Kenneth F. Plumb,

Secretary.

[FR Doc. 83-14552 Filed 5-31-83; 8:45 am]

BILLING CODE 6717-01-M

Office of Hearings and Appeals;

Objection to Proposed Remedial Order Filed, Period of April 18 Through April 29, 1983

During the period April 18 through April 29, 1983, the notice of objection to the proposed remedial order listed in the Appendix to this Notice was filed with the Office of Hearings and Appeals of the Department of Energy.

Any person who wishes to participate in the proceeding the Department of Energy will conduct concerning the proposed remedial order described in the Appendix to this Notice must file a request to participate pursuant to 10 CFR 105.194 within 20 days after publication of this Notice. The Office of Hearings and Appeals will then determine those persons who may participate on an active basis in the proceeding and will prepare an official service list, which it will mail to all persons who filed requests to participate. Persons may also be placed on the official service list as non-participants for good cause shown.

All requests to participate in this proceeding should be filed with the Office of Hearings and Appeals, Department of Energy, Washington, D.C. 20461.

Dated: May 25, 1983.

George B. Breznay,

Director, Office of Hearings and Appeals.

Damson Oil Doram Energy Corp., Houston, Texas, HRO-0149, Crude Oil.

On April 25, 1983, Damson Oil Corp./Doram Energy, Inc. 396 West Greens Rd., Houston, Texas 77067 filed a Notice of Objection to a Proposed Remedial Order the DOE Houston District Office of Enforcement issued to the firm on March 9, 1983. In the PRO the Houston District found that during March 1980 to December 1980, the prices which Damson charged in resales of crude oil during specified periods were in excess of actual purchase prices; Damson did not provide services traditionally associated with the resale of crude oil, violating 10 CFR 212.186, 210.62, 205.202. According to the PRO the Damson Oil Corp./Doram Energy Inc. violation resulted in $285,583.48 of overcharges.

[FR Doc. 83-14598 Filed 5-31-83; 8:45 am]

BILLING CODE 6450-01-M

ENVIRONMENTAL PROTECTION AGENCY

[OPTS-41011; TSH FRL 2370-4]

Twelfth Report of the Interagency Testing Committee to the Administrator; Receipt of Report and Request for Comments Regarding Priority List of Chemicals

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Interagency Testing Committee (ITC) established under section 4(e) of the Toxic Substances Control Act (TSCA), transmitted its Twelfth Report to the Administrator of EPA on May 11, 1983. This report, which revises and updates the Committee's priority list of chemicals, adds five designated chemicals to the list for priority consideration by EPA in the promulgation of test rules under section 4(a) of the Act. The new chemicals are calcium naphthenate, cobalt naphthenate, lead naphthenate, methylolurea and 2-phenoxyethanol. The Twelfth Report is included in this notice. The Agency invites interested persons to submit written comments on the Report, and to attend Focus Meetings to help narrow and focus the issues raised by the ITC's recommendations. Members of the public are also invited to inform EPA if they wish to be notified of subsequent public meetings on these chemicals. EPA also notes the removal of 15 chemicals from the priority list because EPA has responded to the ITC's prior recommendations for testing of the chemicals.

DATES: Written comments should be submitted by July 1, 1983. Focus Meetings will be held on July 20 and 21, 1983.

ADDRESSES: Send written submissions to: TSCA Public Information Office (TS-793), Office of Pesticides and Toxic Substances, Environmental Protection Agency, Rm. E-108, 401 M St., SW Washington, D.C. 20460.

Submissions should bear the Document Control Number OPTS-41011.

The public record supporting this action, including comments, is available for public inspection in Rm. E-107 at the address noted above from 8:00 a.m. to 4:00 p.m. Monday through Friday, except legal holidays. Focus Meetings will be held at Waterside Mall, in Rm. 3906, 401 M St., SW., Washington, D.C. Persons planning to attend one of the Focus Meetings and/or hoping to be informed of subsequent public meetings on these chemicals, should notify the TSCA Assistance Office at the address listed below. To insure seating accommodations at the Focus Meeting, persons interested in attending are asked to notify EPA at least 2 weeks ahead of the scheduled dates.

FOR FURTHER INFORMATION CONTACT: Jack P. McCarthy, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460, Toll Free: (800-424-9065), In Washington, D.C.: (544-1404), Outside the USA: (Operator-202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Background

Section 4(a) of TSCA (Pub. L. 94-469, 90 Stat. 2003; 15 U.S.C. 2601 *et seq.*) authorizes the Administrator of EPA to promulgate regulations requiring testing of chemical substances in order to develop data relevant to determining the risks that such chemical substances may present to health and the environment.

Section 4(e) of TSCA established an Interagency Testing Committee to make recommendations to the Administrator of EPA of chemical substances to be given priority consideration in proposing test rules under section 4(a). Section 4(e) directs the Committee to revise its list of recommendations at least every 6 months as it determines to be necessary. The ITC may "designate" up to 50 substances at any one time for priority consideration by the Agency. For such designations, the Agency must within 12 months either initiate rulemaking or issue in the **Federal Register** its reasons for not requiring testing. The ITC's Twelfth Report was received by the Administrator on May 11, 1983, and follows this Notice. The report designates 5 substances for priority consideration and response by EPA within 12 months.

II. Written and Oral Comments and Public Meetings

EPA invites interested persons to submit detailed comments on the ITC's new recommendations. The Agency is interested in receiving information concerning additional or ongoing health and safety studies on the subject chemicals as well as information relating to the human and environmental exposure to these chemicals. A notice is published elsewhere in today's **Federal Register** adding the 5 substances designated in the ITC's Twelfth Report to the TSCA section 8(d) rule. The section 8(d) rule requires the reporting of unpublished health and safety studies on the listed chemicals. These 5 chemicals will also be added to the TSCA section 8(a) Preliminary

Assessment Information rule through a **Federal Register** notice to be published in the near future.

Focus Meetings will be held to discuss relevant issues pertaining to the chemicals and to narrow the range of issues/effects which will be the focus of the Agency's subsequent activities in responding to the ITC recommendations. The Focus Meetings will be held July 20 and 21, 1983, at Waterside Mall, 401 M St., SW., Washington, D.C., Room 3906. These meetings are intended to supplement and expand upon written comments submitted in response to this notice. The schedule for the Focus Meetings is as follows: July 20, 9:00 a.m.—calcium, cobalt and lead naphthenates, July 21, 9:00 a.m.—2-phenoxyethanol, 1:00 p.m.—methylolurea. Persons wishing to attend one or more of these meetings should call the TSCA Assistance Office at the toll free number listed above at least 2 weeks in advance.

After consideration of the data pertaining to each chemical, and any additional information provided in the written comments and the Focus Meetings, EPA will hold public meetings on each chemical after preliminary decisions have been made on the types of testing that are needed. These meetings will be several months in the future, but separate notice of these meetings will not be published at that time. Therefore, anyone wishing to attend these later meetings should contact EPA now at the address given for the TSCA Assistance Office in order to be notified in advance of the public meetings.

All written submission should bear the identifying Docket No. OPTS-41011.

