

SCIENTIFIC ARTICLES/REPORTS AND ROBUST SUMMARIES USED TO ELABORATE THE DETAILED RISK PROFILE FOR ENDOSULFAN

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Some references in the Risk Profile were collected directly from previous evaluations and mentioned exclusively for indicating the sources employed by the reviewers. These references are not included in the list below.

Albrecht, M.; Baeder, Ch. 1993. Hoe002671 – substance technical (Code: Hoe 002671 00 ZD98 0005) Testing for embryotoxicity in the Wistar rat after oral administration.

Alonso E, Tapie N, Budzinski H, Leménach K, Peluhet L, Tarazona JV. 2008. A model for estimating the potential biomagnification of chemicals in a generic food web: preliminary development. *Environ Sci Pollut Res Int.*; 15(1):31-40.

Armitage JM, Gobas FA. 2007. A terrestrial food-chain bioaccumulation model for POPs. *Environ Sci Technol.*; 41(11):4019-25.

ATSDR (Agency for Toxic Substances and Disease Register). Toxicological Profile for Endosulfan, September 2000. Available at: <http://www.atsdr.cdc.gov/toxprofiles/tp41.pdf>

Bajpayee M, Pandey AK, Zaidi S, Musarrat J, Parmar D, Mathur N, Seth PK, Dhawan A. 2006. DNA damage and mutagenicity induced by endosulfan and its metabolites. *Environ Mol Mutagen.*;47(9):682-92.

Barnard, A.V.; Jones, D.R.; Powell, L.A.J. 1985. Endosulfan – Active Ingredient Technical (Code:Hoe 002671 OI ZD97 0003) 13 Week Toxicity Study in Rats Followed by a 4-Week Withdrawal Period (Final Report).

Barrie, L.A., D. Gregor, B. Hargrave, R. Lake, D. Muir, R. Shearer, B. Tracey, T. Bidleman. 1992. Arctic contaminants: sources, occurrence and pathways. *Sci. Tot. Environ.* 122, 1-74.

Beavers, J.; Frank, P.; Jaber, M. 1987. Endosulfan Technical Sub- stance (Code: HOE 002671 OI ZD95 0005): A One-generation Reproduction Study with the Mallard (*Anas platyrhynchos*): Lab Project No. 125-137. Unpublished study prepared by Wildlife Inter- national Ltd. 146 p.

Bengston Nash SM, Poulsen AH, Kawaguchi S, Vetter W, Schlabach M. 2008. Persistent organohalogen contaminant burdens in Antarctic krill (*Euphausia superba*) from the eastern Antarctic sector: A baseline study. *Sci Total Environ* 407(1):304-14.

Bentzen TW, Muir DCG, Amstrup SC, O'Hara TM. 2008. Organohalogen concentrations in blood and adipose tissue of Southern Beaufort Sea polar bears. *Sci Total Environ* 406:352-67.

Berntssen MH, Glover CN, Robb DH, Jakobsen JV, Petri D. 2008. Accumulation and elimination kinetics of dietary endosulfan in Atlantic salmon (*Salmo salar*). *Aquat Toxicol.*; 86(1):104-11.

Bidleman, D.F., Cotham, W.E., Addison, R.F., Zinck, M.E. 1992. Organic contaminants in the Northwest Atlantic atmosphere at Sable Island, Nova Scotia 1988-89. *Chemosphere* 24, 1389-1412.

Bidleman, T.F., R.L. Falconer, M.D. Walla. 1995. Toxaphene and other organochlorine compounds in air and water at Resolute Bay, N.W.T. Canada. *Sci. Tot. Environ.* 160/161, 55-63

Blais, J.M., D.W. Schindler, D.C.G. Muir, L.E. Kimpe, D.B. Donals, B. Rosenberg. 1998. Accumulation of Persistent Organochlorine Compounds in mountains of Western. Canada. *Nature* 395: 585-588

Bostanian Noubar J; Akalach Mohammed 2004. The contact toxicity of indoxacarb and five other insecticides to *Orius insidiosus* (Hemiptera: Anthocoridae) and *Aphidius colemani* (Hymenoptera: Braconidae), beneficials used in the greenhouse industry. *Pest management science*; 60(12):1231-6

Braune BM, Outridge PM, Fisk AT, Muir DCG, Helm PA, Hobbs K, Hoekstra PF, Kuzyk ZA, Kwan M, Letcher RJ, Lockhart WL, Norstrom RJ, Stern GA, Stirling I. 2005. Persistent organic pollutants and mercury in marine biota of the Canadian Arctic: an overview of spatial and temporal trends. *Sci Total Environ* 351-352: 4-56.

