{+/-}$ TK$^{-/-}$ Mouse Lymphoma Cell Mutagenicity Assay In: *Handbook of Mutagenecity Test Procedures*, 2nd Edition, 1984. B. J. Kilbey, M. Legator, W. Nocholas and C. Ramel (Eds.) Published by Elsevier Science Publishers BV. pp-239-268.

U.S. Agency for Toxic Substances and Disease Registry, 1989. *Toxicological Profile for Chlordane* (ATSDR/TP-89/06). Atlanta, GA. Pp. 6-21.

U.S. Agency for Toxic Substances and Disease Registry. 1990. *Toxicological Profile for Endosulfan. Draft Report.* Atlanta, GA, Pp. 6-52.

U.S. Agency for Toxic Substance and Disease Registry. 1992. *Toxicological Profile for Pentachlorophenol.* Draft Report. Atlanta, GA,.

U.S. Agency for Toxic Substance and Diseases Registry. 1994. *Toxicological Profile for Hexachlorobenzene (Update) Draft for Public Comment.* Atlanta, GA. Pp. 6-60.

U.S Environmental Protection Agency. Health Advisory Summary: *Dalapon.* Office of Drinking Water, Washington DC, USA. Pp.6-43.

U.S. Environmental Protection Agency, 1989. Health Advisory Summary: Chlordane. *Technical Report,* Office of Drinking Water, Washington DC, USA. Pp. 6-22.

U.S. Environmental Protection Agency, 1995. Integrated Risk Information System, Washington DC, USA. Pp. 6-9.

U.S. Environmental Protection Agency. 1968-81. Pesticide Abstracts: 75-0098, 78-2944, 79-1635, 80-0246, 81-1983. Washington DC, USA. Pp.6-69.

U.S. Environmental Protection Agency. 1981. *Dienochlor.* Washington DC, USA. Pp. 6-50.

U.S. Environmental Protection Agency. 1983. *Guidance for the Re-registration of Pesticide Products Containing Chlorobenzilate as the Active Ingredient.* Washington DC, USA. Pp. 6-7.

U.S. Environmental Protection Agency. 1983. *Guidance for the Re-registration of Pesticide Products Containing Chlorobenzilate as the Active Ingredient.* Washington DC, USA. Pp.6-30.

U.S. Environmental Protection Agency. 1984. *Pesticide Fact Sheet Number 15: Chlorobenzilate.* Office of Pesticides and Toxic Substances, Washington DC, USA. Pp.6-32.

U.S. Environmental Protection Agency. 1985. *Pesticide tolerance for chlorothalonil.* Fed. Regist. **50:** Pp. 6-37.

U.S. Environmental Protection Agency. 1986. *Pesticide Fact Sheet Number 109: Chlordane.* Office of Pesticides and Toxic Substances, Washington DC, USA. 6-27.

U.S. Environmental Protection Agency. 1987. Chlorothalonil Health Advisory. Draft Report. Office of Drinking Water, Washington DC, USA. Pp. 6-36.

U.S. Environmental Protection Agency. Health Advisory Summaries: 1989. *Methoxychlor.* Office of Drinking Water, Washington DC. USA. Pp. 6-66.

U.S. Environmental Protection Agency. 1990. *Toxicology One-Line Summary: Dienolchlor.* Environmental Fate and Effects Division, Washington DC, USA. Pp. 6-48.

U.S. Environmental Protection Agency. 1994. National Primary Drinking Water Standards (EPA 810-F94-001-A). Washington, DC. Pp.6-68.

U.S. Environmental Protection Agency. 1995. Health Advisory Summary: Chlordane. Office of Drinking Water, Washington DC, USA. 6-26.

U.S. National Library of Medicine. 1995. Hazardous Substances Data Bank. Bethesda, MD, Pp. 6-18.

U.S. Occupational Safety and Health Administration. 1994. *Permissible Exposure Limits for Air Contaminants,* (29 CFR 1910. 1000, Subpart Z). U.S. Department of Labor, Washington DC, USA. Pp. 6-29.

Ulman, E. L. 1972. *Monograph of an Insecticide.* Springer Verlag, Federal Republic of Germany. Pp. 6-65.

US Environmental Protection Agency. 1989. Environmental Fate and Effects Division, Pesticide Environmental Fate One Line Summary: DDT (p, p'). Washington, DC.

Usha Rani, M. V., Reddi, O. S. and Reddy, P. P. 1980. Mutagenicity studies involving aldrin, endosulfan, dimethoat, phosphamidon, carbaryl and Ceresan. *Bull. Environ. Contam. Toxicol.,* **25:** 277-282.

Van Ert, M. and Sullivan, J. B. 1992. Organochlorine Pesticides, In: *Hazardous Materials Toxicology, Clinical Principles of Environmental Health.* J. B. Sullivan and G. R. Krieger, Williams & Wilkins, Baltimore, MD, USA.

Vankar, P. *et al.* 2001. Analysis of samples from Padre village in Kasagarod district of Kerala for endosulfan residues. *Pollution Monitoring Laboratory – Pesticide Residue Monitoring Study CSE/PRM-1/2001.* Centre for Science and Environment, New Delhi, India.

Vettorazzi, G. 1979. *International Regulatory Aspects for Pesticide Chemicals.* CRC Press, Boca Raton, FL. Pp. 6-38.

Volkner, W. 2000. The potential of endosulfan to induce chromosome aberrations in bone marrow cell of the rat. Guidelines: OECD 475 (1997), EEC B.11 (1992) and EPA 870.5385 (1998). [Unpublished Report]

Voss, G. and Sachsse, K. 1970. Red blood cell and plasma cholinesterase activities in micro samples of human and animal blood determined simultaneously by a modified acetylcholine/DTNB procedure. *Toxicology and Applied Pharmacology*, **16:** 764-772.

