

AR 201-12604



Bayer Corporation  
100 Bayer Road  
Pittsburgh, PA 15205-9741  
Phone: 412 777-2000

May 4, 2000

Mr. Charles Auer  
Director, Chemical Control Division (7405)  
Office of Pollution Prevention and Toxics  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460

RE: Ortho-phenylphenol: A FIFRA Substance on the HPV List

Dear Charlie:

Ortho-phenylphenol is currently on the U.S. HPV list and is also registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and used in the US only as a pesticide or as a pesticide intermediate to manufacture another pesticide. As you know in order to obtain a FIFRA registration, registrants must conduct and submit to the EPA extensive health and environmental effects testing. The EPA then must carefully review the data, and make a determination that the intended use of the substance will not cause unreasonable adverse effects. The data requirements to support this determination are extensive and go well beyond the screening-level requirements of the OECD/SIDS and the U.S. HPV programs<sup>1</sup>

Bayer proposes that this substance receive a designation of "1", indicating that the chemical is not considered a candidate for testing under the HPV Challenge Program. To support this, enclosed are three lists of studies, including the EPA MRID numbers, which have previously been submitted to the Office of Pesticide Programs. The EPA would not encourage replication of these studies, as it is a waste of animals and other resources. Summaries of each listed study should be available from the Office of Pesticide Programs.

Sincerely,

Donald W. Lamb  
Vice President of Product Safety and Regulatory Affairs

---

<sup>1</sup> FIFRA also contains exclusive use, confidentiality and data compensation provisions that restrict access to and use of test data by non-registrants (and their agents). These provisions are designated to protect the significant investment in research, development and intellectual property required of companies that are able to obtain a FIFRA registration.

PDMS Search - Display MRID and Citation

Last Search Submitter: 59265

Citations Selected: 16

- 40976500 Mobay Corp. (19889) Submission of Two-generation Dietary Study in Partial Fulfillment of the Requirements of EPA Data Call-in for Orthophenylphenol. Transmittal of 1 study.
- 40976501 Eigenberg, D. (1989) Two-generation Dietary Reproduction Study in Rats Using Orthophenylphenol: Study No. 85-671-02. Unpublished study prepared by Mobay Corp. 2111 p.
- 41656400 Dow and Mobay (1990) Submission of Toxicity Data in Support of Phase 2 Response for Ortho-phenylphenol. Transmittal of 1 study.
- 41656401 Cosse, P.; Stebbins, K.; Stott, W.; et al. (1990) Ortho-phenylphenol: Palatability/Probe, Four-week and One-year Oral Toxicity Studies in Beagle Dogs: Lab Project Number: K-001024-038: K-001024-038A: K-001024-039. Unpublished study prepared by Dow Chemical Co., Health and Environmental Sciences. 321 p.
- 41729400 Mobay Corp./Dow Chemical Co. (1990) Submission of Chronic Toxicity Data in support of Orthophenylphenol Phase 2 and Phase 3 Response. Transmittal of 1 study.
- 41729401 Eigenberg, D. (1990) Two-Generation Dietary Reproduction Study in Rats Using Orthophenyl Phenol: Lab Project Number: 85-671-02. Unpublished study prepared by Mobay Corp. 2696 p.
- 41925000 Dow Chemical Co. (1991) Submission of toxicity data to support the reregistration of products containing Ortho-phenylphenol. Transmittal of 3 studies.
- 41925001 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): 13-Day Range-finding Oral Gavage Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-043. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 34 p.
- 41925002 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): Gavage Teratology Probe Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-044. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 77 p.
- 41925003 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): Gavage Teratology Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-045. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 309 p.
- 42881900 The Dow Chemical Co. and Miles, Inc. Consortium (1993) Submission

of Subchronic Toxicity Data in Support of Reregistration of Products Containing 2-Phenylphenol. Transmittal of 1 Study.

- 42881901 Zempel, J.; Szabo, J. (1993) Ortho-Phenylphenol: 21-Day Repeated Dermal Dose Study of Systemic Toxicity in Fischer 344 Rats: Lab Project Number: K-001024-056. Unpublished study prepared by Dow Chemical-Lake Jackson Research Center. 208 p.
- 43545500 The Dow Chemical Co./Miles Inc. Consortium (1995) Submission of Toxicology Data in Support of Reregistration of 2-Phenylphenol and Salts. Transmittal of 1 Study.
- 43545501 Quast, J.; McGuirk, R. (1995) Ortho-Phenylphenol: Two-year Dietary Chronic Toxicity/Oncogenicity Study in B6C3F1 Mice: Lab Project Number: K-001024-047. Unpublished study prepared by The Dow Chemical Co. 1089 p.
- 43954300 Bayer Corp./Dow Chemical Co. Consortium (1996) Submission of Toxicology Data in Support of FIFRA 6(a)(2) for o-Phenylphenol. Transmittal of 1 Study.
- 43954301 Wahle, B.; Christenson, W. (1996) Technical Grade ortho-Phenylphenol: A Combined Toxicity/Oncogenicity Testing Study in the Rat: Lab Project Number: 7908: 92-272-SC. Unpublished study prepared by Bayer Corp. 4282 p.

\*\*\* END OF OUTPUT \*\*\*

(c)Copyright 1999 Purdue Research Foundation. All rights reserved.

PDMS Search - Display MRID and Citation

Last Search Submitter: BAYER

Citations Selected: 28

- 00048552 Weidle, H. (1976) The Technical Conservation of Coolants in the Metalworking Industry. A translation of: Die Technische Konservierung von Kuhlmitteln in der Metallverarbeitenden Industrie. Seifen-ole-Fette-Wachse 99(25):741. (Unpublished study including German text, received Jan 24, 1977 under 39967-1; submitted by Mobay Chemical Corp., Pittsburgh; Pa.; CDL:227654-G)
- 00071273 Mobay Chemical Corporation (1977) Preventol O Extra (Mobay Ortho-phenylphenol): Product Information. Pittsburgh, Pa: Mobay. (Also~In~unpublished submission received Jan 12, 1981 under 39967-3; CDL:244461-F)
- 00072103 Hodge, H.C.; Maynard, E.A.; Blanchet, H.J., Jr.; et al. (1952) Toxicological studies of orthophenylphenol (Dowicide^(R) I 1). Journal of Pharmacology and Experimental Therapeutics 104(2): 202-210. (Also~In~unpublished submission received Aug 21, 1956 under PP0073; submitted by Vis-Ko, Inc., Sumner, Wash.; CDL: 090070-A)
- 00104994 Mobay Chemical Corp. (1972?) Mobay Ortho-phenylphenol: Animal Toxicity Data . Summary of studies 236808-B through 236808-D and 236808-G. (Unpublished study received Jan 15, 1979 under 39967-2; CDL:236808-A)
- 00104996 Mihail, F.; Kimmerle, G. (1977?) Mobay Ortho-phenylphenol Determination of Inhalation Toxicity. (Translation; unpublished study received Jan 15, 1979 under 39967-2; prepared by Farbenfabriken Bayer, AG, W. Ger., submitted by Mobay Chemical Corp., Pittsburgh, PA; CDL:236808-C)
- 00115965 Mobay Chemical Corp. (1978) Literature References: Toxicity of Ortho-phenylphenol: Search of Toxline, Toxback and Cancerline Data Bases. (Unpublished study received Jan 15, 1979 under 39967-2; CDL:236808-F)
- 42941200 Miles Inc. (1993) Submission of Toxicology Data in Support of the Application for Registration of Preventol WB. Transmittal of 2 studies.
- 42941201 Bomhard, E. (1993) Preventol WB: Acute Oral Toxicity Study in Male and Female Wistar Rats: Lab Project Number: T3050198: 22330. Unpublished study prepared by Bayer AG. 45 p.
- 42941202 Kolb, J. (1993) Preventol WB: Study for Skin Sensitization Effect on Guinea Pigs (Buehler Test): Lab Project Number: T9050194: 22327. Unpublished study prepared by Bayer AG. 42 p.
- 42974100 Miles Inc. (1993) Submission of Toxicity Data for Preventol WB

in Support of Registration. Transmittal of 1 Study.