Brown, Trevor N., and Frank Wania. 2008. Screening Chemicals for the Potential to be Persistent Organic Pollutants: A Case Study of Arctic Contaminants. *Environ. Sci. Technol.*, 42 (14), 5202-5209.

Brun G.L. Howell G.D. H. J. O'Neil. 1991. Spatial and temporal patterns of organic contaminants in wet precipitation in Atlantic Canada. *Environ. Sci. Technol.* 25:1249-1261.

Brunelli E, Bernabò I, Berg C, Lundstedt-Enkel K, Bonacci A, Tripepi S. 2009. Environmentally relevant concentrations of endosulfan impair development, metamorphosis and behaviour in *Bufo bufo* tadpoles. *Aquat Toxicol.*; 91(2):135-42

Brunk, R. 1989. Endosulfan – substance technical (Code: Hoe 002671 0I ZD96 0002) Testing for toxicity by repeated oral administration (1-year feeding study) to Beagle dogs.

Buerkle 2003 Endosulfan - Evaluation of estimation of half life in atmosphere MRID 46029902 END. CropLife submission.

Bury D. 1997. Neurotoxicological screening in Wistar rats. July 1997. Described and reviewed in the EU dossier.

Carrera G., P., Fernandez, J.O. Grimalt, M. Ventura, L. Camarero,, J. Catalan, U. Nickus, H. Thies, R. Psenner. 2002. Atmospheric deposition of organochlorine compounds to remote high mountain lakes of Europe. *Environ. Sc. Technol.* 36: 2581-2588.

Carroll J, Savinov V, Savinova T, Dahle S, McCrear R, Muir DC. 2008. PCBs, PBDEs and pesticides released to the Arctic Ocean by the Russian rivers Ob and Yenisei. *Environ Sci Technol.*; 42(1):69-74

CDPR (California Department of Pesticides) Memorandum 2000. Recommendation for priority surface water monitoring studies on selected pesticides.
<http://www.cdpr.ca.gov/docs/emon/pubs/ehapreps/m080200.pdf>

Chan MP, Morisawa S, Nakayama A, Kawamoto Y, Sugimoto M, Yoneda M. 2006. A physiologically based pharmacokinetic model for endosulfan in the male Sprague-Dawley rats. *Environ Toxicol.*;21(5):464-78.

Chatterjee S, Kumar V, Majumder CB, Roy P. 2008. Screening of some anti-progestin endocrine disruptors using a recombinant yeast based in vitro bioassay. *Toxicol In Vitro.*; 22(3):788-98

