(c) Meeting summaries of Agency-industry and Agency-public meetings.

(3) Testing proposal and protocols.

(4) Published and unpublished data.

(5) **Federal Register** notice requesting comment on the negotiated testing proposal and comments received in response thereto.

(Sec. 4, 90 Stat. 2003; (15 U.S.C. 2061))

Dated: December 20, 1982.

Anne M. Gorsuch,

Administrator.

[FR Doc. 82-35278 Filed 12-23-82; 4:48 pm]

BILLING CODE 6560-50-M

[OPPTS-42020 TSH-FRL 2237-8]

Hexachloro-1,3-Butadiene; Response to the Interagency Testing Committee

AGENCY: Enviromental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice constitutes EPA's response to the Interagency Testing Committee's recommendation that EPA require environmental effects testing of hexachloro-1,3-butadiene (HCBD) under section 4(a) of the Toxic Substances Control Act (TSCA). EPA is not initiating rulemaking under section 4(a) to require further environmental effects testing of HCBD. EPA does not believe that there is a sufficient basis to find that the current manufacture, distribution in commerce, processing, use, or disposal of HCBD may present an unreasonable risk to the environment. The available information indicates that HCBD is recognized to be a hazard to the environment at low levels and both voluntary and regulatory measures have been taken to control the release of HCBD to the environment.

FOR FURTHER INFORMATION CONTACT: Dougal G. Gannerman, Acting Director, Industry Assistance Office (TS-799), Office of Pesticides and Toxic Substances, Environmental Protection and Toxic Substances, Environmental Protection Agency, 401 M St. SW., Washington, DC, 20460, Toll Free: (800-424-9065), In Washington, DC: (554-1404), Outside the USA: (Operator-202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Background

Section 4(e) of TSCA (Pub. L. 94-469, 90 Stat. 2003; 15 U.S.C. 2601 *et seq.)* established an interagency Testing Committee (ITC) to recommend a list of chemicals for EPA to consider for promulagation of testing rules under section 4(a) of the Act. The ITC may designate substances on the list for priority consideration by EPA. TSCA requires EPA to respond to these designations by initiating rulemaking under section 4(a) or by publishing reasons in the **Federal Register** for not initiating rulemaking.

The ITC designated hexachloro-1,3-butadiene (HCBD) for priority consideration in its First Report, published in the **Federal Register** of October 12, 1977 (42 FR 55057), recommending that it be tested for the following environmental effects: aquatic fate, effects on aquatic organisms (invertebrates, fish, higher vertebrates, plants), and uptake by terrestrial plants and/or foraging species.

The ITC's recommendations were based on evidence of widespread distribution of HCBD in the aquatic environment, report of bioaccumulation in fish and other aquatic organisms, and the appearance of HCBD in some European agricultural products.

This notice provides EPA's response to the ITC's designation of HCBD for testing.

I. Decision Not to Initiate Rulemaking

EPA has decided not to initiate rulemaking to requre testing of HCBD under section 4 of TSCA because EPA does not believe that there is a sufficient basis to find that the current manufacture, distribution in commerce, processing, use of disposal of HCBD may present an unreasonable risk to the environment. HCBD appears to be widely recognized as a hazardous substance and both voluntary and regulatory measures have been taken to control the release of HCBD to the environment. Development of further environmental effects data would not be expected to play a significant role in further regulatory efforts.

The available information indicates that HCBD is recognized to be a hazard to the environment at low levels. Some of this information has become available since the ITC made its recommendation. HCBD has been characterized as very persistent in the aquatic environment. The logarithm of the octanol/water partition coefficient for HCBD has been estimated to be 4.78 indicating that HCBD is preferentially bound to organic matter (Ref. 1). Studies have demonstrated that HCBD preferentially binds to soil and sediments but that it also can be released from sediments back into the water column (Ref. 10). HCBD has been reported to have moved through soil into ground water from a waste disposal site (Ref. 19) and has been reported as ubiquitous at low levels (ug/L range) in surface waters in the U.S. (Ref. 18). HCBD has been shown to bioaccumulate in a wide range of aquatic organisms to 2-3 orders of magnitude over water concentrations (Refs. 7, 10, 12, 15). Several studies indicate that HCBD does not biomagnify along food chains (Refs. 7, 10, 15).