- 42974101 Maertins, T. (1993) Preventol WB: Acute Inhalation Toxicity in the Rat: Lab Project Number: T0050195: 22448. Unpublished study prepared by BAYER AG, Fachbereich Toxikologie. 114 p.
- 43263300 Miles Inc. (1994) Submission of toxicity data in support of the FIFRA 6(a)(2) requirements for ortho-phenylphenol. Transmittal of 1 study.
- 43263301 Lamb, D. (1994) Letter Sent to Registration Div., OPP dated June 1, 1994: Ortho-Phenylphenol: Miles 49-155 ortho-phenylphenol: (2-year dietary chronic tox/oncog. study in mice: preliminary results). Prepared by Miles Inc. 4 p.
- 43764600 Bayer Corp. (1995) Submission of Toxicity Data in Support of the Application for Registration of Preventol WB. Transmittal of 1 Study.
- 43764601 Shiotsuka, R. (1995) Preventol WB: Acute Oral Toxicity Study in Male and Female Wistar Rats: Supplement. Unpublished study prepared by Bayer AG. 10 p.
- 43797500 Bayer Corp. (1995) Submission of Toxicology Data in Support of the Registration of Preventol WB. Transmittal of 1 Study.
- 43797501 Kroetlinger, F.; Vohr, H. (1993) Validation of the Buehler Test Method Used by the Department of Toxicology, Bayer AG, Performed on Guinea Pigs of the Strain DHPW with 2-Mercaptobenzothiazole: (Positive Control Data): Lab Project Number: T 0050285: 22682. Unpublished study prepared by Bayer AG. 39 p.
- 43928800 Bayer Corp., Organic Products Div. (1996) Submission of Toxicology Data in Support of the Reregistration of 2-Phenylphenol and Salts. Transmittal of 1 Study.
- 43928801 Eigenberg, D.; Lake, S. (1995) A Two-Generation Dietary Reproduction Study in Sprague-Dawley Rats Using Technical Grade ortho-Phenylphenol: Lab Project Number: 93-672-VX: 7788. Unpublished study prepared by Bayer Corp. 1213 p.
- 44197600 Bayer Corp. (1997) Submission of Toxicity Data in Support of the Reregistration of ortho-Phenylphenol. Transmittal of 2 Studies.
- 44197601 Christenson, W.; Wahle, B.; Cohen, S. (1996) Technical Grade ortho-Phenylphenol: A Special Subchronic Dietary Study to Examine the Mechanism of Urinary Bladder Carcinogenesis in the Male Rat: Lab Project Number: 92-972-MS: 8042. Unpublished study prepared by Bayer Corp. and University of Nebraska Medical Center. 47 p.
- 44197602 Christenson, W.; Wahle, B.; Cohen, S. (1996) Technical Grade

ortho-Phenylphenol: A Special Subchronic Dietary Study to Examine the Mechanism of Urinary Bladder Carcinogenesis in the Male Rat: Supplement: Lab Project Number: 92-972-MS: 8042-1. Unpublished study prepared by Bayer Corp. and University of Nebraska Medical Center. 11 p.

- 44697000 Bayer Corporation (1998) Submission of Toxicity Data in Support of the Registration of Preventol O Extra. Transmittal of 1 Study.
- 44697001 Eigenberg, D. (1998) A Two-Generation Dietary Reproduction Study in Sprague Dawley Rats Using Technical Grade Ortho-Phenylphenol: Lab Project Number: 93-672-VX: 7788. Unpublished study prepared by Bayer Corporation. 576 p.
- 44832200 Bayer Corporation (1999) Submission of Toxicity Data in Support of the Registration of Ortho-Phenylphenol. Transmittal of 1 Study.
- 44832201 Wahle, B.; Christenson, W. (1999) Technical Grade Ortho-Phenylphenol: A Combined Chronic Toxicity/Oncogenicity Testing Study in the Rat: Lab Project Number: 7908: 7908-2: 92-272-SC. Unpublished study prepared by Bayer Corporation. 8 p.
- 44852700 Bayer Corporation (1999) Submission of Toxicity Data in Support of the Registration of Technical Grade Ortho-Phenylphenol. Transmittal of 1 Study.
- 44852701 Wahle, B.; Christenson, W. (1999) Technical Grade ortho-Phenylphenol: A Combined Chronic Toxicity/Oncogenicity Testing Study in the Rat: Lab Project Number: 92-272-SC. Unpublished study prepared by Bayer Corp. 964 p.

\*\*\* END OF OUTPUT \*\*\*

(c) Copyright 1999 Purdue Research Foundation. All rights reserved.

PDMS Search - Display MRID and Citation

Last Search Submitter: DOW

Citations Selected: 108

- 00007412 Dow Chemical Company (1964) Summary of Toxicological Studies. (Unpublished study received Apr 1, 1970 under 464-79; CDL:008926-G)
- 00053852 Dow Chemical Company (1964) Summary of Toxicological Studies. (Unpublished study received Jul 29, 1970 under 464-125; CDL:118768-B)
- 00058624 Ogata, A.; Ando, H.; Kubo, Y.; et al. (1978) Teratological Tests of Ortho-phenylphenol and Its Sodium salt in Mice. A translation of: Orutofenirufenoru oyobi sono natoryumu-en no mausu o mochiita aikikeisei shiken. Ann. Rep. Tokyo Metropolitan Research Laboratory of Public Health 29(2):89-96. (Unpublished study, including published Japanese text, received Feb 23, 1981 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:244412-A)
- 00067616 John, J.A.; Murray, F.J.; Crawford, A.A.; et al. (1978) The Effects of Orally Administered Orthophenylphenol on Rat Embryonal and Fetal Development: HET K-001024-(33). (Unpublished study received Sep 18, 1978 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:235123-A)
- 00072103 Hodge, H.C.; Maynard, E.A.; Blanchet, H.J., Jr.; et al. (1952) Toxicological studies of orthophenylphenol (Dowicide<sup>(R)</sup> 1). Journal of Pharmacology and Experimental Therapeutics 104(2): 202-210. (Also~In~unpublished submission received Aug 21, 1956 under PP0073; submitted by Vis-Ko, Inc., Sumner, Wash.; CDL:090070-A)
- 00073282 Brusick, D. (1976) Mutagenicity Evaluation of Ortho-phenylphenol: LBI Project No. 2547. Final rept. (Unpublished study received May 4, 1976 under 464-70; prepared by Litton Bionetics, Inc., submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:233692-A)
- 00078779 Carreon, R.E.; New, M.A. (1981) Dowicide<sup>(TM)</sup> 1: Acute Percutaneous Absorption Potential: HET K-1024-(37). (Unpublished study received Jun 18, 1981 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:245514-A)
- 00079551 Brusick, D. (1976) Mutagenicity Evaluation of Ortho-phenylphenol: LBI Project No. 2547. Final rept. (Unpublished study, including letter dated Jun 24, 1976 from W. Greear to Elmer Geathers, received May 4, 1976 under 464-70; prepared by Litton Bionetics, Inc., submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:226737-A)