II. Status of List

In addition to adding the 5 designations to the priority list, the ITC's Twelfth Report notes the removal of 15 chemicals from the list since the last ITC report because EPA has responded to the Committee's prior recommendation for testing of the chemical. The 15 chemicals removed and the dates of publication of EPA's responses in the **Federal Register** are: acetonitrile, December 29, 1982 (47 FR 58020); acrylamide-environmental, January 6, 1983 (48 FR 725); antimony metal, antimony sulfide and antimony trioxide, January 6, 1983 (48 FR 717); 4-chlorobenzotrifluoride, November 8, 1982 (47 FR 50555); hexachloro-1,3-butadiene, December 29, 1982 (47 FR 58029); hexachlorocyclopentadiene, December 29, 1982 (47 FR 58023); isophorone, January 6, 1983 (47 FR 727); methyl ethyl ketone and methyl isobutyl ketone, December 29, 1982 (47 FR 58025); pyridine, December 29, 1982 (47 FR 58031); toluene, December 16, 1982 (47 FR 56391); tris(2-Chloroethyl) phosphite, November 1, 1982 (47 FR 49466); and xylenes, December 16, 1982 (47 FR 56392). The current list contains 36 designated substances or categories of substances and two recommended categories of substances.

Dated: May 18, 1983.

Don R. Clay,

Acting Assistant Administrator for Pesticides and Toxic Substances.

Twelfth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency

Summary

Section 4 of the Toxic Substances Control Act of 1976 (TSCA, Pub. L. 94-469) provides for the testing of chemicals in commerce that may present an unreasonable risk of injury to health or the environment. It also provides for the establishment of a Committee, composed of representatives from eight designated Federal agencies, to recommend chemical substances and mixtures (chemicals) to which the Administrator of the U.S. Environmental Protection Agency (EPA) should give priority consideration for the promulgation of testing rules.

Section 4(e)(1)(A) of TSCA directs the Committee to recommend to the EPA Administrator chemicals to which the Administrator should give priority consideration for the promulgation of testing rules pursuant to section 4(a). The Committee is required to designate those chemicals, from among its recommendations, to which the Administrator should respond within 12 months by either initiating a rulemaking proceeding under section 4(a) or publishing the Administrator's reason for not initiating such a proceeding. Every 6 months, the Committee makes those revisions in the TSCA section 4(e) Priority List that it determines to be necessary and transmits them to the EPA Administrator.

As a result of its deliberations, the Committee is revising the TSCA section 4(e) Priority List by the addition of 5 chemicals and is noting the removal of 15, as a result of responses by EPA.

The Priority List is divided into two parts: part A contains those recommended chemicals and groups designated for priority consideration and response by the EPA Administrator within 12 months, and part B contains chemicals and groups that have been recommended for priority consideration by EPA without being designated for response within 12 months. Although TSCA does not establish a deadline for EPA response to nondesignated chemicals and groups (part B of the Priority List), the Committee anticipates that the EPA Administrator will respond in a timely manner.

The entries being added to the Priority List are presented, together with the types of testing recommended, in the following Table 1.

TABLE 1.—ADDITIONS TO THE SECTION 4(e) PRIORITY LIST

Chemical/group	Recommended studies
A. Designated for response within 12 months	
Methylolurea (CAS No. 1000-82-4).	Health Effects: Short-term genotoxicity; toxicokinetics; long-term bioassay, if indicated by results of genotoxicity and toxicokinetic testing.
Calcium naphthenate (CAS No. 61789-36-4).	Chemical Fate: Abiotic and biotic persistence, including dissociation; transport, including soil mobility.
Cobalt naphthenate (CAS No. 61789-51-3).	Health Effects: Carcinogenicity; mutagenicity; teratogenicity; toxicokinetics; reproductive effects.
Lead naphthenate (CAS No. 61790-14-5).	Ecological Effects (depending on the results of chemical fate tests): Acute toxicity to fish and aquatic invertebrates; toxicity to plants; bioconcentration.
2-Phenoxyethanol (CAS No. 122-99-6).	Health Effects: Reproductive effects; teratogenicity; short-term genotoxicity; subchronic toxicity.
B. Recommended but not designated for response within 12 months	
None	—

TSCA Interagency Testing Committee

Statutory Member Agencies and Their Representatives

Council on Environmental Quality: Gordon F. Snow, Member.[1]

Department of Commerce: Bernard Greifer, Member.

Environmental Protection Agency: Carl R. Morris, Member and Arthur M. Stern, Alternate.

National Cancer Institute: Elizabeth K. Weisburger, Member and Chairperson: Richard Adamson, Alternate; and Jerrold Ward, Alternate.

National Institute of Environmental Health Sciences: Dorothy Canter, Member.

National Institute for Occupational Safety and Health: Vera W. Hudson, Member [2]; Herbert E. Christensen, Alternate [3]; Rodger L. Tatken, Member [4]; and Richard J. Lewis, Alternate.[5]

National Science Foundation: Winston C. Nottingham, Member and Vice Chairperson.

Occupational Safety and Health Administration: Patricia Marlow, Member.

Liaison Agencies and Their Representatives

Consumer Product Safety Commission: Arthur Gregory and Lakshmi Mishra.

Department of Agriculture: Fred W. Clayton [6] and Homer E. Fairchild.

Department of Defense: Arthur H. McCreesh.

Department of the Interior: None.

Food and Drug Administration: Winston deMonsabert and Allen H. Heim.

National Toxicology Program: Dorothy Canter.

Committee Staff

Martin Greif, Executive Secretary.

Norma Williams, ITC Coordinator.

Support Staff

Alan Carpien—Office of the General Counsel, EPA.

Jon Cooper [7]—Offico of Toxic Substances, EPA.

Joan Lefler—Office of Toxic Substances, EPA.

Stephen Ells [8]—Office of Toxic Substances, EPA.

Notes

(1) Dr. Snow terminated his association with the Committee on February 18, 1983.

(2) Ms. Hudson resigned as the NIOSH member of the Committee on January 30, 1983. She continues to serve in a technical support capacity as a representative of the National Library of Medicine.

(3) Dr. Christensen terminated his association with the Committee on January 30, 1983.

(4) Mr. Tatken was appointed on March 22, 1983.

(5) Mr. Lewis was appointed on March 22, 1983.

(6) Dr. Clayton terminated his association with the Committee on January 20, 1983.

(7) Dr. Cooper terminated his association with the Committee on February 4, 1983.

(8) Mr. Ells was appointed to the Committee support staff on February 17, 1983.

The Committee acknowledges and is grateful for the assistance and support given to it by the staffs of CRCS, Inc., and Dynamac Corporation (technical support prime and subcontractors) and personnel of the EPA Office of Toxic Substances.

Chapter 1—Introduction

1.1 *Background.* The TSCA Intergency Testing Committee (Committee) was established under section 4(e) of the Toxic Substances Control Act of 1976 (TSCA, Public Law 94-469). The specific mandate of the Committee is to recommend to the Administrator of the U.S. Environmental Protection Agency (EPA) chemical substances and mixtures in commerce that should be given priority consideration for the promulgation of testing rules to determine their potential hazard to human health and/or the environment. TSCA specifies that the Committee's recommendations shall be in the form of a Priority List, which is to be published in the **Federal Register**. The Committee is directed by section 4(e)(1)(A) of TSCA to designate those chemicals on the Priority List to which the EPA Administrator should respond within 12 months by either initiating a rulemaking proceeding under section 4(a) or publishing the Administrator's reason for not initiating such a proceeding.