Wade, M., Desaulniers, D., Leingartner, K. and Foster, W. 1997. Interactions between endosulfan and dieldrin on estrogen-mediated processes, *In vitro* and *In vivo*. *Reprod. Toxicol.*, **11:** 791-798.

Wagner, S. L. 1981. *Clinical Toxicology of Agricultural Chemicals.* Oregon State University Environmental Health Sciences Center, Corvallis, OR. Pp.6-71.

Ware, G. W. 1986. *Fundamentals of Pesticides: A Self-Instruction Guide.* Thompson Publications, Fresno, C.A. Pp. 6-24.

Wasserman, M., Ron, M., Bercovici, B., Wasserman, D., Cucos, S. and Pines, A. 1982. Premature delivery and organochlorine compounds: polychlorinated biphenyls and some organochlorine insecticides, *Environ. Res.*, **28:** 106-112.

Wauchope, R. D., Buttler, T. M., Hornsby, A. G., Augustijn Beckers, P. W. M. and Burt, J. P. SCS/ARS/CES. 1992. Pesticide properties database for environmental decision making. *Rev. Environ. Contam. Toxicol.* **123:** 1-157.

Weed Science Society of America. 1989. *Herbicide Handbook,* 6th Edition. Champaign, IL, USA. Pp. 6-42.

Whitfield, H. J. Jr., Martin, R. J. and Ames, B. N. 1966. Classification of aminotransferase (C gene) mutants in the histidine operon. *J. Mol. Biol.* **21:** 335-355.

WHO. 1984. *Endosulfan. International Programme on Chemical Safety.* Environmental Health Criteria 40. Geneva, Switzerland. Pp.1-62.

WHO/UNEP/ILO, 1984. International Programme on Chemical Safety. Environmental health criteria 40 – endosulfan.. Geneva, Switzerland.

Williams, W. M., Holden, P. W., Parsons, D. W. and Lorber, M. N. 1988. *Pesticides in Ground Water Data Base 1988 Interim Report.* U.S. Environmental Protection Agency, Office of Pesticides and Programs, Washington DC, USA. Pp.6-64.

Wilson, V. S. and LeBlanc, G. A. 1998. Endosulfan elevates testosterone biotransformation and clearance in CD-1 mice. *Toxicol. Appl. Pharmacol.* **148**(1): 158-168.

World Health Organization (WHO) 1989. Environmental health Criteria 83, DDT and its Derivatives and Environmental Effects. World Health Organization, Geneva, Switzerland.

World Health Organization (WHO), 1984. *Handbook on Endosulfan – Environmental Health Criteria 40,* World Health Organisation, Geneva, Switzerland.

World Health Organization (WHO). 1979. *Environmental Health Criteria 9, DDT and its Derivatives.* World Health Organization, Geneva, Switzerland.

World Health Organization, 2002. The WHO Recommended *classification of Pesticides by Hazard and Guidelines* to Classification 2000–2002. Geneva, Switzerland.

World Health Organization. 1984. *Environmental Health Criteria 38: Heptachlor.* Geneva, Switzerland. Pp. 6-59.

World Health Organization. 1984. *Environmental Health Criteria 38: Heptachlor.* Geneva, Switzerland. Pp. 6-2.

World Health Organization. 1989. *DDT and its Derivatives: Environmental Aspects.* Environmental Health Criteria 83. WHO, Geneva, Switzerland. Pp. 6-11.

Wroblewski, F. and LaDue, J. S. 1956. International Federation of Clinical Chemistry (IFCC). *Proc. Soc. Exper. Biol. And Med.*, **91:** 569. As cited by ERBA Test, Transasia Bio-medicals Ltd., Mumbai, India.

Wyrobeck, A. J. and Bruce, W. R. 1975, Chemical induction of sperm abnormalities in mice. *Proc. Nat. Acad. Sci.* USA. **72:** 4425-4429.

Wyrobeck, A. J., Gordon, L. A., Burkhart, J. G., Fransis, M. W., Kapp, R.W., Letz, G. *et al.* 1983a. An evaluation of the mouse sperm morphology test and other sperm tests in non human mammals: A report of the gene tox program. *Mutation Res.*, **115:** 1-72.

Wyrobeck, A. J., Gordon, L. A., Burkhart, J. G., Fransis, M. W., Kapp, R. W., Letz, G. *et al.*1983b. An evaluation of human sperm as indicators of chemically induced alterations of spermatogenesis function. *Mutation Res.*, **115:** 72-148.

Wyrobeck, A. J., Watchmaker and Gordon, L. 1984. Sperm morphology testing in mice, In: *Handbook of Mutagenic Test Procedures,* B. J. Kilbey, M. Legator, M. Nichols and C. Ramel (Eds.) 2nd Edition. Elsevier, Amesterdam. Pp.739-750.

Yadav, A. S., Vashishat, R. K., and Kakar, S. N. 1982. Testing of endosulfan and fenitrothion for genotoxicity in *Saccharomyces cerevisiae. Muta. Res.*, **105:** 403-407.

Yadav, K. and Jeevan, S. 2002. Endosulfan Conspiracy. *Down to Earth,* http://www.cseindia.org/html/endosulfan/endosulfan_index.htm.

Yandell, D. W., Dryja, T. P. and Little, J. B. 1984. Somatic mutations at a heterozygous autosomal locus in human cells occur more frequently by allle loss than by intergenic structural alterations. *Somatic Cell Mol. Gene.*, **12:** 255-263.

Zeiger, E., Anderson, B., Haworth, S., Lawlor, T. and Mortelmans, K. 1988. *Salmonella* mutagenicity tests: iv Results from the testing of 300 chemicals. *Environ. Mutagen.* **9** (12) 1-158.