- Chernyak S.M., C.P. Rice, L.L. McConnell. 1996. Evidence of currently-used pesticides in air, ice, fog, seawater and surface. microlayer in the Bering and Chukchi Seas. *Marine Pollution Bulletin* 22 (5), 410-419
- Chowdhury AG, Das C, Kole RK, Banerjee H, Bhattacharyya A. 2007. Residual fate and persistence of endosulfan (50 WDG) in Bengal gram (*Cicer arietinum*). *Environ Monit Assess.*; 132(1-3):467-73.
- Ciglasch H, Busche J, Amelung W, Totrakool S, Kaupenjohann M. 2006. Insecticide dissipation after repeated field application to a Northern Thailand Ultisol. *J Agric Food Chem.*; 54(22):8551-9.
- Ciglasch H, Busche J, Amelung W, Totrakool S, Kaupenjohann M. 2008. Field aging of insecticides after repeated application to a northern Thailand ultisol. *J Agric Food Chem.*; 56(20):9555-62.
- Deger A.B., Gremm T.J., Frimmel F.H., Mendez L.. 2003. Optimization and application of SPME for the gas chromatographic determination of endosulfan and its major metabolites in the ng:L-1 range in aqueous solutions. *Anal. Bioanal. Chem.* 376:61-68.
- DeLorenzo ME, Taylor LA, Lund SA, Pennington PL, Strozier ED, Fulton MH. 2002. Toxicity and bioconcentration potential of the agricultural pesticide endosulfan in phytoplankton and zooplankton. *Arch Environ Contam Toxicol.*; 42(2):173-81.
- Dickie, S.M.; MacKenzie, K.M.; Rao, G.N. 1981. Teratology Study with FMC 5462 in Rabbits
- Donaubauer, H.H. Endosulfan – substance technical (Code: Hoe 002671 0I ZD97 0003) Carcinogenicity study in mice 24 months feeding study
- Drooge van, B.;L., J.O. Grimalt. 2004. Atmospheric semivolatile organochlorine compounds in European High-Mountain areas (Central Pyrenees and High Tatra). *Environ. Sci. Technol.* 38: 3525-3532
- Durukan P, Ozdemir C, Coskun R, Ikizceli I, Esmoğlu A, Kurtoglu S, Guven M. 2009. Experiences with endosulfan mass poisoning in rural areas. *Eur J Emerg Med.*; 16(1):53-6.
- Edwards, J.A.; Reid, Y.J.; Offer, J.M., Almond, R.H., Gibson, W.A. 1984. Effect of Endosulfan-Technical (Code: Hoe 02671 0I AT209) on Reproductive Function of Multiple Generations in the Rat
- EFSA, 2005. Opinion of the Scientific Panel on Contaminants in the Food Chain on a request from the Commission related to endosulfan as undesirable substance in animal feed Question N° EFSA-Q-2003-066 *The EFSA Journal* 234, 1 – 31
- Evans MS, Muir D, Lockhart WL, Stern G, Ryan M, Roach P. 2005. Persistent organic pollutants and metals in the freshwater biota of the Canadian Subarctic and Arctic: an overview. *Sci Total Environ* 351-352:94-147.
- Export Import Data Bank. Export: Commodity-wise all countries. Commodity 38081018. Endosulfan technical. Government of India, Ministry of Commerce & Industry, Department of Commerce, <http://commerce.nic.in/eidb/Default.asp>.
- FAO/WHO (Food and Agriculture Organization/World Health Organization), 1998. Joint FAO/WHO Meeting on Pesticide Residues (JMPR). Endosulfan, part II, toxicology. Available at: <http://www.inchem.org/documents/jmpr/jmpmono/v098pr08.htm>
- Girón-Pérez MI, Montes-López M, García-Ramírez LA, Romero-Bañuelos CA, Robledo-Marengo ML. 2008. Effect of sub-lethal concentrations of endosulfan on phagocytic and hematological parameters in Nile tilapia (*Oreochromis niloticus*). *Bull Environ Contam Toxicol.*; 80(3):266-9