Every 6 months, the Committee makes those revisions in the section 4(e) Priority List that it determines to be necessary and transmits them to the EPA Administrator.

The Committee is normally comprised of representatives from eight statutory member agencies, five liaison agencies, and one national program. Currently, representation from one statutory member agency and one liaison agency is lacking. The specific representatives and their affiliations are named in the front of this report. The Committee's chemical review procedures and prior recommendations are described in previous reports (Refs. 1 through 12).

1.2 *Committee's previous reports.* Eleven previous reports to the EPA Administrator have been issued by the Committee and published in the **Federal Register** (Refs. 2 through 12). Sixty-four entries (chemicals and groups of chemicals) were recommended for priority consideration by the EPA Administrator and designated for response within 12 months. In addition, two groups were recommended, without being so designated. Removal of twenty entries was noted in the previous reports.

1.3 *Committee's activities during this reporting period.* Between October 1, 1982, and March 31, 1983 the Committee continued to review chemicals from its third and fourth scoring exercises (see Ref. 2 for methodology). During this period, the Committee began the fifth round of scoring chemicals, to select candidates for in-depth review beginning in early 1984.

The Committee contacted approximately 30 manufacturers of the chemicals being reviewed to request information that would be of value in its deliberations. Many of the firms have provided unpublished information on current production, exposure, uses, and biological effects of chemicals under study by the Committee.

During this reporting period, the Committee evaluated 64 chemicals for priority consideration. Five chemicals were added to the section 4(e) Priority List, and 29 were deferred at this time. The remaining 30 chemicals are still under study.

1.4 *The TSCA section 4(e) Priority List.* Section 4(e)(1)(B) of TSCA directs the Committee to: "* * * make such revisions in the [priority] list as it determines to be necessary and * * * transmit them to the Administrator together with the Committee's reasons for the revisions." Under this authority, the Committee is revising the Priority List by adding five chemicals: methylolurea, calcium naphthenate, cobalt naphthenate, lead naphthenate, and 2-phenoxyethanol. All five chemicals are designated for response within twelve months. The testing recommended for these chemicals and the rationales for the recommendations are presented in Chapter 2 of this report.

Fifteen chemicals and groups are being removed from the Priority List because the EPA Administrator has responded to the Committee's prior recommendations for testing these chemicals. They are: acetonitrile, acrylamide, antimony metal, antimony sulfide, antimony trioxide, 4-chlorobenzotrifluoride, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, isophorone, methyl ethyl ketone, methyl isobutyl ketone, pyridine, toluene, tris(2-chloroethyl)phosphite, and xylenes.

With the 5 recommendations and 15 removals noted in this report, 36 entries now appear on the section 4(e) Priority List. The Priority List is divided in the following Table 2 into two parts; namely, Table 2A, Chemicals and Groups Designated for Response Within 12 Months, and Table 2B, Other Recommended Chemicals and Groups.

TABLE 2.—THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1983

[2A. Chemicals and Groups Designated for Response Within 12 Months]

Entry	Date of designation
1. Alkyl epoxides	October 1977
2. Aniline and bromo-, chloro-, and/or nitroanilines.	April 1979
3. Aryl phosphates	April 1978
4. Biphenyl	May 1982 [1]
5. Bis(2-ethylhexyl) terephthalate	November 1982 [1]
6. Calcium naphthenate	May 1983
7. Chlorinated benzenes, mono- and di-	October 1977
8. Chlorinated benzenes, tri-, tetra-, and penta-.	October 1978
9. Cobalt naphthenate	May 1983
10. Cresols	October 1977
11. Cyclohexanone	April 1979
12. Dibutyltin bis(isooctyl maleate)	November 1982 [1]
13. Dibutyltin bis(isooctyl mercaptoacetate).	November 1982 [1]
14. Dibutyltin bis(lauryl mercaptide)	November 1982 [1]
15. Dibutyltin dilaurate	November 1982 [1]
16. 1,2-Dichloropropane	October 1978

TABLE 2.—THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1983—Continued

[2A. Chemicals and Groups Designated for Response Within 12 Months]

Entry	Date of designation
17 Dimethyltin bis(isooctyl mercaptoacetate).	November 1982 [1]
18. 1,3-Dioxolane	November 1982 [1]
19. Ethyltoluene	May 1982 [1]
20. Formamide	May 1982 [1]
21. Glycidol and its derivatives	October 1978
22. Halogenated alkyl epoxides	April 1978
23. Hydroquinone	November 1979
24. Lead naphthenate	May 1983
25. Mesityl oxide	April 1979
26. 4,4'-Methylenedianiline	April 1979
27 Methylolurea	May 1983
28. Monobutyltin tris(isooctyl mercaptoacetate).	November 1982 [1]
29. Monomethyltin tris(isooctyl mercaptoacetate).	November 1982 [1]
30. 2-Phenoxyethanol	May 1983
31 Quinone	November 1979
32. 4-(1,1,3,3-Tetramethylbutyl)phenol	November 1982 [1]
33. 1,2,4-Trimethylbenzene	May 1982 [1]
34. Tris(2-ethylhexyl) trimellitate	November 1982 [1]

[2B. Other Recommended Chemicals and Groups]

Entry	Date of recommendation
1. Carbofuran intermediates	November 1982 [1]
2. Trimethylbenzenes	May 1982 [2]

[1] The dates of designation and recommendation have been revised to reflect when the revised lists were actually delievered to the EPA Administrator, rather than the dates when the reports were prepared.

[2] Recommended to the EPA Administrator in May 1982 and added to the section 4(e) Priority List in November 1982.

To date, 35 chemicals and groups have been removed from the Priority List. The cumulative list is presented in the following Table 3.