- 00091022 Reitz, R.H.; Fox, T.R.; Quast, J.F.; et al. (1981) Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Ortho-phenylphenol and Its Sodium Salt: HET-K-1025-(8). (Unpublished study received Jan 7, 1982 under 464-78; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:246553-A)
- 00093273 Dow Chemical Company (1951) Summary of Toxicological Studies on o-Phenylphenol (Dowicide 1) and Its Sodium Salt (Dowicide A). (Unpublished study received on unknown date under 464-70; CDL:120552-A)
- 00101758 Dow Chemical Co. (1969) Hazards Due to Toxicity and Precautions for Safe Handling and Use. Midland, MI: Dow. (Antimicrobial agents, section IV-2; also In unpublished submission received Aug 1, 1972 under 464-70; CDL:003399-N)
- 00106635 Dow Chemical Co. (1964) Summary of Toxicological Studies: Dowicide 1 and Dowicide A. (Unpublished study received Dec 17, 1969 under 464-72; CDL:050054-B)
- 00110138 Dow Chemical U.S.A. (1971) Toxicity of Dowicide 1 to Fish. (Compilation; unpublished study received Apr 16, 1974 under 464-126; CDL:131589-A)
- 00110232 Bentley, R. (1975) Acute Toxicity of Dowicide CO to Bluegill ... and Rainbow Trout ...: GH-RC 62. (Unpublished study received Aug 25, 1976 under 464-126; prepared by Bionomics, EG & G Environmental Consultants, submitted by Dow Chemical U.S.A., Midland, MI; CDL:233706-A)
- 00111055 Rose, G. (1969) Letter sent to W. Potter dated Nov 25, 1969: Preliminary studies on the toxicity of two test products in embryonated eggs. (Unpublished study received Jan 13, 1970 under 464-376; prepared by Owen Clinical Laboratory, submitted by Dow Chemical U.S.A., Midland, MI; CDL:050077-A)
- 00111100 Norris, J.; Bourne, J. (1971) Eye Irritation Test Conducted on Dowicide 1 Antimicrobial: NB T17.1-9-29. (Unpublished study received Apr 16, 1974 under 464-126; prepared by Dow Chemical U.S.A., submitted by Dow Chemical U.S.A., Midland, MI; CDL:051168-A)
- 00111165 Dow Chemical Co. (1964) Summary of Toxicological Studies: Dowicide 1 and Dowicide A. (Unpublished study received Apr 1, 1970 under 464-70; CDL:110822-A)
- 00111166 Dow Chemical Co. (1963) Toxicological Properties of Torsite (M-2469). (Unpublished study received Sep 25, 1964 under unknown admin. no.; CDL:110833-A)
- 00111167 Quack, B. (1963) Report to Dow Chemical Company: Human Repeated Insult Patch Test on Sample No. M-2469. (Unpublished study

received Sep 25, 1964 under unknown admin. no.; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Chemical U.S.A., Midland, MI; CDL:110833-B)

- 00111997 Taylor, M.; Kary, T. (1963) Toxicological Properties of Torsite (M-2469). (Unpublished study received Aug 2, 1963 under unknown admin. no.; submitted by Dow Chemical U.S.A., Midland, MI; CDL:123478-A)
- 00127249 Reitz, R.; Fox, T.; Quast, J.; et al. (1983) Follow-up Studies of the Effects of Orthophenylphenol ... and Sodium Orthophenylphenol ... on the Urinary Tract of F344 Rats: HET K-1025-(11). (Unpublished study received Mar 28, 1983 under 464-70; submitted by Dow Chemical U.S.A., Midland, MI; CDL:249835-A)
- 00130058 MacIntosh, F. (1945) The toxicity of diphenyl and o-phenyl-phenol. *Analyst*. 70:334-335. (Also In unpublished submission received Aug 12, 1983 under 464-70; submitted by Dow Chemical U.S.A., Midland, MI; CDL:250986-C)
- 00136708 Quack, B. (1963) Report to Dow Chemical Company: Human Repeated Insult Patch Test on Sample No. M-2469: Torsite. (Unpublished study received Apr 26, 1965 under 464-339; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Chemical U.S.A., Midland, MI; CDL:003534-C)
- 00137908 Dow Chemical U.S.A. (19??) Fish, Snail and Daphnia Toxicity of Torsite M-2469-X-200. (Unpublished study received Sep 25, 1964 under unknown admin. no.; CDL:110833-C)
- 00139884 Norris, J.M. Bourne, J. (1971) Eye Irritation Test Conducted on Dowicide 1 Antimicrobial: NB T17.1-9-29. (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-A)
- 00139885 Alexander, H.C. (1971) Letter sent to Margaret Wolf dated Aug 12, 1971: Acute fish toxicity of Dowicide~(R) 1. (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-C)
- 00139886 Waste Control Laboratory (1970) Summary of Pollutational Characteristics of Dowicide~(R) 1 (Ortho Phenyl Phenol). (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-D)
- 00143389 Suzuki, H.; Suzuki, N.; Sasaki, M.; et al. (1985) Orthophenylphenol mutagenicity in a human cell strain. *Mutation Research* 156:123-127.
- 00149992 Hiraga, K.; Fugii, T. (1984) Induction of tumours of the urinary bladder in F344 rats by dietary administration of o-phenylphenol. *Food Chem. Toxic.* 22(11):865-870.
- 00156044 Dill, D.; Milazzo, D.; Bartlett, E., et al. (1985) Evaluation of

- the Toxicity of Dowicide 1 Antimicrobial, Technical O-Phenylphenol, to Representative Aquatic Organisms: ES-811. Unpublished study prepared by Dow Chemical U S A. 17 p.
- 00160149 Grimes, J. (1986) Ortho-phenylphenol Technical: A Dietary LC50 Study with the Bobwhite: Final Report: Project No. 103-246. Unpublished study prepared by Wildlife International Ltd. 17 p.
- 00160150 Grimes, J. (1986) Ortho-phenylphenol Technical: An Acute Oral Toxicity Study with the Mallard: Final Report: Project No. 103-248. Unpublished study prepared by Wildlife International Ltd. 18 p.
- 00160151 Grimes, J. (1986) Ortho-phenylphenol Technical: A Dietary LC50 Study with the Mallard: Final Report: Project No. 103-247. Unpublished study prepared by Wildlife International Ltd. 18 p.
- 00161577 US Public Health Service, National Institutes of Health (1986) NTP Technical Report on the Toxicology and Carcinogenesis Studies of Ortho-phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice: (Dermal Studies). NIH Publication No. 86-2557. 144 p.
- 00164360 Rao, K. Proposed Reproduction Study Protocol: Orthophenylphenol: Two-generation Dietary Reproduction Study in Rats. Unpublished study prepared by Dow Chemical U.S.A. 12 p.
- 00164362 John, J.; Murray, F.; Rao, K.; et al. (1981) Teratological evaluation of orthophenylphenol in rats. *Fundamental and Applied Toxicology* 1(5-6):282-285.
- 40297500 Dow Chemical Co. (1987) Submission of Toxicity Data To Support the Registration of Dowicide 1 Antimicrobial. Transmittal of 1 study.
- 40297501 Fujii, T.; Nakamura, K.; Hiraga, K. (1987) Effects of pH on the carcinogenicity of o-phenylphenol and sodium o-phenylphenate in the rat urinary bladder. *Food Chem. Toxicol.* 25(5):359-362.
- 40760200 Dow Chemical Co. (1988) Submission of Toxicological Data to Support the Registration for Dowicide 1 Antimicrobial (Sodium o-Phenylphenate). Transmittal of 9 studies.
- 40760203 Hiraga, K. (1983) Carcinogenicity Testing of Sodium Orthophenylphenate in F-344/DuCrj Rats. Unpublished study prepared by Tokyo Metropolitan Research Laboratory of Public Health. 80 p.
- 40760204 Kamiya, N.; Hiraga, K. (1982) Uniformity of Test Article Concentrations in Pellet Diet Used Feeding Study. Unpublished Translation of *Annu. Rept. Tokyo Metr. Res. Lab. of Public Health.* 33:561-563. 13 p.
- 40760205 Nawai, S.; Ogata, A.; Yoshida, S.; et al. (1987) Quantitative Analysis of Sodium o-Phenylphenol Added into the Standard Animal Foods and Effect of Preservation. Unpublished Translation of

Ann. Rept. Tokyo Metr. Res. Lab. Public Health 29(2):97-98.  
11 p.