Studies on the effects of HCBD show that fish and aquatic invertebrates demonstrate acute effects at concentrations (LC_{50}s) between 100 and 1,000 ug/L of HCBD (Refs. 10, 11, 12, 21). A study of chronic effects resulted in an estimated maximum acceptable toxicant concentration (MATC) level of 9.3 ug/L for an embryo-larval study of the flathead minnow, with an acute-chronic ratio of 11 (Ref. 20). Exposure to 3.7 ug/L for up to 10 days has produced evidence of hepatopancreatic damage in crayfish (Ref. 10). Marine crustaceans appear more sensitive with acute static tests showing lethal concentration (LC_{50}) values as low as 59 and 32 ug/L for mysid and grass shrimp (Ref. 21).

In recognition of the hazard HCBD poses to the environment, both voluntary and regulatory measures have been taken to control the release of HCBD to the environment. There are currently two sources of HCBD in the U.S.: (1) Imports and (2) HCBD-containing hex-wastes resulting from the production of chlorinated hydrocarbons. In 1981, 145,000 pounds of HCBD were imported into the U.S. (Ref. 8). The major domestic use of imported HCBD is as a chemical intermediate in the manufacture of rubber compounds (Refs. 8 and 24). Small quantities also are apparently used as a laboratory reagent (Ref. 17). Confidential business information received by the Agency, from industry demonstrates that very little HCBD is released to the environment through these uses (Ref. 13). Previously, HCBD was used as a solvent for the recovery of chlorine-containing gas in chlorine plants. More recent information indicates that HCBD is no longer being used in this process (Refs. 2, 4, 14, 23).

The predominant source of HCBD in the U.S. (approximately 99.5 percent of the annual volume of 28 million pounds) is inadvertent production as a waste by-product from the production of certain chlorinated hydrocarbons (Refs. 2, 3, 6, 9, 14, 16, 23). The waste streams, known as "hex-wastes", typically contain 33-80 percent HCBD. The HCBD is not recovered from the hex-wastes, but is disposed of by various methods. Over the last 10 years, disposal practices for hex-wastes have shifted from landfill operations to incineration. In 1982, manufacturers reported that of the approximately 27 million pounds of HCBD generated annually as hex-wastes, approximately 68 percent is now

disposed of by incineration, 32 percent by deepwell injection and less than 0.2 percent by hazardous waste landfill operations (Refs. 2, 3, 6, 9, 14, 16, 23). The incinerators used for this purpose reportedly achieve greater than 99.99 percent destruction efficiency (Refs. 3, 6, 14, 23). Monitoring data from 1982 indicate HCBD levels released were below a detection level of 10 ppb in incinerator and process water effluents and in incinerator air emissions (Ref. 14).

On the basis of the above information, it is estimated that of the approximately 19 million pounds of HCBD incinerated per year, less than 1,900 pounds would be released to the environment. Exposure modelling by EPA produced worst case water concentration estimates of less than 0.1 part per trillion (ppt) HCBD in shallow ponds adjacent to incinerators (Ref. 22). EPA believes that HCBD concentrations in water bodies farther away from incinerator sources would be much lower. Even taking into consideration the persistence of HCBD, it is not expected that at this release rate environmental levels would reach significantly high levels.

Underground injection is subject to permits issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act (Pub. L. 95-523, as amended) according to regulations contained in 40 CFR Parts 122, 123, 124, and 146. Underground injection under these regulations is designed to avoid release to the environment. Some hex-wastes also contain polychlorinated biphenyls (PCBs) at levels exceeding 50 ppm (Refs. 2, 3, 6, 14, 23) and thus must be handled according to the regulations governing PCBs under TSCA, 40 CFR Part 761. These regulations include disposal in EPA-approved incinerators (99.9999 percent destruction efficiency), secured landfills, or high-efficiency boilers.