TABLE 3.—CUMULATIVE REMOVALS FROM THE TSCA SECTION 4(e) PRIORITY LIST—MAY 1983

Chemical/group	EPA responses to committee recommendations	
	"Federal Register"	
	Citation	Publication date
1. Acetonitrile	47 FR 58019-58023	Dec. 29, 1982.
2. Acrylamide	48 FR 724-727	Jan. 6, 1983.
3. Alkyl phthalates	46 FR 53775-53777	Oct. 30, 1981.
4. Alkyltin compounds	46 FR 5456-5463	Feb. 5, 1982. [1]
5. Antimony metal	48 FR 716-725	Jan. 6, 1983.
6. Antimony sulfide	48 FR 716-725	Jan. 6, 1983.
7 Antimony trioxide	48 FR 716-725	Jan. 6, 1983.
8. Benzidine-based dyes	46 FR 55005-55006	Nov. 5, 1981.
9. Benzyl butyl phthalate	46 FR 53775-53777	Oct. 30, 1981.
10. Butyl glycolyl butyl phthalate	46 FR 54487	Nov. 2, 1981.
11 Chlorendic acid	47 FR 44878-44879	Oct. 12, 1982.
12. Chlorinated naphthalenes	46 FR 54491	Nov. 2, 1981.
13. Chlorinated paraffins	47 FR 1017-1019	Jan. 8, 1982.
14. Chlorobenzotrifluoride	47 FR 50555-50558	Nov. 8, 1982.
15. Chloromethane	45 FR 48524-48564	July 18, 1980.
16. 2-Chlorotoulene	47 FR 18172-18175	Apr. 28, 1982.
17. o-Dianisidine-based dyes	46 FR 55005-55006	Nov. 5, 1981.
18. Dichloromethane	46 FR 30300-30320	June 5, 1981.
19. Diethlyenetriamine	47 FR 18386-18391	Apr. 29, 1982.
20. Fluoralkenes	46 FR 53704-53708	Oct. 30, 1981.
21. Hexachloro-1,3-butadiene	47 FR 58209-58031	Dec. 29, 1982.
22. Hexachlorocyclopentadiene	47 FR 58023-58025	Dec. 29, 1982.
23. Hexachloroethane	47 FR 18175-18176	Apr. 28, 1982.
24. Isophorone	48 FR 727-730	Jan. 6, 1983.
25. Methyl ethyl ketone	47 FR 58025-58029	Dec. 29, 1982.
26. Methyl isobutyl ketone	47 FR 58025-58029	DEc. 29, 1982.
27 Nitrobenzene	46 FR 30300-30320	June 5, 1981.
28. Phenylenediamines	47 FR 973-983	Jan. 8, 1982.
29. Polychlorinated terphenyls	46 FR 54482-54483	Nov. 2, 1981.
30. Pyridine	47 FR 58031-58035	Dec. 29, 1982.
31. o-Tolidine-based dyes	46 FR 55005-55006	Nov. 5, 1981.
32. Toluene	47 FR 56391-56393	Dec. 16, 1982.
33. 1,1,1-Trichloroethane	46 FR 30300-30320	June 5, 1981.
34. Tris(2-chloroethyl)phosphite	47 FR 49466-49467	Nov. 1, 1982.
35. Xylenes	47 FR 56392-56394	Dec. 16, 1982.

[1] Removed by the Committee for reconsideration. Seven individual group members were subsequently designated in the 11th ITC Report (Ref. 12) for priority consideration.

References

(1) Preliminary List of Chemical Substances for Further Evaluation. Toxic Substances Control Act Interagency Testing Committee, July 1977.

(2) Initial Report to the Administrator, Environmental Protection Agency, TSCA Interagency Testing Committee, October 1, 1977. Published in the **Federal Register** of Wednesday, October 12, 1977, 42 FR 55026–55080. Corrections published in the **Federal Register** of November 11, 1977, 42 FR 58777–58778. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560–10–78/001, January 1978.

(3) Second Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, April 1978. Published in the **Federal Register** of Wednesday, April 19, 1978, 43 FR 16684–16688. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560–10–78/002, July 1978.

(4) Third Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, October 1978. Published in the **Federal Register** of Monday, October 10, 1978, 43 FR 50630–50635. The report and supporting dossiers were also published by the Environmental Protection Agency, EPA 560–10–79/001, January 1979.

(5) Fourth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, April 1979. Published in the **Federal Register** of Friday, June 1, 1979, 44 FR 31866–31889.

(6) Fifth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, November 1979. Published in the **Federal Register** of Friday, December 7, 1979, 44 FR 70664–70674.

(7) Sixth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, April 1980. Published in the **Federal Register** of Wednesday, May 28, 1980, 45 FR 35897–35910.

(8) Seventh Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, October 1980. Published in the **Federal Register** of Tuesday, November 25, 1980, 45 FR 78432–78446.

(9) Eighth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, April 1981. Published in the **Federal Register** of Friday, May 22, 1981, 46 FR 28138–28144.

(10) Ninth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, October 1981. Published in the **Federal Register** of Friday, February 5, 1982, 47 FR 5456–5463.

(11) Tenth Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, April 1982. Published in the **Federal Register** of Tuesday, May 25, 1982, 47 FR 22585–22596.

(12) Eleventh Report of the TSCA Interagency Testing Committee to the Administrator, Environmental Protection Agency. TSCA Interagency Testing Committee, October 1982. Published in the **Federal Register** of Friday, December 3, 1982, 47 FR 54625–54644.

Chapter 2—Recommendations of the Committee

2.1 *Chemicals recommended for priority consideration by the EPA Administrator.* As provided by section 4(e)(1)(B) of TSCA, the Committee is adding the following five chemical substances to the section 4(e) Priority List: methylolurea, calcium naphthenate, cobalt naphthenate, lead naphthenate,

and 2-phenoxyethanol. The recommendation of these chemicals is being made after considering the factors identified in section 4(e)(1)(A) and other available relevant information, as well as the professional judgment of Committee members.

The five recommendations designated for response by the EPA Administrator within 12 months and supporting rationales are presented in section 2.2 of this report.

2.2 *Chemicals designated for response within 12 months with supporting rationales.*

2.2.a *Methylolurea*

Summary of recommended studies. It is recommended that methylolurea be tested for the following:

Health Effects:

Short-term genotoxicity

Toxicokinetics

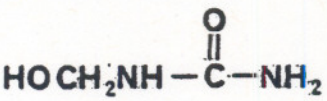
Long-term bioassay, if indicated by results of genotoxicity and toxicokinetic testing

Physical and Chemical Information

CAS Number: 1000-82-4.

Synonyms: Urea (hydroxymethyl) (CA Index name); urea-formaldehyde monomer; urea-formaldehyde precondensate.

Structural Formula:



Empirical Formula: $C_2H_6N_2O_2$.

Molecular Weight: 90.

Melting Point: 111° C.

Boiling Point: Decomposes.

Solubility in Water: Soluble (Walker, 1964).

Log Octanol/Water Partition Coefficient: −3.3 (estimated; Leo, et al., 1971).

Description of Chemical: Colorless solid.

Rationale for Recommendations

I. *Exposure information—Production/use/disposal.* Methylolurea is a monomer used in the preparation of urea-formaldehyde (U-F) resins and in the manufacture of controlled release fertilizers (Georgia Pacific Corp., 1982a, 1982b). In 1977, between 31 and 161 million pounds were produced for commerce in the United States (EPA, 1982).

Methylolurea is also produced as a nonisolated intermediate in the production of U-F resins. In 1981, 1.7 billion pounds of U-F resins were produced (C&EN, 1982). The estimated domestic consumption of U-F resins by category of use for 1978 is given in the following Table 4.

TABLEL 4—ESTIMATED DOMESTIC CONSUMPTION OF UREA RESINS IN 1978[1]

Use category	Millions of pounds
Particleboard [2]	910
Medium-denisty fiberboard [3]	135
Plywood	95
Molding compounds [3]	61
Paper treating and coating	55
Textile treatment [4]	40
Surface coatings	30
Foam	30
Miscellaneous	9–10

[1] Adapted from CEH (1979).
[2] Includes melamine-urea-formaldehyde resins.
[3] Includes fillers, which account for 35–50 percent.
[4] Includes modified urea resins such as ethyleneurea, triazine, and uron.

The principal use of these resins is as particleboard adhesives.

Prior to polymerization through heat and pH adjustment, U-F prepolymers or precondensates are composed of methylolurea and its oligomers in various concentrations depending on the application and the precondensate stage; from 29 to 40 percent methylolurea has been reported to be present (Kumlin and Simonson, 1981; Tomita and Hirose, 1976; Meyer, 1979). Consequently, exposure to the precondensate would result in exposure to methylolurea.