- 40760206 Iguchi, S.; Takahashi, H.; Fujii, T.; et al. (1984) Subchronic Toxicity of o-Phenolphenol (OPP) by Food Administration to Rats. Unpublished translation of Ann. Rept. Tokyo Res. Lab. 35: 407-415. 29 p.
- 40760207 Nakamura, K.; Iguchi, S.; Ikeda, T.; et al. (1981) Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Unpublished translation of Annu. Rept. Tokyo Res. Lab. 32(2): 33-39. 24 p.
- 40760208 Iguchi, S.; Tayama, K.; Hiraga, K. (1979) Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Unpublished translation of Ann. Rept. Tokyo Metr. Res. Lab. Public Health 30(2): 67-79. 38 p.
- 40760209 Tayama, K.; Nakamura, K.; Kamiya, N.; et al. (1984) Urinalysis of Male F344/DuCriJ Rats Fed with Sodium o-Phenylphenate (OPP-Na). Unpublished translation of Annu. Rept. Tokyo Res. Lab. 35:425-429. 17 p.
- 41301000 Dow Chemical Co. (1989) Submission of Data To Support Reregistration of Dowcide 1 & A Anti-microbial: Toxicology Data. Transmittal of 1 study.
- 41301001 Ishidate, M.; Yoshikawa, K.; Sofuni, T. (1983) Mutagenicity Tests on OPP, OPP-Sodium Salt and their Possible Metabolites. Unpublished study prepared by National Institute of Hygienic Sciences 15 p.
- 41465500 The Dow Chemical Co. (1990) Submission of Data to Support the Reregistration of Dowicide Antimicrobials Regarding Phase 2 Response. Transmittal of 1 study.
- 41465501 Kaneda, M.; Teramoto, S.; Shingu, A.; et al. (1978) Teratogenicity and dominant-lethal studies with o-phenylphenol. J. Pesticide Sci. 3:365-370.
- 41892100 The Dow Chemical Co. (1991) Submission of Data To Support Reregistration of Dowcide 1 and Dowcide A Antimicrobial: Toxicology Study. Transmittal of 1 study.
- 41892101 Berdasco, N. (1991) Orthophenylphenol: Dermal Sensitization Potential in the Hartley Albino Guinea Pig: Lab Project Number: K-001024-048. Unpublished study prepared by The Dow Chemical Co. 15 p.
- 42333100 Dow Chemical Co. (1992) Submission of toxicity data to support the reregistration of phenylphenol. Transmittal of 1 study.
- 42333101 Landry, T.; Stebbins, K.; Battjes, J. (1992) Ortho-phenylphenol: Acute Aerosol Inhalation Toxicity Study in

Rats: Lab Project Number: K-001024-049. Unpublished study prepared by Dow Chemical Co. 33 p.

- 43228200 Dow Chemical Co. (1994) Submission of toxicity data in support of the FIFRA 6(a)(2) requirement for Ortho-phenylphenol. Transmittal of 1 study.
- 43228201 Wright, P. (1994) Letter Sent to Registration Division, U.S. EPA dated May 3, 1994: Ortho-phenylphenol: (two-year dietary chronic toxicity/oncogenicity study in mice). Prepared by Dow Chemical Co. 3 p.
- 92154004 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160150. Ortho-phenylphenol Technical; an Acute Oral Toxicity Study with the Mallard: Project No. 103-248. Prepared by Wildlife International Ltd. 7 p.
- 92154005 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160151. Ortho-phenylphenol Technical; a Dietary LC50 Study with the Mallard: Project No. 103-247. Prepared by Wildlife International Ltd. 7 p.
- 92154006 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160149. Ortho-phenylphenol Technical; a Dietary LC50 Study with the Bobwhite: Project No. 103-246. Prepared by Wildlife International Ltd. 7 p.
- 92154007 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00156044. Evaluation of the Toxicity of DOWICIDE 1 Antimicrobial Technical O-phenylphenol to Representative Aquatic Organisms: Laboratory Report ES-811. Prepared by Dow Chemical Company. 8 p.
- 92154009 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00156044. Evaluation of the Toxicity of DOWICIDE 1 Antimicrobial Technical O-phenylphenol to Representative Aquatic Organisms: Laboratory Report ES-811. Prepared by Dow Chemical Company. 7 p.
- 92154010 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00093286 and Related MRIDs 00110204. Acute Toxicological Properties of DOWICIDE A Antimicrobial. Prepared by Dow Chemical Company. 6 p.
- 92154011 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00078779. DOWICIDE 1 Acute Percutaneous Absorption Potential. Prepared by Dow Chemical Company. 6 p.
- 92154012 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00139884. Eye Irritation Test Conducted on DOWICIDE 1 Antimicrobial. Prepared by Dow Chemical Company. 5 p.
- 92154013 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00093286 and Related MRIDs 00110204. Acute Toxicological

Properties of DOWICIDE A Antimicrobial. Prepared by Dow Chemical Company. 5 p.

- 92154014 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Ortho-Phenylphenol and its Sodium Salt. Prepared by Dow Chemical Company. 6 p.
- 92154015 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760206 and Related MRIDs 00014992, 40760201, 40760205, 40760204. Subchronic Toxicity of o-Phenylphenol by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154016 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760207 and Related MRIDs 40760201, 40760204, 40760205. Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154017 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760208 and Related MRIDs 00091021, 00141535, 40760201, 40760204, 40760205. Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154018 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00161577. Toxicology and Carcinogenesis Studies of Ortho-Phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)Anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice (Dermal Studies). Prepared by National Toxicology Program. 7 p.
- 92154019 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00164361 and Related MRIDs 40760205. Long-term Toxicity and Carcinogenicity Study of Sodium o-Phenylphenate in B6C3F1 Mice. Prepared by Nagoya City University Medical School. 8 p.
- 92154022 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00067616 and Related MRIDs 00164362. The Effects of Orally Administered Orthophenylphenol on Rat Embryonal and Fetal Development. Prepared by Dow Chemical Company. 7 p.
- 92154023 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40976501. Two-generation Reproduction Study in Rats Using Orthophenylphenol: Study No. 85-671-02. Prepared by Mobay Corporation. 7 p.
- 92154024 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity of Orthophenylphenol and its Sodium Salt. Prepared by Dow Chemical Company. 8 p.
- 92154025 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID

00073282 and Related MRIDs 00079551. Mutagenicity Evaluation of Ortho-Phenylphenol. Prepared by Litton Bionetics, Inc. 6 p.

- 92154026 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00161577. Toxicology and Carcinogenesis Studies of Ortho-Phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)Anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice (Dermal Studies). Prepared by National Toxicology Program. 8 p.
- 92154027 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760203 and Related MRIDs 40760201, 40760204, 40760205. Carcinogenicity Testing of Sodium Orthophenylphenate in F-344/DuCrj Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154028 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00014992 and Related MRIDs 40760201, 40760204, 40760205. Induction of Tumours of the Urinary Bladder in F344 Rats by Dietary Administration of o-Phenylphenol. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154029 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00141535 and Related MRIDs 00091021, 40760201, 40760204, 40760205. Induction of the Tumours of the Urinary System in F344 Rats by Dietary Administration of Sodium o-Phenylphenate. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154032 Reitz, R. Fox, T. Quast, J. et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Orthophenylphenol and its Sodium Salt: Project HET-K-1025-8. Prepared by Dow Chemical Company. 49 p.
- 92154033 Mizoiri, S.; Hirokado, M.; Nakajima, K. et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760201. Quality and Determination of o-Phenylphenol-Na in Animal Feeds. Prepared by Tokyo Metropolitan Research Lab. 18 p.
- 92154034 Nawai, S.; Ogata, A.; Yoshida, S.; et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760205. Quantitative Analysis of Sodium o-Phenylphenol Added into the Standard Animal Foods and Effect of Preservation. Prepared by Tokyo Metropolitan Research Lab. 11 p.
- 92154035 Nakamura, K.; Iguchi, S.; Hiraga, K. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760207. Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Prepared by Tokyo Metropolitan Research Lab. 25 p.
- 92154036 Iguchi, S.; Tayama, K.; Hiraga, K. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760208. Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 39 p.

- 92154037 John, J.; Murray, F.; Crawford, A. et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 00067616 and Related MRIDs 00164362. The Effect of Orally Administered Orthophenylphenol on Rat Embryonal and Fetal Development: Project HET-K-0001024-33(R). Prepared by Dow Chemical Company. 37 p.
- 92154038 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00127249. Biochemical Factors Involved in the Effects of Orthophenylphenol (OPP) and Sodium Orthophenylphenol (SOPP) on the Urinary Tract of Male F344 Rats. Prepared by Dow Chemical Company. 6 p.
- 92154039 Brusick, D. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 00073282 and Related MRIDs 00079551. Mutagenicity of Ortho-Phenylphenol: LBI Project No. 2547. Prepared by Litton Bionetics, Inc. 11 p.