Finally, regulatory action under the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580, as amended) is being directed toward the proper disposal of HCBD. The generation, treatment, storage, and disposal of HCBD-containing wastes are all subject to RCRA regulations. HCBD and hex-waste streams are listed as hazardous wastes under RCRA, 40 CFR Part 261. Although data gaps do exist for HCBD (e.g., rate of anaerobic degradation, chronic toxicity to marine invertebrates and benthic organisms, effects on aquatic plants), the available environmental effects data, showing HCBD is toxic at low levels, combined with human health data, showing HCBD is carcinogenic, already appear to be adequate to support regulatory controls sufficient to protect from potential unreasonable environmental risk from this chemical. Therefore, EPA believes that data from further environmental effects testing would be unlikely to have regulatory significance to further RCRA control efforts.

HCBD is also present as an intermediate in the production of chlorofluorocarbons. However, the HCBD is generated and entirely consumed within the closed manufacturing process. The manufacturer estimates that a total of less than 70 pounds of HCBD per year are released into the environment from storage tanks, equipment cleaning, sampling, etc. (Ref. 5).

It is anticipated that only very small quantities of HCBD will be released to the environment in light of the current importation volume and uses of HCBD, the handling and disposal practices for HCBD-containing hex-wastes, and the voluntary and regulatory actions taken to limit HCBD releases. Although biological activity has been observed for HCBD at low (ppb) levels, considering current control measures for this chemical and the resultant low release levels, the Agency believes there is not a strong basis for concluding that HCBD may present an unreasonable risk at the levels expected in the environment. EPA, therefore, believes that further environmental effects testing of HCBD is not warranted at this time.

If monitoring data or other data indicate an increase in release or exposure to HCBD or if a lack of data proves to be a barrier to further regulation, this decision not to require testing will be reconsidered at that time.

III. References

(1) Bannerjee, S., Yalkowsky, S. H., and Valvani, S. C., "Water Solubility and Octanol/Water Partition Coefficients of Organics. Limitations of the Solubility-Partition Coefficient Correlation." Environ. Sci. Technol. 14(10):1227-1229, 1980.

(2) Diamond Shamrock, May 11 Letter to S. Newburg-Rinn (EPA), 1982.

(3) Dow Chemical Company, April 20 Letter to S. Newburg-Rinn (EPA), 1982.

(4) Dow Chemical Company, April 27 Letter to S. Newburg-Rinn (EPA), 1982.

(5) E. I. du Pont De Nemours & Company, May 21 Letter to S. Newburg-Rinn (EPA), 1982.

(6) Ethyl Corporation, May 10 Letter to S. Newburg-Rinn (EPA), 1982.

(7) Goldbackh R. A. van Genderen, H., and Leeuwangh, P., "Hexachlorobutadiene Residues in Aquatic Fauna from Surface Water Fed by the River Rhine." Sci. Total Environ. 6(1):31-40, 1976.

(8) Huels Corporation, April 22 Letter to N. Merrifield (EPA), 1982.

(9) LCP Chemicals—West Virginia, Inc., April 27 Letter to S. Newburg-Rinn (EPA), 1982.

(10) Laseter, J. L., Bartell, C. L., Laska, A. L., Holmquist, D. G., Condie, D. B., Brown, J. W., Evans, T. L., "An Ecological Study of Hexachlorobutadiene (HCBD)." U.S. Environmental Protection Agency, EPA 560/6-76-010, 1976.

(11) Laska, A. L., Bartell, C. K., Condie, D. B., Brown, J. W., Evans, R. L., Laseter, J. L., "Acute and Chronic Effects of Hexachlorobenzene and Hexachlorobutadiene in Red Swamp Crayfish (*Procambarus clarki*) and Selected Fish Species." Toxicol. Appl. Pharmacol. 43:1-12, 1978.

(12) Leeuwangh, P., Bult, H., Schneiders, L., "Toxicity of Hexachlorobutadiene in Aquatic Organisms." In: Sublethal Effects of Toxic Chemicals on Aquatic Animals, Proc. Swedish-Netherlands Symposium, September 2-5, Elsevier Sci. Pub. Co., New York, 1975.