- Glover CN, Petri D, Tollefsen KE, Jørum N, Handy RD, Berntssen MH. 2007. Assessing the sensitivity of Atlantic salmon (*Salmo salar*) to dietary endosulfan exposure using tissue biochemistry and histology. *Aquat Toxicol.*; 84(3):346-355
- Gregor, D.J., W. Gummer. 1989. Evidence of atmospheric transport and deposition of organochlorine pesticides and PCB in Canadian Arctic snow. *Environ. Sci. Technol.* 23 (5), 561-565
- Hack R.; Ebert E.; Leist K.-H.1995. Chronic toxicity and carcinogenicity studies with the insecticide Endosulfan in rats and mice. No.A55880. *Fd Chem. Tox*, 33,11, 941-950
- Hafner, W. D.and Hites, R. A. 2003. Potential sources of pesticides, PCBs, and PAHs to the atmosphere of the Great Lakes. *Environ. Sci. Technol.* 37: 3764-3773.
- Hageman KJ, Simonich SL, Campbell DH, Wilson GR, Landers DH. 2006. Atmospheric deposition of current-use and historic-use pesticides in snow at national parks in the western United States. *Environ Sci Technol.*; 40(10):3174-80
- Halsall, C. J., Bailey, R., Stern, G. A., Barrie, L. A., Fellin, P., Muir, D. C. G., Rosenberg, B., Rovinsky, F. Y., Kononov, E. Y., and Pastukhov, B. 1998. Multiyear observations of organohalogen pesticides in the Arctic atmosphere. *Environmental Pollution* 102:51-62.
- Hansen, D.J., and G.M. Cripe. 1991. Interlaboratory Comparison of the Early Life-Stage Toxicity Test Using Sheepshead Minnows (*Cyprinodon variegatus*). In: M.A.Mayes and M.G.Barron (Eds.), *Aquatic Toxicology and Risk Assessment*, Vol.14, ASTM STP 1124, Philadelphia, PA 14:354-375
- Harman_Fetcho, J. A. , C. J. Hapeman, L. L. McConnell, T. L. Potter, C. P. Rice, Sadeghi A.A., Ramona Smith R.D., Bialek, Sefton K.A. and B. A. Schaffer. 2005. Pesticide occurrence in selected South Florida canals and Biscayne Bay during high agriculture activity. *J. Agric. Food Chem.* 53: 6040-6048.
- Harman-Fetcho, J.A., L.L. McConnell, C.P. Rice, and J.E. Baker. 2000. Wet deposition and air-water gas exchange of currently used pesticides to a subestuary of the Chesapeake Bay. *Environ. Sci. Technol.* 34:1462-1468.
- Hobbs, K.E., D.C.G. Muir, E.W. Born, R. Dietz, T. Haug, T. Metcalfe, C. Metcalfe, N. Øien. 2003. Levels and patterns of persistent organochlorines in minke whale (*Balaenoptera acutorostrata*) stocks from the North Atlantic and European Arctic *Environmental Pollution* 121 (2), 239-252
- Hoh, E.; Hites, R. A. 2004. Sources of toxaphene and other organochlorine pesticides in North America as determined by air measurements and potential source contribution function analyses. *Environ. Sci. Technol.* 38: 4187-4194.
- Hung, H., Halsall, C. J., Blanchard, P., Li, H. H., Fellin, P., Stern, G., and Rosenberg, B. 2002. Temporal trends of organochlorine pesticides in the Canadian Arctic atmosphere. *Environ Sci Technol* 36(5): 862-868.
- Jantunen L.M.Mann T.F. Bidleman. 1998. Organochlorine Pesticides and Enantiomers of Chiral Pesticides in the Arctic Ocean Water. *Arch. Environ. Contam. Toxicol.* 35 218-228
- Jergentz S, Mugni H, Bonetto C, Schulz R. 2004. Runoff-related endosulfan contamination and aquatic macroinvertebrate response in rural basins near Buenos Aires, Argentina. *Arch Environ Contam Toxicol.*; 46(3):345-52.
- Jia, H. L. Y.F. Li, D. Wang, M. Yang, J. Ma and D. Cai, 2009b, Endosulfan in China 2. Emissions and residues, *Environmental Science and Pollution Research*, In Review, 16:302-311.
- Jia, H. L., Y.F. Li, D. G. Wang, D. Cai, M. Yang, J. Ma and J. Hu, 2009a, Endosulfan in China 1. Gridded Usage Inventories, *Environmental Science and Pollution Research*, 16:295-301.