\*\*\* END OF OUTPUT \*\*\*

November 30, 1999

Bayer Corporation  
100 Bayer Road  
Pittsburgh, PA 15205-9741  
Phone: 412 777-2000

Mr. Charles Auer  
Director, Chemical Control Division (7405)  
Office of Pollution Prevention and Toxics  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Re: Ortho-Phenylphenol: A FIFRA Registered Substance on the HPV List

Dear Charlie:

Ortho-Phenyl Phenol is currently on the U.S. HPV list and is also registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). As you know, in order to obtain a FIFRA registration, registrants must conduct and submit to EPA extensive health and environmental effects testing. EPA then must carefully review the data, and make a determination that the intended use of the substance tested will not cause unreasonable adverse effects. The data requirements to support this determination are extensive, and go well beyond the screening-level requirements of the OECD/SIDS and U.S. HPV programs.<sup>1</sup>

Bayer proposes that this substance receive a designation of "1," indicating that the chemical is not considered a candidate for testing under the HPV Challenge Program. To support this, enclosed are three lists of studies, including the EPA MRID numbers, which have previously been submitted to the Office of Pesticide Programs. EPA would not encourage replication of studies as this is a waste of animals and other resources. Summaries of each listed study should be available from the Office of Pesticide Program.

Sincerely,

Donald W. Lamb, Ph.D.  
Vice President Product Safety & Regulatory Affairs

enclosures

P 954 868 697

RECEIVED  
OPPT NCIC  
00 JAN - 3 PM 3:46

<sup>1</sup> FIFRA also contains exclusive use, confidentiality and data compensation provisions that restrict access to and use of test data by non-registrants (and their agents). These provisions are designed to protect the significant investment in research, development and intellectual property required of companies that are able to obtain a FIFRA registration.

PDMS Search - Display MRID and Citation

Last Search Submitter: 59265

Citations Selected: 16

- 40976500 Mobay Corp. (19889) Submission of Two-generation Dietary Study in Partial Fulfillment of the Requirements of EPA Data Call-in for Orthophenylphenol. Transmittal of 1 study.
- 40976501 Eigenberg, D. (1989) Two-generation Dietary Reproduction Study in Rats Using Orthophenylphenol: Study No. 85-671-02. Unpublished study prepared by Mobay Corp. 2111 p.
- 41656400 Dow and Mobay (1990) Submission of Toxicity Data in Support of Phase 2 Response for Ortho-phenylphenol. Transmittal of 1 study.
- 41656401 Cosse, P.; Stebbins, K.; Stott, W.; et al. (1990) Ortho-phenylphenol: Palatability/Probe, Four-week and One-year Oral Toxicity Studies in Beagle Dogs: Lab Project Number: K-001024-038: K-001024-038A: K-001024-039. Unpublished study prepared by Dow Chemical Co., Health and Environmental Sciences. 321 p.
- 41729400 Mobay Corp./Dow Chemical Co. (1990) Submission of Chronic Toxicity Data in support of Orthophenylphenol Phase 2 and Phase 3 Response. Transmittal of 1 study.
- 41729401 Eigenberg, D. (1990) Two-Generation Dietary Reproduction Study in Rats Using Orthophenyl Phenol: Lab Project Number: 85-671-02. Unpublished study prepared by Mobay Corp. 2696 p.
- 41925000 Dow Chemical Co. (1991) Submission of toxicity data to support the reregistration of products containing Ortho-phenylphenol. Transmittal of 3 studies.
- 41925001 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): 13-Day Range-finding Oral Gavage Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-043. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 34 p.
- 41925002 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): Gavage Teratology Probe Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-044. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 77 p.
- 41925003 Zabloutny, C.; Breslin, W.; Kociba, R. (1991) Ortho-Phenylphenol (OPP): Gavage Teratology Study in New Zealand White Rabbits: Final Report: Lab Project Number: K-001024-045. Unpublished study prepared by Dow Chemical Co., Health & Env. Sciences. 309 p.
- 42881900 The Dow Chemical Co. and Miles, Inc. Consortium (1993) Submission

of Subchronic Toxicity Data in Support of Reregistration of  
Products Containing 2-Phenylphenol. Transmittal of 1 Study.

- 42881901 Zempel, J.; Szabo, J. (1993) Ortho-Phenylphenol: 21-Day  
Repeated Dermal Dose Study of Systemic Toxicity in Fischer 344  
Rats: Lab Project Number: K-001024-056. Unpublished study  
prepared by Dow Chemical-Lake Jackson Research Center. 208 p.
- 43545500 The Dow Chemical Co./Miles Inc. Consortium (1995) Submission of  
Toxicology Data in Support of Reregistration of 2-Phenylphenol  
and Salts. Transmittal of 1 Study.
- 43545501 Quast, J.; McGuirk, R. (1995) Ortho-Phenylphenol: Two-year  
Dietary Chronic Toxicity/Oncogenicity Study in B6C3F1 Mice: Lab  
Project Number: K-001024-047. Unpublished study prepared by  
The Dow Chemical Co. 1089 p.
- 43954300 Bayer Corp./Dow Chemical Co. Consortium (1996) Submission of  
Toxicology Data in Support of FIFRA 6(a)(2) for o-Phenylphenol.  
Transmittal of 1 Study.
- 43954301 Wahle, B.; Christenson, W. (1996) Technical Grade  
ortho-Phenylphenol: A Combined Toxicity/Oncogenicity Testing  
Study in the Rat: Lab Project Number: 7908: 92-272-SC.  
Unpublished study prepared by Bayer Corp. 4282 p.

\*\*\* END OF OUTPUT \*\*\*

(c)Copyright 1999 Purdue Research Foundation. All rights reserved.

PDMS Search - Display MRID and Citation

Last Search Submitter: BAYER

Citations Selected: 28

- 00048552 Weidle, H. (1976) The Technical Conservation of Coolants in the Metalworking Industry. A translation of: Die Technische Konservierung von Kuhlmitteln in der Metallverarbeitenden Industrie. Seifen-ole-Fette-Wachse 99(25):741. (Unpublished study including German text, received Jan 24, 1977 under 39967-1; submitted by Mobay Chemical Corp., Pittsburgh; Pa.; CDL:227654-G)
- 00071273 Mobay Chemical Corporation (1977) Preventol O Extra (Mobay Ortho-phenylphenol): Product Information. Pittsburgh, Pa: Mobay. (Also~In~unpublished submission received Jan 12, 1981 under 39967-3; CDL:244461-F)
- 00072103 Hodge, H.C.; Maynard, E.A.; Blanchet, H.J., Jr.; et al. (1952) Toxicological studies of orthophenylphenol (Dowicide<sup>(R)</sup> 1). Journal of Pharmacology and Experimental Therapeutics 104(2): 202-210. (Also~In~unpublished submission received Aug 21, 1956 under PP0073; submitted by Vis-Ko, Inc., Sumner, Wash.; CDL: 090070-A)
- 00104994 Mobay Chemical Corp. (1972?) Mobay Ortho-phenylphenol: Animal Toxicity Data . Summary of studies 236808-B through 236808-D and 236808-G. (Unpublished study received Jan 15, 1979 under 39967-2; CDL:236808-A)
- 00104996 Mihail, F.; Kimmerle, G. (1977?) Mobay Ortho-phenylphenol Determination of Inhalation Toxicity. (Translation; unpublished study received Jan 15, 1979 under 39967-2; prepared by Farbenfabriken Bayer, AG, W. Ger., submitted by Mobay Chemical Corp., Pittsburgh, PA; CDL:236808-C)
- 00115965 Mobay Chemical Corp. (1978) Literature References: Toxicity of Ortho-phenylphenol: Search of Toxline, Toxback and Cancerline Data Bases. (Unpublished study received Jan 15, 1979 under 39967-2; CDL:236808-F)
- 42941200 Miles Inc. (1993) Submission of Toxicology Data in Support of the Application for Registration of Preventol WB. Transmittal of 2 studies.
- 42941201 Bomhard, E. (1993) Preventol WB: Acute Oral Toxicity Study in Male and Female Wistar Rats: Lab Project Number: T3050198: 22330. Unpublished study prepared by Bayer AG. 45 p.
- 42941202 Kolb, J. (1993) Preventol WB: Study for Skin Sensitization Effect on Guinea Pigs (Buehler Test): Lab Project Number: T9050194: 22327. Unpublished study prepared by Bayer AG. 42 p.
- 42974100 Miles Inc. (1993) Submission of Toxicity Data for Preventol WB

in Support of Registration. Transmittal of 1 Study.