(13) Mallinckrodt Corporation, May 6 Letter to S. Newburg-Rinn (EPA), 1982. Submitted as Confidential Business Information.

(14) PPG Industries, Inc., May 19 Letter to S. Newburg-Rinn (EPA), 1982.

(15) Pearson, C. R., McConnell, G., "Chlorinated C_1 and C_2 Hydrocarbons in the Marine Environment." Proc. R. Soc. Lond. B. 189:305-332, 1975.

(16) Stauffer Chemical Co., September 2 Letter to S. Newburg-Rinn (EPA), 1982. Submitted as Confidential Business Information.

(17) U.S. Environmental Protection Agency, April 20, Personal communication between N. Merrifield (EPA) and W. Hagen (Davos Chemical Co.), 1982.

(18) U.S. Environmental Protection Agency, "STORET Data for Water, Fish, and Sediment." Washington, DC, 1980.

(19) U.S. Environmental Protection Agency, Unpublished Hazardous Waste Incidents, Washington, DC, 1978.

(20) U.S. Environmental Protection Agency, Unpublished Laboratory Data, Environmental Research Laboratory—Duluth, Minnesota, 1980.

(21) U.S. Environmental Protection Agency, Unpublished Laboratory Data, Environmental Research Laboratory—Gulf Breeze, Florida, 1980.

(22) U.S. Environmental Protection Agency, Unpublished ToxScreen Data on HCBD, Washington, DC, 1982.

(23) Vulcan Chemicals Co., May 6 Letter to S. Newburg-Rinn (EPA), 1982.

(24) Mallinckrodt, Inc., December 22 Letter to MATHTECH, 1980.

IV. Public Record

EPA has established a pubic record for this testing decision (docket number OPTS-42020) which is available for inspection in the OPTS Reading Room from 8:00 a.m. to 4:00 p.m. on working days in Rm. E-107, 401 M St. SW., Washington, D.C. 20460. This record includes basic information considered by the Agency in developing this decision such as:

(1) Federal Register notice containing the designation of HCBD to the Priority List.

(2) Public comments on the ITC report.

(3) Communications (public, intra-agency, and interagency) consisting of memoranda and letters, contact reports of telephone conversations, and meetings.

(4) Published and unpublished data.

The Agency will supplement the record with additional relevant informaiton as it is received.

(Sec. 4, 90 Stat. 2003; (15 U.S.C. 2601))

Dated: December 20, 1982.

Anne M. Gorsuch,

Administrator.

[FR Doc. 82-35273 Filed 12-23-82; 4:12 pm]

BILLING CODE 6560-50-M

[OPTS-42014; TSH-FRL 2234-4]

Pyridine; Response to the Interagency Testing Committee

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice is EPA's response to the Interagency Testing Committee (ITC) designation of pyridine for consideration for health and environmental effects testing under section 4(a) of the Toxic Substances Control Act (TSCA). EPA has decided not to initiate rulemaking to require testing of pyridine under section 4(a) of TSCA for carcinogenicity, chronic effects, or environmental effects. EPA has concluded that sufficient data have been or are being developed on pyridine for carcinogenicity and chronic effects by the National Toxicology Program. EPA is not initiating rulemaking to require testing of pyridine for environmental effects because the Agency has found no evidence of substantial environmental release of pyridine and, because pyridine is not likely to persist or bioaccumulate, no reason to believe pyridine may present an unreasonable risk to the environment. EPA has made tentative decisions not to initiate rulemaking to require testing of pyridine for mutagenicity, teratogenicity, or neurotoxicity at this time. Considering the numbers of people exposed, the probable levels of exposure, and the nature of existing data, the Agency has concluded that a finding that pyridine may present an unreasonable risk for these effects is not warranted. Because of the difficult nature of the issues involved, EPA is soliciting comment and submission of any additional data relevant to the Agency's tentative decisions.

DATES: Submit written comments on or before February 14, 1983.