The amount of residual methylolourea in cured U-F resins has not been adequately determined (Hsiao and Villaume, 1978). Its presence may be inferred from the release of formaldehyde from U-F resin products. Methylolurea hydrolyzes readily to release formaldehyde (Hsiao and Villaume, 1978). Furthermore, the level of formaldehyde released from wood products containing U-F resins has been shown to correlate directly with the absorption of water by the product (Meyer, 1979). Formaldehyde has been detected in a number of occupational settings where U-F resins are present (Hsiao and Villaume, 1978).

In occupational settings, exposure to U-F resins, and consequently exposure to methylolurea, may occur at any stage in the production of a material containing U-F resins. For example, during the manufacture of particleboard, inhalation exposure may occur when the prepolymer is atomized and sprayed onto wood chips as liquid droplets ranging in size from 20 to 80 microns (Meyer, 1979). Exposure may also occur when the prepolymer is applied to textiles by soaking, drying, and heating to impart wrinkle resistance and water repellency to fabrics (CEH, 1979). Operations such as sawing or sanding particleboard may generate dust containing residual methylolurea.

In a 1972–74 survey, NIOSH estimated that 391,074 workers are potentially exposed to U-F resins (NIOSH, 1976). The fraction of these workers exposed to methylolurea is not known.

II. *Chemical fate information*—Methylolurea is not expected to persist in the environment (Landquist, 1955).

III. *Biological effects of concern to human health*—

A. *Toxicokinetics (absorption, distribution, and excretion).* No information was found.

B. *Metabolism.* No information was found.

C. *Genotoxicity.* When methylolurea (urea-formaldehyde precondensate) was administered to 48 outbred male rats via intragastric intubation, chromosomal aberrations of the bone marrow cells were seen at 24 hours and 48 hours after treatment. The dosage was reported to be one-tenth the LD_{50}; however, neither the dosage nor the LD_{50} was given. Three hundred to four hundred anaphases and telophases were analyzed per animal. Statistical analysis of the data revealed a reliable difference between the number of chromosomal aberrations in the bone marrow cells of treated versus control groups at 24 or 48 hours (Erkis and Ratpan, 1973). The authors concluded that methylolurea was "genetically dangerous."

In addition, Morin and Kubinski (1978) tested a precondensate of urea-formaldehyde containing methylolurea in a system that determines the ability of methylolurea to react with macromolecules. The precondensate changed the apparent molecular weight of the isolated DNA and increased the rate of attachment of DNA to bacterial and animal cells. A positive correlation was reported between this property and the ability of tested compounds to produce cancer in vivo.

D. *Short-term (acute) effects.* No information was found.

E. *Long-term (subchronic/chronic effects).* No information was found.

F. *Reproductive effects and teratogenicity.* No information was found.

G. *Rationale for health effects recommendations.* A potential exists for occupational exposure to methylolurea in U-F resin precondensates and for user exposure to methylolurea in particleboard and other products containing the compound as a residue.

Two preliminary genotoxicity tests of methylolurea were positive. A battery of short-term genotoxicity tests should be performed to evaluate further the compound's genotoxic potential.

Since methylolurea readily releases formaldehyde, there is concern about its

fate in the body. Because no toxicokinetic study reports have been found, such testing should be undertaken. If the results of the genotoxicity tests and toxicokinetic studies increase suspicion as to the potential toxicity of methylolurea, further testing such as a long-term bioassay should be undertaken.

IV. *Ecological effects*—No ecological-effects testing is recommended because of the low persistence of methylolurea.

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2.2.b *Naphthenate Metal Salts*

Summary of recommended studies. It is recommended that cobalt, lead, and calcium naphthenates be tested for the following:

A. Chemical Fate: Abiotic and biotic persistence, including dissociation; transport, including soil mobility.

B. Health Effects: Carcinogenicity, mutagenicity, teratogenicity, toxicokinetics, reproductive effects.

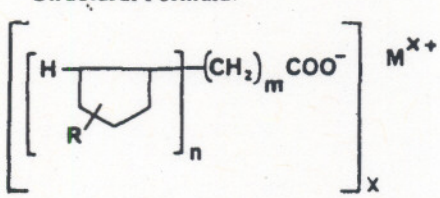
C. Ecological Effects (The following ecological tests are recommended, depending on the results of chemical fate tests.): Acute toxicity to fish and aquatic invertebrates, toxicity to plants, bioconcentration.

Physicial and Chemical Information

CAS Numbers: Cobalt naphthenate, 61789–51–3; lead naphthenate, 61790–14–5; calcium naphthenate, 61789–36–4.

Synonyms: Naphthenic acids, cobalt salts (CA index name); naphthenic acids, lead salts (CA index name); naphthenic acids, calcium salts (CA index name).

Structural Formula:



R = alkyl group (usually methyl)

n = 1 to 5 (fused) cyclopentane rings

m = greater than 1

x = valence state of anion

M = metal cation with valence X

Empirical Formula: A naphthenate metal salt is a mixture of the respective metal derivative (cobalt, lead, or calcium) of naphthenic acid containing a specified percentage of metal by weight. The physical state of the metal salt (whether liquid or solid) depends on the type and amount of metal present, the mode of preparation, and the nature of the organic acid used (Kirk-Othmer, 1965). The metal moiety is considered the active part of the metal salt, and the naphthenic acid part serves as the carrier for the metal. This relationship allows required concentrations of heavy metals to be dissolved in organic, solvent-based paints as driers, in lubricants as anticorrosive and extreme pressure agents, in various organic systems as catalysts, and in solvents as preservatives (Kirk-Othmer, 1981).

Naphthenic acid, itself, is predominantly a mixture of alicyclic monocarboxylic acids with single or fused (usually two) cyclopentane rings. Typical naphthenic acids undergo the same chemical reactions as other saturated monocarboxylic acids, including esterification, amidation, and saponification. Their solubility in a variety of organic solvents accounts for their preferred use in the formation of metal salts (Kirk-Othmer, 1981).

Additional physical and chemical information is given in the following Table 5.

TABLE 5.—PHYSICAL AND CHEMICAL PROPERTIES OF THREE METAL NAPHTHENATES

Chemical	Metal content (percent)	Molecular weight range [1]	Melting point [2] (°C)	Boiling range [3] (°F)	Specific gravity [3] (77°dF)	Solubility [4]	Physical State
Cobalt naphthenate	6	239–409	([5])	315–380	0.91–0.95	Soluble in oils, alcohol, ether.	Liquid.
Cobalt naphthenate	10.5	239–409	77	([5])	1.16	....do	Solid.
Lead naphthenate	16	387–557	([5])	([5])	([5])	Soluble alcohol	Liquid.
Lead naphthenate	24	387–557	([5])	([5])	1.07–1.13	....do	Do.
Lead naphthenate	37	387–557	30	([5])	1.53	....do	Solid.
Calcium naphthenate	4	220–390	([5])	315–380	0.89–0.93	Soluble in ethyl acetate, carbon tetrachloride, gasoline, benzene.	Liquid.
Calcium naphthenate	5	220–390	([5])	315–380	0.92–0.96	....do	Do.

[1] Estimated (Kirk-Othmer, 1981).
[2] Kirk-Othmer, 1965.
[3] Troy Chemical Co. 1982.
[4] All the metal salts are water insoluble due to the large size and composition of the napthenic acid moiety (Kirk-Othmer, 1979b).
[5] Not found.