- Jones DK, Hammond JI, Relyea RA, 2009. Very highly toxic effects of endosulfan across nine species of tadpoles: Lag effects and family-level sensitivity. *Environ Toxicol Chem.* 2009 Apr 9:1.
- Jones W. 2002. Degradation of [14C] Endosulfan in two aerobic water/sediment systems. Reference: C022921. EU Additional Information Dossier.
- Jones W. 2003. Degradation of [14C] Endosulfan in two aerobic water/sediment systems (under acid conditions). Reference: C031060. EU Additional Information Dossier.
- Jonsson, C.M., and M.C.F. Toledo. 1993. Bioaccumulation and Elimination of Endosulfan in the Fish Yellow Tetra (*Hyphessobrycon bifasciatus*) *Bull. Environ. Contam. Toxicol.* 50(4):572-577
- Kang HS, Gye MC, Kim MK. 2008. Effects of endosulfan on survival and development of *Bombina orientalis* (Boulenger) embryos. *Bull Environ Contam Toxicol.*; 81(3):262-5
- Kelly, B.C. 2006. Bioaccumulation Potential of Organic Contaminants in an Arctic Marine Food Web. Simon Fraser University. 439p.
- Kelly, Barry C., and Frank A. P. C. Gobas. 2003. An Arctic Terrestrial Food-Chain Bioaccumulation Model for Persistent Organic Pollutants. *Environ. Sci. Technol.*, 37 (13), 2966-2974
- Kelly, Barry C., Michael G. Ikonomou, Joel D. Blair, Anne E. Morin, Frank A. P. C. Gobas. 2007. Food web-specific biomagnification of persistent organic pollutants. *Science* 317:236-9.
- Kelly, Barry C., Michael G. Ikonomou, Joel D. Blair, Anne E. Morin, Frank A. P. C. Gobas. 2007. Food web-specific biomagnification of persistent organic pollutants. *Science* 317:236-9. Supporting information.
- Kumar S, Habib K, Fatma T. 2008. Endosulfan induced biochemical changes in nitrogen-fixing cyanobacteria. *Sci Total Environ.* 2008 Sep 15;403(1-3):130-8
- Laabs V, Wehrhan A, Pinto A, Dores E, Amelung W. 2007. Pesticide fate in tropical wetlands of Brazil: an aquatic microcosm study under semi-field conditions. *Chemosphere.*; 67(5):975-89.
- LeNoir JS, McConnell LL, Fellers GM, Cahill TM, Seiber JN. 1999. Summertime transport of current-use pesticides from California's Central Valley to the Sierra Nevada Mountain Range, USA. *Environ Toxicol Chem* 18:2715-2722.
- Leys, J.F., F.J. Larney, J.F. Müller, M.R. Raupach, M.R. McTainsh, G.H. Lynch. 1998. Anthropogenic dust and endosulfan emissions on cotton farm in northern New South Wales, Australia. *Sci. Tot. Environ.* 220, 55-70.
- Li J, Zhu T, Wang F, Qiu XH, Lin WL. 2006. Observation of organochlorine pesticides in the air of the Mt. Everest region. *Ecotoxicol Environ Saf* 63(1):33-41.
- Li, Y. F. and R. MacDonald. 2005. Sources and pathways of selected organochlorine pesticides to the Arctic and the effect of pathway divergence on HCH trends in biota: A review, *the Science of the Total Environment*, 342, 87-106.
- Mackay N, Arnold D. 2005. Evaluation and Interpretation of Environmental Data on Endosulfan in Arctic Regions. Draft Report for Bayer CropScience Report Number CEA.107.
- MacKenzie, Karen M.; Rao, G.N.; Thomson, Gordon M. 1980. Final Report, Teratology Study with FMC 5462 in Rats
- McConnell, L.L., J.S. Lenoir, S. Datta, and J.N. Seiber. 1998. Wet deposition of current use pesticides in the Sierra Nevada mountain range, California. *Environ. Toxicol. Chem.* 17(10), 1908-1916.

Menone ML, Pesce SF, Díaz MP, Moreno VJ, Wunderlin DA. 2008. Endosulfan induces oxidative stress and changes on detoxication enzymes in the aquatic macrophyte *Myriophyllum quitense*. *Phytochemistry*; 69(5):1150-7

Miranda-Filho KC, Metcalfe TL, Metcalfe CD, Robaldo RB, Muelbert MMC, Colares EP, Martinez PE, Bianchini A. 2007. Residues of persistent organochlorine contaminants in southern elephant seals (*Mirounga leonina*) from Elephant Island, Antarctica. *Environ Sci Technol* 41:3829-35.

Muehlberger, B., Lemke, G., 2004. Endosulfan and metabolites, partition coefficient 1-octanol/water (HPLC-method), endosulfan hydroxy carboxylic acid, sodium salt; endosulfan hydroxy ether; endosulfan lactone; endosulfan sulfate; endosulfan ether; beta-endosulfan, alpha-endosulfan. Bayer CropScience, Doc. No. C042001.