- 42974101 Maertins, T. (1993) Preventol WB: Acute Inhalation Toxicity in the Rat: Lab Project Number: T0050195: 22448. Unpublished study prepared by BAYER AG, Fachbereich Toxikologie. 114 p.
- 43263300 Miles Inc. (1994) Submission of toxicity data in support of the FIFRA 6(a)(2) requirements for ortho-phenylphenol. Transmittal of 1 study.
- 43263301 Lamb, D. (1994) Letter Sent to Registration Div., OPP dated June 1, 1994: Ortho-Phenylphenol: Miles 49-155 ortho-phenylphenol: (2-year dietary chronic tox/oncog. study in mice: preliminary results). Prepared by Miles Inc. 4 p.
- 43764600 Bayer Corp. (1995) Submission of Toxicity Data in Support of the Application for Registration of Preventol WB. Transmittal of 1 Study.
- 43764601 Shiotsuka, R. (1995) Preventol WB: Acute Oral Toxicity Study in Male and Female Wistar Rats: Supplement. Unpublished study prepared by Bayer AG. 10 p.
- 43797500 Bayer Corp. (1995) Submission of Toxicology Data in Support of the Registration of Preventol WB. Transmittal of 1 Study.
- 43797501 Kroetlinger, F.; Vohr, H. (1993) Validation of the Buehler Test Method Used by the Department of Toxicology, Bayer AG, Performed on Guinea Pigs of the Strain DHPW with 2-Mercaptobenzothiazole: (Positive Control Data): Lab Project Number: T 0050285: 22682. Unpublished study prepared by Bayer AG. 39 p.
- 43928800 Bayer Corp., Organic Products Div. (1996) Submission of Toxicology Data in Support of the Reregistration of 2-Phenylphenol and Salts. Transmittal of 1 Study.
- 43928801 Eigenberg, D.; Lake, S. (1995) A Two-Generation Dietary Reproduction Study in Sprague-Dawley Rats Using Technical Grade ortho-Phenylphenol: Lab Project Number: 93-672-VX: 7788. Unpublished study prepared by Bayer Corp. 1213 p.
- 44197600 Bayer Corp. (1997) Submission of Toxicity Data in Support of the Reregistration of ortho-Phenylphenol. Transmittal of 2 Studies.
- 44197601 Christenson, W.; Wähle, B.; Cohen, S. (1996) Technical Grade ortho-Phenylphenol: A Special Subchronic Dietary Study to Examine the Mechanism of Urinary Bladder Carcinogenesis in the Male Rat: Lab Project Number: 92-972-MS: 8042. Unpublished study prepared by Bayer Corp. and University of Nebraska Medical Center. 47 p.
- 44197602 Christenson, W.; Wahle, B.; Cohen, S. (1996) Technical Grade

ortho-Phenylphenol: A Special Subchronic Dietary Study to Examine the Mechanism of Urinary Bladder Carcinogenesis in the Male Rat: Supplement: Lab Project Number: 92-972-MS: 8042-1. Unpublished study prepared by Bayer Corp. and University of Nebraska Medical Center. 11 p.

- 44697000 Bayer Corporation (1998) Submission of Toxicity Data in Support of the Registration of Preventol O Extra. Transmittal of 1 Study.
- 44697001 Eigenberg, D. (1998) A Two-Generation Dietary Reproduction Study in Sprague Dawley Rats Using Technical Grade Ortho-Phenylphenol: Lab Project Number: 93-672-VX: 7788. Unpublished study prepared by Bayer Corporation. 576 p.
- 44832200 Bayer Corporation (1999) Submission of Toxicity Data in Support of the Registration of Ortho-Phenylphenol. Transmittal of 1 Study.
- 44832201 Wahle, B.; Christenson, W. (1999) Technical Grade Ortho-Phenylphenol: A Combined Chronic Toxicity/Oncogenicity Testing Study in the Rat: Lab Project Number: 7908: 7908-2: 92-272-SC. Unpublished study prepared by Bayer Corporation. 8 p.
- 44852700 Bayer Corporation (1999) Submission of Toxicity Data in Support of the Registration of Technical Grade Ortho-Phenylphenol. Transmittal of 1 Study.
- 44852701 Wahle, B.; Christenson, W. (1999) Technical Grade ortho-Phenylphenol: A Combined Chronic Toxicity/Oncogenicity Testing Study in the Rat: Lab Project Number: 92-272-SC. Unpublished study prepared by Bayer Corp. 964 p.

\*\*\* END OF OUTPUT \*\*\*

(c)Copyright 1999 Purdue Research Foundation. All rights reserved.

PDMS Search - Display MRID and Citation

Last Search Submitter: DOW

Citations Selected: 108

- 00007412 Dow Chemical Company (1964) Summary of Toxicological Studies. (Unpublished study received Apr 1, 1970 under 464-79; CDL:008926-G)
- 00053852 Dow Chemical Company (1964) Summary of Toxicological Studies. (Unpublished study received Jul 29, 1970 under 464-125; CDL:118768-B)
- 00058624 Ogata, A.; Ando, H.; Kubo, Y.; et al. (1978) Teratological Tests of Ortho-phenylphenol and Its Sodium salt in Mice. A translation of: Orutofenirufenoru oyobi sono natoryumu-en no mausu o mochiita aikikeisei shiken. Ann. Rep. Tokyo Metropolitan Research Laboratory of Public Health 29(2):89-96. (Unpublished study, including published Japanese text, received Feb 23, 1981 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:244412-A)
- 00067616 John, J.A.; Murray, F.J.; Crawford, A.A.; et al. (1978) The Effects of Orally Administered Orthophenylphenol on Rat Embryonal and Fetal Development: HET K-001024-(33). (Unpublished study received Sep 18, 1978 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:235123-A)
- 00072103 Hodge, H.C.; Maynard, E.A.; Blanchet, H.J., Jr.; et al. (1952) Toxicological studies of orthophenylphenol (Dowicide<sup>(R)</sup> 1). Journal of Pharmacology and Experimental Therapeutics 104(2): 202-210. (Also-In-unpublished submission received Aug 21, 1956 under PP0073; submitted by Vis-Ko, Inc., Sumner, Wash.; CDL:090070-A)
- 00073282 Brusick, D. (1976) Mutagenicity Evaluation of Ortho-phenylphenol: LBI Project No. 2547. Final rept. (Unpublished study received May 4, 1976 under 464-70; prepared by Litton Bionetics, Inc., submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:233692-A)
- 00078779 Carreon, R.E.; New, M.A. (1981) Dowicide<sup>(TM)</sup> 1: Acute Percutaneous Absorption Potential: HET K-1024-(37). (Unpublished study received Jun 18, 1981 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:245514-A)
- 00079551 Brusick, D. (1976) Mutagenicity Evaluation of Ortho-phenylphenol: LBI Project No. 2547. Final rept. (Unpublished study, including letter dated Jun 24, 1976 from W. Greear to Elmer Geathers, received May 4, 1976 under 464-70; prepared by Litton Bionetics, Inc., submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:226737-A)