Rationale for Recommendations

I. *Exposure information*—A. *Production/use/disposal.*

All three metal naphthenates are produced by the reaction between sodium napthenate and the respective metal donors, i.e., cobaltous hydroxide, lead oxide, or an aqueous solution of calcium salts (Hawley, 1981).

The TSCA Inventory listed the followng 1977 annual production ranges:

cobalt naphthenate, 1,300,000 to 13,000,000 pounds (with 9 manufacturers); lead naphthenate, 1,440,000 to 14,400,000 pounds (with 11 manufacturers); and calcium naphthenate, 1,000,000 to 11,000,000 pounds (with 11 manufacturers) (EPA, 1982). The 1980 U.S. International Trade Commission Report included the following production figures for the solid naphthenates only: cobalt naphthenate, 2,361,000 pounds; lead naphthenate, 5,131,000 pounds; and calcium naphthenate, 741,000 pounds (USITC, 1980).

All three metal naphthenates are used primarily as driers for coatings (e.g., oil-based paints, varnishes, and printing inks) to acclerate the drying process. Additional uses may include: for cobalt, with various phenols to improve the adhesion of sulfur-vulcanized rubber to metals, and as a catalyst for oxidation of isopropyl benzene; for lead, as a lubricant for anticorrosion and extreme-pressure properties; and for calcium, in adhesives, wood fillers, grafting waxes, and cements (Kirk-Othmer, 1979b; Hawley, 1981).

B. *Evidence for exposure.* In view of the high production volumes, a considerable number of workers may be exposed to the three metal naphthenates.

The National Occupational Exposure Survey (formerly the National Occupational Hazard Survey) indicates that approximately 80,000 workers are potentially exposed to cobalt naphthenate (NIOSH, 1980). OSHA has established a limit of 0.1 mg/m³ as the 8-hour TWA concentration for exposure to cobalt metal, fumes, and dust (OSHA, 1981a).

An estimated 2 million workers are potentially exposed to lead naphthenate (NIOSH, 1980). OSHA's current TWA standard for lead, which includes organic lead salts, is 50 ug/m³ (OSHA, 1881b).

The number of workers potentially exposed to calcium naphthenate has been estimated to be 9,960 (NIOSH, 1980). OSHA has established an 8-hour TWA of 5 mg/m³ for calcium oxide (OSHA, 1981a).

Since all three metal naphthenates are used primarily as driers in paints, varnishes, and printing inks, there exists potential exposure for the general population. In addition, because of their large volumes of production and wide variety of uses, the cobalt, lead, and calcium naphthenates are likely to enter the aquatic environment.

II. *Chemical fate information.*

No test data on the environmental transport or persistence of naphthenate metal salts have been identified. The extent of dissociation of the metal salts—cobalt, lead, and calcium naphthenates—is unknown. The molecular weight and complexity of the naphthenates (e.g., the number of chemical rings, branched side-chains, or number of chemical additions to the rings) will depend on the feedstock of these materials. Several of the metal naphthenates with higher molecular weights are expected to resist biodegradation.

III. *Biological effects of concern to human health*—A. *Toxicokinetics (absorption, distribution, and excretion).*

Skin-painting studies have shown that lead naphthenate may be absorbed through the skin of rats and mice. The absorbed lead may be distributed to the kidneys, blood, liver, spleen, muscle, and brain (Rastogi and Clausen, 1976; Rasstogi et al., 1976; Baldwin et al., 1964).

The absorption of lead naphthenate after oral administration to rats was studied (Rockhold, 1955). Twenty doses of a 0.25 ml solution of lead naphthenate were given to rats over a 1-month period, after which the animals were sacrificed. Analyses of the hair and liver indicated distribution and accumulation of lead in the hair, but not in the liver. In a separate study, the author also found that about 40 percent of the total lead naphthenate administered by gavage (3.78 g/kg) was excreted in about 3 days.

Toxicokinetic studies have not been found for cobalt or calcium naphthenate.

B. *Mutagenicity.* No data on the mutagenic activity of the three metal naphthenates have been found.

C. *Short-term (acute) effects.* The LD_{50}s in rats after oral administration were determined to be 3.9 g/kg for cobalt naphthenate and 5.1 g/kg for lead naphthenate (Rockhold, 1955).

D. *Long-term (subchronic/chronic) effects.*

1. *Neurotoxicity.* In a skin painting and subcutaneous injection study (Rastogi and Clausen, 1976), total lead accumulation in the rat brain was found to be higher after lead naphthenate treatment than after lead acetate treatment to separate groups of rats. In addition, a paralytic syndrome was found in the lead naphthenate-treated animals. The groups of rats were either skin painted or injected with 0.5 ml of lead naphthenate of lead acetate solution on alternate days over a 9-day period, with a total of 5 doses administered. Two days after dosing was completed, the animals were sacrificed and various organs removed and analyzed for lead content.

The distribution of lead in organs (other than the brain) such as the kidneys, liver, spleen, and muscles was found to be higher after lead acetate than after lead naphthenate treatment.

Information on the neurotoxicity of cobalt and calcium naphthenates has not been found.

2. *Behavioral effects.* Cutaneous application of a 0.2 ml lead naphthenate solution on alternate days for one week resulted in hyperactivity and aggressiveness in rats (Rastogi et al., 1976). Such behavioral changes are recognized as the earliest symptoms of lead poisoning (NAS, 1972).

Information on behavioral effects of cobalt and calcium naphthenates was not found.

3. *Carcinogenicity.* The carcinogenicity of cobalt naphthenate has been studied in both rabbits and mice (Nowak, 1961, 1966).

The development of tumors at the site of injection was reported in 9 of 12 rabbits (Nowak, 1961). The animals were injected with cobalt naphthenate in one of the following sites: thigh muscle, blood vessel of the ear, liver, or pleura. The tumor-inducing dose appeared to be 0.1 ml/kg administered two to four times weekly until termination of the experiment at 6 months. Controls were not discussed by the author.

Nowak also reported a carcinogenic effect of cobalt naphthenate in mice (Nowak, 1966). Thirty mice received single intramuscular injections of 0.02 ml of cobalt naphthenate. Injection-site tumors developed in 8 of the 30 animals over a one-to three-month period. Controls were not discussed.

Lead naphthenate was considered to be carcinogenic in a skin painting study with mice (Baldwin et al., 1964). A 20 percent solution of lead naphthenate in benzene was applied to the dorsal skin of 59 mice once or twice weekly for 12 months (the total dose of lead naphthenate was 6 ml). The animals were observed for an additional 6 months before being sacrificed. Skin tumors were found in 2 of 59 mice. However, the authors described marked kidney damage and tubular adenomata (including one renal carcinoma) in 4 of the 59 animals skin painted with lead naphthenate. Controls were not discussed.

No information was found on the carcinogenicity of calcium naphthenate.

E. *Reproductive effects.* No information was found on the reproductive effects of the three metal naphthenates.

F. *Teratogenicity.* No information was found on cobalt, lead, or calcium naphthenates; however, adequate information does exist on the teratogenicity of other lead compounds.