Muir, Derek C.G., Camilla Teixeira, and Frank Wania. 2004. Empirical and modelling evidence of regional atmospheric transport of current-use pesticides.. *Environmental Toxicology and Chemistry*, Vol. 23, No. 10, pp. 2421–2432

Naqvi, S.M., and D.J. Newton. 1990. Bioaccumulation of Endosulfan (Thiodan R Insecticide) in the Tissues of Louisiana Crayfish, *Procambarus clarkii*. *J. Environ. Sci. Health B25(4)*:511-526

Offer, John M. 1985. Addendum to HST 204 Effect of Endosulfan-Technical (Code: Hoe 02671 0I AT209) on the Reproductive Function of Multiple Generations in the Rat Histopathological Review of the Kidneys in Adult Rats of the F1B Generation

Palma P, Palma VL, Matos C, Fernandes RM, Bohn A, Soares AM, Barbosa IR. 2009. Effects of atrazine and endosulfan sulfate on the ecdysteroid system of *Daphnia magna*. *Chemosphere.*; 74(5):676-81.

Pennington, P.L., DeLorenzo, M.E., Lawton, J.C., Strozier, E.D., Fulton, M.H., and G.I. Scott. 2004. Modular Estuarine Mesocosm Validation: Ecotoxicological Assessment of direct effects with a model compound endosulfan. *J. Exp. Mar. Biol. Ecol.* 298: 369-387.

Performance of Chemical & Petrochemical Industry at a Glance (2001-2007). Monitoring and Evaluation Division, Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Government of India, New Delhi. <http://www.chemicals.nic.in/stat0107.pdf>.

Petri D, Glover CN, Ylving S, Kolås K, Fremmersvik G, Waagbø R, Berntssen MH. 2006. Sensitivity of Atlantic salmon (*Salmo salar*) to dietary endosulfan as assessed by haematology, blood biochemistry, and growth parameters. *Aquat Toxicol.*; 80(3):207-16

Powell A, Mackay D, Webster E, Arnot JA. 2009. Modeling bioaccumulation using characteristic times. *Environ Toxicol Chem.*:1 28:272-278

Rajendran, N., and V.K. Venugopalan. 1991. Bioconcentration of Endosulfan in Different Body Tissues of Estuarine Organisms Under Sublethal Exposure. *Bull. Environ. Contam. Toxicol.* 46(1):151-158

Relyea, R. 2008. "A cocktail of contaminants: how mixtures of pesticides at low concentrations affect aquatic communities." *Oecologica*, 159(2): 363–376

Ruckman, S.A.; Waterson, L.A.; Crook, D. 1989. Endosulfan, active ingredient technical (code:Hoe 002671 0I ZD97 0003) Combined chronic toxicity / cancerogenicity study (104-week feeding in rats) (Final report)

Schanne, 2002. [14C]-Endosulfan formulated as emulsifiable concentrate (352g/l endosulfan): outdoor aquatic microcosm study of the environmental fate and ecological effects. Springborn Laboratories. 500pp.

Scott, G.I., H. Fulton, E. F. Wirth, G. T. Chandler, P.B. Key, J.W. Daugomah, D. Bearden, K. W. Chung, E. D. Strozier, Delorenzo, S. Sivertsen, A. Dias, M. Sanders, J. M. Macauley, L.R. Godman, M. W. Lacroix, G. W. Thayer, and J. Kucklick. 2002. Toxicological Studies in Tropical Ecosystems: an ecotoxicological Risk Assessment of Pesticide Runoff in South Florida Estuarine Ecosystems. *J. Agric. Food Chem.* 50:4400-4408.

Shen L., F. Wania, F. Lei, Y.D., D.C.G Muir and T. Bidleman. 2005. Atmospheric distribution and long range transport behavior of organochlorine pesticides in north America. *Environ. Sci. and Technol.* 39: 409-420

Shenoy K, Cunningham BT, Renfroe JW, Crowley PH. 2009. "Growth and survival of Northern leopard frog (*Rana pipiens*) tadpoles exposed to two common pesticides". *Environ. Toxicol. Chem.*: 10.1897/08-306.1

Sparling DW, Fellers GM, 2009. Toxicity of two insecticides to California, USA, anurans and its relevance to declining amphibian populations. *Environ. Toxicol. Chem.* Epublished March 1, 2009