- 00091022 Reitz, R.H.; Fox, T.R.; Quast, J.F.; et al. (1981) Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Ortho-phenylphenol and Its Sodium Salt: HET-K-1025-(8). (Unpublished study received Jan 7, 1982 under 464-78; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:246553-A)
- 00093273 Dow Chemical Company (1951) Summary of Toxicological Studies on o-Phenylphenol (Dowicide 1) and Its Sodium Salt (Dowicide A). (Unpublished study received on unknown date under 464-70; CDL:120552-A).
- 00101758 Dow Chemical Co. (1969) Hazards Due to Toxicity and Precautions for Safe Handling and Use. Midland, MI: Dow. (Antimicrobial agents, section IV-2; also In unpublished submission received Aug 1, 1972 under 464-70; CDL:003399-N)
- 00106635 Dow Chemical Co. (1964) Summary of Toxicological Studies: Dowicide 1 and Dowicide A . (Unpublished study received Dec 17, 1969 under 464-72; CDL:050054-B)
- 00110138 Dow Chemical U.S.A. (1971) Toxicity of Dowicide 1 to Fish . (Compilation; unpublished study received Apr 16, 1974 under 464-126; CDL:131589-A)
- 00110232 Bentley, R. (1975) Acute Toxicity of Dowicide CO to Bluegill ... and Rainbow Trout ...: GH-RC 62. (Unpublished study received Aug 25, 1976 under 464-126; prepared by Bionomics, EG & G Environmental Consultants, submitted by Dow Chemical U.S.A., Midland, MI; CDL:233706-A)
- 00111055 Rose, G. (1969) Letter sent to W. Potter dated Nov 25, 1969: Preliminary studies on the toxicity of two test products in embryonated eggs. (Unpublished study received Jan 13, 1970 under 464-376; prepared by Owen Clinical Laboratory, submitted by Dow Chemical U.S.A., Midland, MI; CDL:050077-A)
- 00111100 Norris, J.; Bourne, J. (1971) Eye Irritation Test Conducted on Dowicide 1 Antimicrobial: NB T17.1-9-29. (Unpublished study received Apr 16, 1974 under 464-126; prepared by Dow Chemical U.S.A., submitted by Dow Chemical U.S.A., Midland, MI; CDL:051168-A)
- 00111165 Dow Chemical Co. (1964) Summary of Toxicological Studies: Dowicide 1 and Dowicide A . (Unpublished study received Apr 1, 1970 under 464-70; CDL:110822-A)
- 00111166 Dow Chemical Co. (1963) Toxicological Properties of Torsite (M-2469). (Unpublished study received Sep 25, 1964 under unknown admin. no.; CDL:110833-A)
- 00111167 Quack, B. (1963) Report to Dow Chemical Company: Human Repeated Insult Patch Test on Sample No. M-2469. (Unpublished study

- received Sep 25, 1964 under unknown admin. no.; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Chemical U.S.A., Midland, MI; CDL:110833-B)
- 00111997 Taylor, M.; Kary, T. (1963) Toxicological Properties of Torsite (M-2469). (Unpublished study received Aug 2, 1963 under unknown admin. no.; submitted by Dow Chemical U.S.A., Midland, MI; CDL:123478-A)
- 00127249 Reitz, R.; Fox, T.; Quast, J.; et al. (1983) Follow-up Studies of the Effects of Orthophenylphenol ... and Sodium Orthophenylphenol ... on the Urinary Tract of F344 Rats: HET K-1025-(11). (Unpublished study received Mar 28, 1983 under 464-70; submitted by Dow Chemical U.S.A., Midland, MI; CDL:249835-A)
- 00130058 MacIntosh, F. (1945) The toxicity of diphenyl and o-phenyl-phenol. Analyst. 70:334-335. (Also In unpublished submission received Aug 12, 1983 under 464-70; submitted by Dow Chemical U.S.A., Midland, MI; CDL:250986-C)
- 00136708 Quack, B. (1963) Report to Dow Chemical Company: Human Repeated Insult Patch Test on Sample No. M-2469: Torsite . (Unpublished study received Apr 26, 1965 under 464-339; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Chemical U.S.A., Midland, MI; CDL:003534-C)
- 00137908 Dow Chemical U.S.A. (19??) Fish, Snail and Daphnia Toxicity of Torsite M-2469-X-200. (Unpublished study received Sep 25, 1964 under unknown admin. no.; CDL:110833-C)
- 00139884 Norris, J.M. Bourne, J. (1971) Eye Irritation Test Conducted on Dowicide 1 Antimicrobial: NB T17.1-9-29. (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-A)
- 00139885 Alexander, H.C. (1971) Letter sent to Margaret Wolf dated Aug 12, 1971: Acute fish toxicity of Dowicide~(R) 1. (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-C)
- 00139886 Waste Control Laboratory (1970) Summary of Pollutational Characteristics of Dowicide~(R) 1 (Ortho Phenyl Phenol). (Unpublished study received Aug 27, 1971 under 464-70; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:110825-D)
- 00143389 Suzuki, H.; Suzuki, N.; Sasaki, M.; et al. (1985) Orthophenylphenol mutagenicity in a human cell strain. Mutation Research 156:123-127.
- 00149992 Hiraga, K.; Fugii, T. (1984) Induction of tumours of the urinary bladder in F344 rats by dietary administration of o-phenylphenol. Food Chem. Toxic. 22(11):865-870.
- 00156044 Dill, D.; Milazzo, D.; Bartlett, E., et al. (1985) Evaluation of

- the Toxicity of Dowicide 1 Antimicrobial, Technical O-Phenylphenol, to Representative Aquatic Organisms: ES-811. Unpublished study prepared by Dow Chemical U S A. 17 p.
- 00160149 Grimes, J. (1986) Ortho-phenylphenol Technical: A Dietary LC50 Study with the Bobwhite: Final Report: Project No. 103-246. Unpublished study prepared by Wildlife International Ltd. 17 p.
- 00160150 Grimes, J. (1986) Ortho-phenylphenol Technical: An Acute Oral Toxicity Study with the Mallard: Final Report: Project No. 103-248. Unpublished study prepared by Wildlife International Ltd. 18 p.
- 00160151 Grimes, J. (1986) Ortho-phenylphenol Technical: A Dietary LC50 Study with the Mallard: Final Report: Project No. 103-247. Unpublished study prepared by Wildlife International Ltd. 18 p.
- 00161577 US Public Health Service, National Institutes of Health (1986) NTP Technical Report on the Toxicology and Carcinogenesis Studies of Ortho-phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice: (Dermal Studies). NIH Publication No. 86-2557. 144 p.
- 00164360 Rao, K. Proposed Reproduction Study Protocol: Orthophenylphenol: Two-generation Dietary Reproduction Study in Rats. Unpublished study prepared by Dow Chemical U.S.A. 12 p.
- 00164362 John, J.; Murray, F.; Rao, K.; et al. (1981) Teratological evaluation of orthophenylphenol in rats. Fundamental and Applied Toxicology 1(5-6):282-285.
- 40297500 Dow Chemical Co. (1987) Submission of Toxicity Data To Support the Registration of Dowicide 1 Antimicrobial. Transmittal of 1 study.
- 40297501 Fujii, T.; Nakamura, K.; Hiraga, K. (1987) Effects of pH on the carcinogenicity of o-phenylphenol and sodium o-phenylphenate in the rat urinary bladder. Food Chem. Toxicol. 25(5):359-362.
- 40760200 Dow Chemical Co. (1988) Submission of Toxicological Data to Support the Registration for Dowicide 1 Antimicrobial (Sodium o-Phenylphenate). Transmittal of 9 studies.
- 40760203 Hiraga, K. (1983) Carcinogenicity Testing of Sodium Orthophenylphenate in F-344/DuCrj Rats. Unpublished study prepared by Tokyo Metropolitan Research Laboratory of Public Health. 80 p.
- 40760204 Kamiya, N.; Hiraga, K. (1982) Uniformity of Test Article Concentrations in Pellet Diet Used Feeding Study. Unpublished Translation of Annu. Rept. Tokyo Metr. Res. Lab. of Public Health. 33:561-563. 13 p.
- 40760205 Nawai, S.; Ogata, A.; Yoshida, S.; et al. (1987) Quantitative Analysis of Sodium o-Phenylphenol Added into the Standard Animal Foods and Effect of Preservation. Unpublished Translation of

Ann. Rept. Tokyo Metr. Res. Lab. Public Health 29(2):97-98.  
11 p.