C. *Rationale for health effects recommendations.* Although trace amounts of cobalt and calcium are needed for normal body function, sufficient evidence in humans exists that indicates the toxic effects of the three metals—cobalt, lead, and calcium. Cobalt metal, cobalt oxides, and certain cobalt salts may cause respiratory and cardiovascular disease (NIOSH, 1982). Lead compounds have been shown to attack the central nervous system as well as the urinary and hematopoietic systems (NAS, 1972). Certain calcium salts, calcium oxide and calcium cyanamide are known to cause diseases of the skin and respiratory system (DHEW, 1977). Sufficient evidence does not exist, however, to characterize properly the overall toxicological properties of the naphthenate salts of these three metals.

The available caricinogenicity studies on cobalt naphthenate (Nowak, 1961, 1966) and lead naphthenate (Baldwin, 1964) are inadequate, mainly because of the omission of data on experimental controls. No data were found concerning the carcinogenic potential of calcium naphthenate. For all three metal naphthenates there exists considerable occupational exposure and a concern for human health. Therefore, carcinogenicity studies are recommended for cobalt, lead, and calcium naphthenates. It is also recommended that the route of administration be via inhalation, which may be more relevant to the occupational exposure.

Reproductive and teratogenic effects studies are recommended for all three metal naphthenates to determine any adverse effects on male and female organs of reproduction, as well as adverse effects on offspring.

Mutagenicity studies are recommended for all three metal naphthenates to investigate the potential for any genotoxic effects.

Toxicokinetic studies are also recommended for all three metal naphthenates to determine the absorption, distribution, excretion, and major metabolic products of cobalt, lead, and calcium naphthenates.

IV. *Ecological effects of concern.*—A. *Short-term (acute) effects.*

No studies on the short-term effects of cobalt, lead, and calcium naphthenates have been found for either aquatic animals or plants.

B. *Long-term (subchronic/chronic) effects.* No studies on the long-term effects of cobalt, lead, or calcium naphthenates have been found for either aquatic animals or plants.

C. *Other effects (physiological/behavioral/ecosystem processes).* No studies on physiological, behavioral, or ecosystem effects of lead, cobalt, or calcium naphthenate have been found.

D. *Bioconcentration and food-chain transport.* The octanol-water partition coefficients for cobalt, lead or çalcium naphthenates cannot be calculated by the method of Leo et al. (1971); consequently, the bioconcentration factors cannot be estimated.

E. *Rationale for ecological effects recommendations.* Cobalt, lead, and calcium naphthenates are produced in large quantities with a variety of uses; consequently, it is likely that they will enter the aquatic environment. The rate of degradation of naphthenate and a metal complex (cvobalt, lead, or calcium) is not known, but naphthenate salts are expected to be persistent. Chemical fate studies are recommended to provide information on the abiotic and biotic transformation rates of these chemicals.

The results of the recommended chemicals fate studies are important in determining the approach to the ecological effects testing of cobalt, lead, or calcium naphthenates. If dissociation does not occur, or occurs only partly, it will be necessary to test cobalt, lead, and calcium naphthenates to determine their toxicities. By contrast, if complete dissociation does occur, it will be necessary to determine only the toxicity of the naphthenate fraction, since the toxicities of the metal ions are already known. Acute toxicity studies on fish and aquatics invertebrates and toxicity tests on plants are recommended because of anticipated exposure and insufficient toxicity data.

Bioconcentration testing is recommended to characterize the bioconcentration potential for cobalt, lead, and calcium naphthenates.

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2.2.c *2-Phenoxyethanol*

Summary of recommended studies. It is recommended that 2-phenoxyethanol be tested for the following:

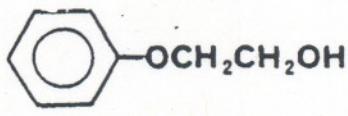
Health Effects: Reproductive effects, teratogenicity, short-term genotoxicity, subchronic toxicity.

Physical and Chemical Information

CAS number: 122–99–6.

Synonyms: Ethanol, 2-phenoxy- (CA index name); glycol monophenyl ether; β-hydroxyethyl phenyl ether; 1-hydroxy-2-phenoxyethane; phenyl Cellosolve®; Dowanol EP®

Structural Formula:



Empirical Formula: $C_8H_{10}O_2$.
Molecular Weight: 138.2.

Description: Colorless liquid with a slight rose odor (Dow Chemical Co., 1982).

Melting Point: 12° C (Rohm and Haas Co., 1982).

Boiling Point: 244.9° C (Dow Chemical Co., 1982).

Vapor Pressure: 0.03 mm Hg at 20° C (Dow Chemical Co., 1982).

Specific Gravity: 1.104 (25/25° C) (Dow Chemical Co., 1982).

Solubility in Water: 2.6 g/100 ml (Dow Chemical Co., 1982).

Solubility in Organic Solvents: Miscible with propylene glycol, ethanol, ether, benzene (Dow Chemical Co., 1982).

Log Octanol/Water Partition Coefficient: 1.20 (measured; Gilbert et al., 1978).

RATIONALE FOR RECOMMENDATIONS

I. *Exposure information*—A. *Production/use/disposal.*

The current industry estimate of 2-phenoxyethanol production is in excess of 5 million pounds annually. U.S. production of 2-phenoxyethanol in 1977 was reported in the TSCA Inventory to be from 1 million to 10 million pounds (EPA, 1982).

2-Phenoxyethanol is used primarily as a coalescing agent in latex paints (Dow Chemical Co., 1982) and as a solvent in paint removers, industrial cleaners and photographic processing (Borghi, 1982). A minor portion of total production is used as a carrier for the dyeing of polyester fibers, as an ink solvent for ballpoint and felt tip pens (Dow Chemical Co., 1982), as a preservative in cosmetics, and as a fragrance in household cleaners (Borghi, 1982). It is also used as an intermediate in the manufacture of an industrial surfactant (Rohm and Haas Co., 1982). The compound is also used in the synthesis of plasticizers, germicides, and pharmaceuticals (Hawley, 1977).

B. *Evidence for exposure.* In a 1972–74 survey, NIOSH estimated that 10,000 workers were potentially exposed to 2-phenoxyethanol in the workplace (NIOSH, 1982). Its use in paints and paint removers, household cleaners and various other consumer products indicates the potential for exposure of the general population to the compound.

II. *Chemical fate information.*

2-Phenoxyethanol is a relatively nonvolatile chemical that is expected to biodegrade in the environment and in waste treatment plants at environmentally relevant concentrations (Roesch and Dietrichs, 1971; Gilbert et al., 1977, 1978; Stickler, 1974). No chemical fate testing is recommended.

III. *Biological effects of concern to human health.*—A. *Toxicokinetics and metabolism.*

No information was found. 2-Phenoxyethanol is expected to be biotransformed to 2-phenoxyacetic acid by analogy with mono alkyl glycol ethers.

B. *Genotoxicity.* No explicit information on the genotoxicity of 2-phenoxyethanol was found. The compound was evaluated as a solvent for bacterial mutagenicity testing and was found to be too toxic for this use (Maron et al., 1981).

Two alkyl analogs of 2-phenoxyethanol have been tested for genotoxicity. 2-Ethoxyethanol was negative in the *Salmonella* assay, both with and without metabolic activation. It was positive for chromosomal aberrations and sister chromatid exchanges in Chinese hamster ovary cells. 2-Methoxyethanol induced an increased incidence of sex-linked recessive mutations in *Drosophila,* but was negative in the unscheduled DNA synthesis and rat bone marrow cytology assays. 2-Methoxyethanol caused sterility in rats in a dominant lethal assay and an increased incidence of abnormally shaped sperm in mice (NTP, 1982).