ADDRESS: Written comments should bear the document control number OPTS-42014 and should be submitted in tripicate to: Document Control Officer, Management Support Division (TS-793), Office of Pesticides and Toxic Substances, Environmental Protection Agency, Rm. E-401, 401 M St. SW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Douglas G. Bannerman, Acting Director, Industry Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-511, 401 M St. SW., Washington, DC 20460, Toll Free: (800-424-9065), in Washington, DC (554-1404), outside the USA: (Operator 202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Background

Section 4(e) of TSCA [Pub. L. 94-469, 90 Stat. 2003; 15 U.S.C. 2601 *et seq.*] established an Interagency Testing Committee (ITC) to recommend a list of chemicals for EPA to consider for promulgation of testing rules under section 4(a) of the Act. The ITC designated pyridine for testing in its Second Report, published in the **Federal Register** of April 19, 1978 (43 FR 16684), and recommended that pyridine be evaluated for: (1) Carcinogenicity, (2) mutagenicity, (3) teratogenicity, (4) other chronic effects on the liver, kidney and central nervous system, (5) environmental effects, and (6) epidemiology.

The basis for the ITC recommendations was that: (1) Sixty million pounds of pyridine were reported to be produced in 1976, (2) the National Institute for Occupational Safety and Health (NIOSH) estimated that 249,000 persons might be exposed to pyridine, and (3) there was a paucity of data and a lack of long-term tests on the effects of pyridine on human health and the environment.

This notice is EPA's response to the ITC designation of pyridine for testing.

II. Decisions Not To Initiate Rulemaking

The Agency is not initiating rulemaking to require testing of pyridine for carcinogenicity and for chronic effects on the liver and kidney because a subchronic test and an oncogenicity bioassay using rats and mice have been conducted by the National Toxicology Program (NTP). The animals from the bioassay were sacrificed in January, 1982, and the results will be available for review in 1983. It is expected that these tests will prove adequate to determine pyridine's oncogenicity and its chronic effects on the liver and kidney.

EPA is not initiating rulemaking to require testing of pyridine for chronic environmental effects because the Agency has found no evidence of substantial environmental release of pyridine and no reason to believe that pyridine may present an unreasonable risk to the environment. The present pattern of use of pyridine appears to preclude substantial release of pyridine. Of the less than 26 million pounds (12 million kilograms) of pyridine produced in the U.S. each year, approximately half is exported (Ref. 34). Up to 80 percent of the remaining pyridine is converted into other chemicals, i.e., agricultural chemicals, such as herbicides and insecticides, pharmaceuticals, and chemicals such as piperidine for use in the rubber industry (Ref. 34).

Most of the residual 20 percent of the pyridine used in the U.S. is used as a reaction solvent in chemical manufacturing or as a component of the Karl Fischer reagent in laboratories. Because of the high cost of pyridine, the chemical is recovered and recycled when used as a chemical solvent. In the Karl Fischer reaction, the pyridine is fully spent in the reaction. The pyridine industry reported that in 1977, 660,000 pounds of pyridine were disposed of, half of it via publicly owned treatment works (Ref. 34). Because this figure does not distinguish between input into treatment systems and ultimate environmental release, ultimate environmental release of pyridine is likely to be lower than this figure indicates. There are limited data on pyridine being present in industrial effluents (Ref. 38), in aqueous effluents from coke-oven quenching operations at 11 ppm (Ref. 10) and from coal gasification operations in the range of 0.1 to 0.2 ppm (Ref. 33). No reports were found in the EPA STORET data base on the presence of pyridine in ambient waters.

In addition, pyridine is not likely to be persistent in the environment because it has been shown to be readily metabolized by several microorganisms (Refs. 8, 12, 16, 17, 39 through 42, and 45). Based upon its physicochemical properties, pyridine is also not expected to bioaccumulate (Ref. 25). The octanol/water partition coefficient for pyridine is quite low, i.e., log P=0.65 (Ref. 25). Because pyridine is not likely to persist in the environment and is not likely to bioaccumulate, EPA finds no basis to believe that there is a potential for long-term exposure to pyridine in the