- 40760206 Iguchi, S.; Takahashi, H.; Fujii, T.; et al. (1984) Subchronic Toxicity of o-Phenolphenol (OPP) by Food Administration to Rats. Unpublished translation of Ann. Rept. Tokyo Res. Lab. 35: 407-415. 29 p.
- 40760207 Nakamura, K.; Iguchi, S.; Ikeda, T.; et al. (1981) Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Unpublished translation of Annu. Rept. Tokyo Res. Lab. 32(2): 33-39. 24 p.
- 40760208 Iguchi, S.; Tayama, K.; Hiraga, K. (1979) Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Unpublished translation of Ann. Rept. Tokyo Metr. Res. Lab. Public Health 30(2): 67-79. 38 p.
- 40760209 Tayama, K.; Nakamura, K.; Kamiya, N.; et al. (1984) Urinalysis of Male F344/DuCriJ Rats Fed with Sodium o-Phenylphenate (OPP-Na). Unpublished translation of Annu. Rept. Tokyo Res. Lab. 35:425-429. 17 p.
- 41301000 Dow Chemical Co. (1989) Submission of Data To Support Reregistration of Dowcide 1 & A Anti-microbial: Toxicology Data. Transmittal of 1 study.
- 41301001 Ishidate, M.; Yoshikawa, K.; Sofuni, T. (1983) Mutagenicity Tests on OPP, OPP-Sodium Salt and their Possible Metabolites. Unpublished study prepared by National Institute of Hygienic Sciences 15 p.
- 41465500 The Dow Chemical Co. (1990) Submission of Data to Support the Reregistration of Dowcide Antimicrobials Regarding Phase 2 Response. Transmittal of 1 study.
- 41465501 Kaneda, M.; Teramoto, S.; Shingu, A.; et al. (1978) Teratogenicity and dominant-lethal studies with o-phenylphenol. J. Pesticide Sci. 3:365-370.
- 41892100 The Dow Chemical Co. (1991) Submission of Data To Support Reregistration of Dowcide 1 and Dowcide A Antimicrobial: Toxicology Study. Transmittal of 1 study.
- 41892101 Berdasco, N. (1991) Orthophenylphenol: Dermal Sensitization Potential in the Hartley Albino Guinea Pig: Lab Project Number: K-001024-048. Unpublished study prepared by The Dow Chemical Co. 15 p.
- 42333100 Dow Chemical Co. (1992) Submission of toxicity data to support the reregistration of phenylphenol. Transmittal of 1 study.
- 42333101 Landry, T.; Stebbins, K.; Battjes, J. (1992) Ortho-phenylphenol: Acute Aerosol Inhalation Toxicity Study in

Rats: Lab Project Number: K-001024-049. Unpublished study prepared by Dow Chemical Co. 33 p.

- 43228200 Dow Chemical Co. (1994) Submission of toxicity data in support of the FIFRA 6(a)(2) requirement for Ortho-phenylphenol. Transmittal of 1 study.
- 43228201 Wright, P. (1994) Letter Sent to Registration Division, U.S. EPA dated May 3, 1994: Ortho-phenylphenol: (two-year dietary chronic toxicity/oncogenicity study in mice). Prepared by Dow Chemical Co. 3 p.
- 92154004 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160150. Ortho-phenylphenol Technical; an Acute Oral Toxicity Study with the Mallard: Project No. 103-248. Prepared by Wildlife International Ltd. 7 p.
- 92154005 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160151. Ortho-phenylphenol Technical; a Dietary LC50 Study with the Mallard: Project No. 103-247. Prepared by Wildlife International Ltd. 7 p.
- 92154006 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00160149. Ortho-phenylphenol Technical; a Dietary LC50 Study with the Bobwhite: Project No. 103-246. Prepared by Wildlife International Ltd. 7 p.
- 92154007 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00156044. Evaluation of the Toxicity of DOWICIDE 1 Antimicrobial Technical O-phenylphenol to Representative Aquatic Organisms: Laboratory Report ES-811. Prepared by Dow Chemical Company. 8 p.
- 92154009 Marouchoc, S. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00156044. Evaluation of the Toxicity of DOWICIDE 1 Antimicrobial Technical O-phenylphenol to Representative Aquatic Organisms: Laboratory Report ES-811. Prepared by Dow Chemical Company. 7 p.
- 92154010 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00093286 and Related MRIDs 00110204. Acute Toxicological Properties of DOWICIDE A Antimicrobial. Prepared by Dow Chemical Company. 6 p.
- 92154011 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00078779. DOWICIDE 1 Acute Percutaneous Absorption Potential. Prepared by Dow Chemical Company. 6 p.
- 92154012 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00139884. Eye Irritation Test Conducted on DOWICIDE 1 Antimicrobial. Prepared by Dow Chemical Company. 5 p.
- 92154013 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00093286 and Related MRIDs 00110204. Acute Toxicological

- Properties of DOWICIDE A Antimicrobial. Prepared by Dow Chemical Company. 5 p.
- 92154014 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Ortho-Phenylphenol and its Sodium Salt. Prepared by Dow Chemical Company. 6 p.
- 92154015 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760206 and Related MRIDs 00014992, 40760201, 40760205, 40760204. Subchronic Toxicity of o-Phenylphenol by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154016 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760207 and Related MRIDs 40760201, 40760204, 40760205. Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154017 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760208 and Related MRIDs 00091021, 00141535, 40760201, 40760204, 40760205. Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154018 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00161577. Toxicology and Carcinogenesis Studies of Ortho-Phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)Anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice (Dermal Studies). Prepared by National Toxicology Program. 7 p.
- 92154019 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00164361 and Related MRIDs 40760205. Long-term Toxicity and Carcinogenicity Study of Sodium o-Phenylphenate in B6C3F1 Mice. Prepared by Nagoya City University Medical School. 8 p.
- 92154022 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00067616 and Related MRIDs 00164362. The Effects of Orally Administered Orthophenylphenol on Rat Embryonal and Fetal Development. Prepared by Dow Chemical Company. 7 p.
- 92154023 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40976501. Two-generation Reproduction Study in Rats Using Orthophenylphenol: Study No. 85-671-02. Prepared by Mobay Corporation. 7 p.
- 92154024 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity of Orthophenylphenol and its Sodium Salt. Prepared by Dow Chemical Company. 8 p.
- 92154025 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID

- 00073282 and Related MRIDs 00079551. Mutagenicity Evaluation of Ortho-Phenylphenol. Prepared by Litton Bionetics, Inc. 6 p.
- 92154026 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00161577. Toxicology and Carcinogenesis Studies of Ortho-Phenylphenol (CAS No. 90-43-7) Alone and with 7,12-Dimethylbenz(a)Anthracene (CAS No. 57-97-6) in Swiss CD-1 Mice (Dermal Studies). Prepared by National Toxicology Program. 8 p.
- 92154027 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 40760203 and Related MRIDs 40760201, 40760204, 40760205. Carcinogenicity Testing of Sodium Orthophenylphenate in F-344/DuCrj Rats. Prepared by Tokyo Metropolitan Research Lab. 7 p.
- 92154028 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00014992 and Related MRIDs 40760201, 40760204, 40760205. Induction of Tumours of the Urinary Bladder in F344 Rats by Dietary Administration of o-Phenylphenol. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154029 Deford, C. (1990) Dow Chemical U S A Phase 3 Summary of MRID 00141535 and Related MRIDs 00091021, 40760201, 40760204, 40760205. Induction of the Tumours of the Urinary System in F344 Rats by Dietary Administration of Sodium o-Phenylphenate. Prepared by Tokyo Metropolitan Research Lab. 6 p.
- 92154032 Reitz, R. Fox, T. Quast, J. et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 00091022 and Related MRIDs 00145962. Molecular Mechanisms Involved in the Toxicity and Carcinogenicity of Orthophenylphenol and its Sodium Salt: Project HET-K-1025-8. Prepared by Dow Chemical Company. 49 p.
- 92154033 Mizoiri, S.; Hirokado, M.; Nakajima, K. et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760201. Quality and Determination of o-Phenylphenol-Na in Animal Feeds. Prepared by Tokyo Metropolitan Research Lab. 18 p.
- 92154034 Nawai, S.; Ogata, A.; Yoshida, S.; et al. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760205. Quantitative Analysis of Sodium o-Phenylphenol Added into the Standard Animal Foods and Effect of Preservation. Prepared by Tokyo Metropolitan Research Lab. 11 p.
- 92154035 Nakamura, K.; Iguchi, S.; Hiraga, K. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760207. Subacute Toxicity of o-Phenylphenol by Food Administration to Male Rats. Prepared by Tokyo Metropolitan Research Lab. 25 p.
- 92154036 Iguchi, S.; Tayama, K.; Hiraga, K. (1990) Dow Chemical U S A Phase 3 Reformat of MRID 40760208. Subacute Toxicity of Sodium o-Phenylphenate by Food Administration to Rats. Prepared by Tokyo Metropolitan Research Lab. 39 p.