Stoker C, Beldoménico PM, Bosquiazzo VL, Zayas MA, Rey F, Rodríguez H, Muñoz-de-Toro M, Luque EH. 2008. Developmental exposure to endocrine disruptor chemicals alters follicular dynamics and steroid levels in *Caiman latirostris*. *Gen Comp Endocrinol.*; 156(3):603-12

Sun P., P. Blanchard, K. B. Kenneth, and R.A. Hites. 2006. Atmospheric organochlorine pesticide concentrations near the Great Lakes: temporal and spatial trends. *Environ. Sci. and Tech.* 40: 6587-6593

Survey of Chemical Contaminants in Fish, Invertebrates, and Plants Collected in the Vicinity of Tyonek, Seldovia, Port Graham, and Nanwalek in Cook Inlet, Alaska. December 2003. Prepared by the U.S. Environmental Protection Agency Region 10 Office of Environmental Assessment (EPA 910-R-01-003).
<http://yosemite.epa.gov/r10/oea.nsf/Risk+Assessment/Cook+Inlet+Seafood+Study>.

Tellez-Bañuelos MC, Santerre A, Casas-Solis J, Bravo-Cuellar A, Zaitseva G. 2008. Oxidative stress in macrophages from spleen of Nile tilapia (*Oreochromis niloticus*) exposed to sublethal concentration of endosulfan. *Fish Shellfish Immunol.*

Toledo, M.C.F., and C.M. Jonsson. 1992. Bioaccumulation and Elimination of Endosulfan in Zebra Fish (*Brachydanio rerio*). *Pestic. Sci.*36(3):207-211. UNEP Chemicals. Regionally Based Assessment of Persistent Toxic Substances – North America Regional report, December 2002.

UNEP-POPS-POPRC-END-08-EU-A6.English

USEPA, 2007. Appendix 1 to 2007 Addendum: Environmental Fate and Ecological Risk Assessment of Endosulfan. USEPA, 101pp.

USEPA, 2007. Appendix 1 to 2007 Addendum: Environmental Fate and Ecological Risk Assessment of Endosulfan. USEPA, page 24.

Varayoud J, Monje L, Bernhardt T, Muñoz-de-Toro M, Luque EH, Ramos JG. 2008. Endosulfan modulates estrogen-dependent genes like a non-uterotrophic dose of 17beta-estradiol. *Reprod Toxicol.*; 26(2):138-45.

Vig K, Singh DK, Sharma PK. 2006. Endosulfan and quinalphos residues and toxicity to soil microarthropods after repeated applications in a field investigation. *J Environ Sci Health B.*; 41(5):681-92

Vilanova R, Fernández P, Martínez C, Grimalt JO. 2001. Organochlorine pollutants in remote mountain lake waters. *J Environ Qual.* Jul-Aug;30(4):1286-95.

Vorkamp K, Riget F, Glasius M, Pecseli M, Lebeuf M, Muir D. 2004. Chlorobenzenes, chlorinated pesticides, coplanar chlorobiphenyls and other organochlorine compounds in Greenland biota. *Sci Total Environ* 331(1-3):157-75.

Watson CS, Bulayeva NN, Wozniak AL, Alyea RA. 2007. Xenoestrogens are potent activators of nongenomic estrogenic responses. *Steroids*. ;72(2): 124–134

Weber J, Halsall CJ, Muir DC, Teixeira C, Burniston DA, Strachan WM, Hung H, Mackay N, Arnold D, Kylin H. 2006. Endosulfan and gamma-HCH in the arctic: an assessment of surface seawater concentrations and air-sea exchange. *Environ Sci Technol.*; 40(24):7570-6

Wessel N, Rousseau S, Caisey X, Quiniou F, Akcha F. 2007. Investigating the relationship between embryotoxic and genotoxic effects of benzo[a]pyrene, 17alpha-ethinylestradiol and endosulfan on *Crassostrea gigas* embryos. *Aquat Toxicol.*; 85(2):133-42

Weston D.P. J. You., and M.J. Lydy. 2004. Distribution and toxicity of sediment-associated pesticides in agriculture-dominated water bodies of California's Central Valley. *Environ. Sci. and Tech.* 38: 2752-2759