C. *Short term (acute) effects.* The acute oral LD_{50} in rodents is 1–4 g/kg of body weight (Smyth et al., 1941; Dow Chemical Co., 1982; American Cyanamid Co., 1982; Union Carbide Corp., 1982). The acute dermal LD_{50} in rats is 2.3–3.8 g/kg of body weight (Union Carbide Corp., 1982; American Cyanamid Co., 1982), and in rabbits it is 5.0 g/kg of body weight (RTECS, 1980). A 7- or 8-hour inhalation exposure to air saturated with vapors of 2-phenoxyethanol produced no untoward effects or signs of intoxication in rats (Union Carbide Corp., 1982; American Cyanamid Co., 1982).

Various studies have been conducted that demonstrate the antimicrobial properties of the compound (Hall, 1981; Maron et al., 1981).

D. *Long term (chronic) effects.* No information was found.

E. *Reproductive effects and teratogenicity:* A 5 week oral feeding study conducted in mice on a series of ethylene glycol monoethers (glycol ethers) indicated that certain of these compounds produce significant testicular atrophy. 2-Phenoxyethanol produced slight tubular degeneration in the testes of one mouse; however, only 5 animals were tested at each of 3 dose levels (i.e., 500, 1,000 and 2,000 mg/kg) (Nagano, et al., 1979).

A review of the literature on reproductive toxicity of glycol ethers disclosed that a number are teratogenic and/or produce testicular atrophy or infertility in laboratory animals following treatment (Hardin, 1982).

In inhalation teratology assays, 2-methoxyethanol and 2-ethoxyethanol were found to be teratogenic and embryotoxic in laboratory animals. 2-Ethoxyethanol exhibited the same effects in rats when exposed by the dermal route (NTP, 1982).

Manufacturers of glycol ethers are also studying the inhalation toxicity of 2-methoxyethanol and 2-ethoxyethanol. 2-Methoxyethanol was found to be teratogenic and fetotoxic in rabbits, slightly fetotoxic in mice, and fetotoxic in rats (CMA, 1982, 1983). Results of the study of 2-ethoxyethanol have not yet been received.

F. *Rationale for health effects recommendations:* Consumer and worker exposure is expected from the use of 2-phenoxyethanol in consumer products and in industrial solvents.

In view of the teratogenic effects of a number of alkyl glycol ethers and the lack of such data on 2-phenoxyethanol, testing for teratogenicity is recommended. Testing of 2-phenoxyethanol for other reproductive effects is also recommended since the one reported study addressed only one indicator of reproductive effects, and the results were equivocal. The route of administration in the recommended studies should be given careful consideration.

Structurally related glycol ethers were positive in several genotoxicity test systems. Since no relevant data on 2-phenoxyethanol were found, a battery of short-term genotoxicity tests should also be conducted. Finally, subchronic-effects testing is recommended to permit a more thorough evaluation of the toxocity potential of the compound.

IV. *Ecological effects.*

2-Phenoxyethanol is expected to have low toxicity to aquatic organisms and is not expected to bioconcentrate. The compound is also expected to biodegrade readily. For these reasons, ecological effects testing is not recommended.

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[PF-328; PH-FRL 2370-1]

Certain Companies; BFC Chemicals, Inc. et al.; Pesticide Petitions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA has received pesticide petitions relating to the establishment and/or amendment of tolerances for certain pesticide chemicals in or on certain commodities.

ADDRESS: Written comments to the product manager (PM) cited in each petition at the address below:

Registration Division (TS–767C), Office of Pesticide Programs, Environmental Protection Agency, 1921 Jefferson Davis Highway, Arlington, VA 22202.

Written comments may be submitted while the petitions are pending before the Agency. The comments are to be identified by the document control number [PF–328] and the petition number. All written comments filed in response to this notice will be available for public inspection in the product manager's office from 8:00 a.m. to 4:00 p.m., Monday through Friday, except legal holidays.

FOR FURTHER INFORMATION CONTACT: The product manager cited in each petition at the telephone number provided.

SUPPLEMENTARY INFORMATION: EPA gives notice that the Agency has received the following pesticide petitions relating to the establishment and/or amendments of tolerances for residues of certain pesticide chemicals in or on certain commodities in accordance with the Federal Food, Drug, and Cosmetic Act. The analytical method for determining residues, where required, is given in each petition.

A. Initial Filing

1. *PP 3F2879.* BFC Chemicals, Inc., 4311 Lancaster Pike, P.O. Box 2867, Wilmington, DE 19805. Proposes amending 40 CFR 180.402 by establishing tolerances for the combined residues of the herbicide diethatyl-ethyl and its metabolites (free and bound) determinable as the *N*-acetyl *N*-(2,6-diethylphenyl) glycine derivative in or on the commodities red beet, roots and tops at 0.2 part per million (ppm) and spinach at 1.0 ppm. The proposed analytical methods for determining residues is Raney nickel hydrogenolysis, derivatization, and gas chromatography. (PM–23, Richard Mountfort, 703–557–1830).

2. *PP 3F2883.* Merck & Co. Inc., P.O. Box 2000, Rahway, NJ 07065. Proposes amending 40 CFR 180.242 by establishing a tolerance for residues of the fungicide thiabendazole (2-(4-thiazolyl) benzimidazole in or on the commodity mushrooms at 40 ppm. The proposed analytical method for determining residues is spectrophotofluorometry. (PM–21, Henry Jacoby, 703–557–1900).

3. *PP 3F2882.* Merck & Co., Inc. Proposes amending 40 CFR 180.242 by increasing the established tolerance for residues of thiabendazole in or on potatoes (pre and post-H) from 3.0 to 8.0 ppm. The proposed analytical method for determining residues is spectrophotofluorometry. (PM–21, Henry Jacoby, 703–557–1900).

B. Amended Petition

PP 1F1105. Pennwalt Corp., Agricultural Division, Three Parkway, Philadelphia, PA 19102. EPA issued a notice published in the **Federal Register** of April 9, 1971 (37 FR 6848) which announced that Pennwalt Corp. had submitted pesticide petition 1F1105 to the Agency proposing the establishment of tolerances for negligible residues of the herbicide endothall (7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid) in or on the raw agricultural commodity sugar beets and in water at 0.2 ppm, resulting from the application of its dimethylalkylamine, potassium, or sodium salts as herbicides.

Pennwalt Corp. has amended the petition as follows:

1. Tolerances are proposed for residues of the herbicide endothall (7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid) resulting from application of its potassium, sodium, di-(*N,N*-dimethylakylamine) and mono-(*N,N*-dimethylalkylamine) salts wherein the alkyl group is the same as in the fatty acid of coconut oil in or on the following raw agricultural commodities:

Commmodities	Parts per million
Eggs	0.02
Fat, meat, and meat byproducts of cattle, goats, horses, sheep, and swine	0.02
Fish	0.1
Milk	0.02
Poultry	0.02
Sugar beet, roots	0.1
Sugar beet, tops	0.1

2. Tolerances are proposed for residues of the herbicide endothall (7-